DATE 6 APR 1977

The Lettsomian Lectures

160 p

[illegible] HEART [illegible] ADVANCED LIFE.

Delivered before the Medical Society of London on March 4th and 18th and April 1st, 1901,

BY J. MITCHELL BRUCE, M.A., LL.D. ABERD., M.D., F.R.C.P. LOND.,

PHYSICIAN TO CHARING-CROSS HOSPITAL; CONSULTING PHYSICIAN TO BROMPTON HOSPITAL FOR CONSUMPTION, &c.

LECTURE III.[1]

Delivered on April 1st.

MR. VICE-PRESIDENT AND GENTLEMEN,—In this the concluding lecture of the series I will attempt to deal with the applications of the facts and considerations which I submitted to you on the two previous occasions when I had the honour to address you. I trust that what I submitted to you then proved to be of some interest. Let us see now whether it is practically useful. However much the etiology and pathology of the diseases and disorders of the heart and arteries in middle and advanced life may deserve study as matters of natural history, we should be disappointed if they could not be turned to account in prognosis and treatment. These are the subjects which I propose to discuss this evening.

Now, prognosis and treatment, to be rational and useful, have to be based on as full and as correct a diagnosis as knowledge permits. The present disposition is to fall short of this, to rest cont[illegible] to diagnosis. We say that the patient's [illegible] "arterial degeneration," ar[illegible]eration." But you will remember that we have found that cardiac dilatation may be present in every kind of cardio-vascular degeneration, that the arteries are naturally enlarged and thickened after middle life, and that we refused to call these changes morbid. Clearly, therefore, a purely anatomical diagnosis of this sort is insufficient. If you are asked what the prognosis is of fatty degeneration of the heart you answer that [illegible] you must first be told whether syphilitic or gouty disease of the coronary arteries, or strain, or alcoholism, or phosphorus poisoning, or anæmia is the cause of it. [illegible] When you are planning the treatment of dilatation of the heart you first determine whether the dilatation is a result of the stretching of a sound heart by over filling during muscular effort or of the insufficient emptying of failing chambers with degenerated and feeble walls. Obviously what we ought to determine in these instances and in every instance is the origin of the disease. The ultimate diagnosis to be reached for practical purposes is the etiological diagnosis. Is this possible? Does our knowledge of the nature, characters, and course of these cardio-vascular affections enable us to say after investigating a case what the kind of the pathological change is that constitutes the disease or in what respect the physiological mechanisms are disordered? Can the cause of senile degeneration of the heart and arteries be determined in each instance? How is the practitioner to proceed to do so? What method might be followed with advantage in making a complete diagnosis of heart disease in older subjects?

A man, 60 years of age, consults us about his heart. He says that it has given him a good deal of trouble lately. More specifically he describes a sense of oppression behind the sternum as often as he exerts himself and palpitation with consciousness of irregular cardiac action when he goes to bed. We inquire for other familiar cardiac symptoms, such as pain, angina, fluttering, faintness, giddiness, and a sense of impending death. We find that one or more are present occasionally and that they have increased in number and degree during the last few months or years. Perhaps cough, nocturnal orthopnœa, and dropsy may be beginning to give trouble. The next part of the inquiry relates to the patient's previous history from childhood upwards. Which of the acute diseases has he had? Acute rheumatism, chorea, scarlet fever, typhoid fever, diphtheria, and influenza must be mentioned individually, and in women the nature of any puerperal disease from which they may have suffered. Gout, irregular gout, gravel, eczema, sick headache, and asthma must be inquired after with the same minuteness, and so must syphilis. We next hear an account of any accident which the patient may have met with, such as a blow or a fall from a horse or a carriage. This brings us naturally to question him about his occupation and modes of relaxation and amusements, whether active or sedentary, regular or irregular, their character [illegible] including strain. More [illegible] of the patient's habits [illegible] and tobacco, and his [illegible] said in my first lecture, [illegible] practitioner has an opportunity to carry out much more successfully than the hospital physician or consultant. The family practitioner has known for years of his cardiac patient's work and worries; it may be of his large eating, of his secret drinking, of the history of syphilis in earlier years. It is always well also to inquire after a family history of gout, rheumatism, and heart disease. A list of questions like this sounds far more formidable than it is in reality. A few minutes suffice to arrive at the truth. We already have a pretty fair notion what we have to deal with—whether strain, gout, syphilis, tobacco, an old rheumatic lesion, or a combination of two or more of these. We next proceed to physical examination, beginning with the pulse and arteries, and passing on to the heart and associated structures. The characters of the præcordial impulse, particularly the seat of the apex beat and the strength of the impulse, are closely—I might almost say laboriously—investigated. We must never yield to the temptation to disregard weakness or absence of the impulse. Like many other negative signs, it is apt to be overlooked. Then the præcordial dulness is mapped out by means of light percussion. Finally, auscultation reveals to us the presence or absence of murmurs and the characters of the sounds—in the standing and recumbent postures, and if necessary after a little exertion. The relative loudness of the first and second sounds over the different parts of the præcordia is particularly worthy of note.

Now let us suppose that we have found a mitral systolic murmur. We ask ourselves whether it is structural or whether it is functional—that is, due to relaxation and dilatation of the ventricular walls. If structural, with which (if any) of the diseases elicited in the man's previous history would it correspond? Most probably with gout or glycosuria. Thus we attempt to connect the lesion with its cause and the cause with its effects, and have reached the ultimate diagnosis. So with other valvular murmurs; for example, aortic diastolic murmur proves to be related to syphilis. If there be no murmur audible we naturally think of dilatation with failure, or of enlargement from strain, from Bright's disease, from arterial sclerosis, from emphysema, from an insufficient or impure blood supply in the coronary arteries, from disordered innervation, or from some rarer cause, such as adherent pericardium; and, again, with these associations in our minds we review once more the patient's history and ge[illegible] the principal signs and symptoms which I detailed to you in my last lecture, considered in the reverse order on this occasion, some of which are of real value in differentiating the causes of cardio-vascular degeneration. To begin with negative facts, a mitral presystolic murmur is never significant of a senile lesion. Secondly, when we meet with an aortic diastolic murmur, whether alone or along with an aortic systolic murmur, we may safely conclude that we have to deal with something more than atheroma produced by regular or irregular gout and associated metabolic disturbance, cardio-vascular disease of nervous origin, and alcoholic or tobacco heart, even if there be evidence of the presence of one or more of these in the case. Aortic incompetence developed in later life is the result of syphilis or of acute or chronic valvular strain; but of course many instances of this lesion met with after the age of 40 years can be traced to juvenile endocarditis of rheumatic or other origin. Always a serious lesion, aortic incompetence due to syphilis or to syphilis and strain is particularly grave as being so frequently associated with coronary disease and consequent myocardial degeneration—fatty or fibroid acute softening and sudden fatal failure. A fully-developed basic systolic murmur audible over the aortic area and manubrium and along the course of the carotid is a very common sign of atheroma of the aortic arch and valves and great vessels in association with regular or irregular gout, diabetes, corpulence, and allied disorders of nutrition. It is also one of the physical signs of syphilitic and traumatic affections of the aorta and aortic valves and of remote endocarditis. Further, these lesions are so often accompanied by similar degenerations in the coronary arteries and consequent myocardial degenerations that the basic systolic murmur ought, at least, to raise the suspicion of this in the observer's mind. An ill-developed basic systolic murmur is not uncommon in alcoholism, chronic Bright's disease, and nervous strain, but is difficult to dissociate from anæmia. A fully-developed and audible systolic murmur in the mitral area (I mean independently of ventriculo-auricular leakage in cardiac failure) is usually traceable to early endocarditis of rheumatic or other origin, rarely to injury, including ordinary juvenile strain of the valves or walls or to Graves's disease. In some instances it is unquestionably due to valvular atheroma and attendant sclerosis caused by gout or other disturbances of metabolism, including the effects of free living; and in these instances the observer must not overlook the possible association of coronary disease and fatty degeneration. If a systolic mitral murmur prove to be somewhat indefinite and affected by posture, cubitus, and effort, to vary under observation from day to day, and to disappear under treatment, it is of no more value to us in differential diagnosis than that it signifies relaxation and weakness, or disorderly action, of the left ventricle, consequent on any one of the recognised causes of failure or disturbance of the heart, including the different cardiac poisons, overwork, anæmia, acute disease, poverty, and the like, and this, whether in a heart previously sound, or previously enlarged, or previously the seat of valvular disease. An accentuated ringing second sound in the aortic area or more extensively is of great value in the diagnosis of arterial tension and aortic atheroma, or of both, but it is associated with far too many different causes to be of much use in differential diagnosis. It should suggest a most careful search for Bright's disease. Slight reduplication of the first sound is common over senile hearts strained in youth and hearts degenerated by alcoholism and metabolic disorders, and everyone knows that it is not unusual in a variety of other conditions, healthy and morbid. On the other hand, the *bruit de galop* or cantering rhythm of cardiac sounds—definite doubling of the first sound followed by loud, accentuated, ringing second sound—is practically pathognomonic of Bright's disease, and is one of the most valuable, because one of the most ominous, of physical signs in connexion with the cardio-vascular system. A normally sized heart with irregularity, increased frequency, and a variable systolic murmur in the mitral area is characteristic of tobacco poisoning. A heart enlarged on both sides and acting irregularly without murmur is, apart from cardiac failure, suggestive of strain in early life.

---

[1] Lectures I. and II. were published in THE LANCET of March 9th (p. 692) and 23rd (p. 844), 1901, respectively.

Cardiac symptoms taken individually are of less diagnostic value than signs. No symptom is pathognomonic. Palpitation is a nearly universal phenomenon of cardiac disease and disorder. Faintness and actual faints are not uncommon in cases of early cardiac strain, gouty heart, and nervous disturbances. Angina we meet with, you will remember, in regular and irregular gout, tobacco heart, strain (especially strain after the age of 40 years), and in syphilis and alcoholism, whilst pseudo-angina is extremely common in nervous women; thus it is of less diagnostic value than might have been expected. A high tension-pulse I have found most often in juvenile strain and cardio-vascular affections of nervous origin, a low-tension pulse in connexion with alcoholic and tobacco-poisoning and with senile strain.

When we review these facts I think we are entitled to conclude that the physical signs and symptoms carefully determined by clinical investigation may be confidently employed, along with the patient's previous personal history and the history of his present illness, to differentiate from each other the causes of cardio-vascular degeneration in individual cases; and, further, that they inform us of the seat of at least some of the lesions, valvular, parietal, and vascular. A little trouble, patience, and attentive observation are all that are required to reach a complete or working diagnosis. Now we may approach the great practical subjects of prognosis and treatment with some confidence.

PROGNOSIS.

Beginning with the simplest kind of cardio-vascular disorder let us see what the prognosis is in tobacco-heart. You will have gathered from what I had to say on this subject in my last lecture, and, indeed, you know as men of observation and experience, that it is comparatively favourable. All the cases I have had an opportunity to watch did well, provided the cause of their distress was avoided and the heart and vessels were otherwise healthy. Further, improvement begins early, and it may be rapid and recovery complete; but you will remember that one patient whose case I detailed to you continued to have alarming angina for six months after giving up tobacco. Recurrence attends resumption of the habit, and some of its votaries contrive to continue to smoke just short of inducing serious discomfort. Unless a successful effort at reform be made cardiac trouble continues indefinitely. But even then I cannot say that I have seen serious damage done by tobacco alone in sound hearts, nor arterial sclerosis, as has been stated by some authorities.

An entirely different and most unfavourable estimate is to be formed of the prospect of life in the alcoholic heart. Naturally a certain proportion of cases recover if the disease be of recent development, the condition uncomplicated, and treatment faithfully carried out. Unfortunately, as a rule, we have to deal with alcoholism in which all these conditions of success are wanting. The habit is established, other organs besides the heart are involved, other diseases than alcoholism are present, and the patient has neither the inclination nor the power to follow our advice. Cirrhosis, neuritis, and dementia complicate the cardiac degeneration, or, more correctly, it complicates one or all of these. Chronic Bright's disease is made to account for a number of deaths in the mortality returns that strictly belong to alcoholism. Occasionally the end comes suddenly from fatty degeneration or in the course of some acute disease; otherwise, as we have seen, by slow cardiac failure and dropsy.

Prognosis in gouty heart—including the heart of the man with goutiness, glycosuria, and other irregular forms of the disease—is a subject of considerable practical difficulty. In my last lecture I read to you a short account of the case of a friend of my own who had had occasional attacks of gouty angina for 40 years. And certainly a large proportion of the old ladies of 60 or 70 years of age whom you all have had as patients for years on end with weak heart and systolic murmur in the aortic area owe their disablement to gout, if my observations are correct. The lesion proper of the aorta and aortic valves in these cases is atheroma, but the damage is accompanied with repair in the form of sclerosis, which by increasing the loudness of the bruit adds unreasonably to our anxiety about the case. Equally certain it is that patients belonging to this class improve under treatment. Still, the condition of arrest cannot go on indefinitely. In addition to extrinsic dangers, particularly those of Bright's disease, cerebral thrombosis, and hæmorrhage and bronchitis, failure of the heart is liable to supervene and prove fatal from the gravest of all intrinsic causes—namely, coronary degeneration. As this increases the myocardium is steadily more and more impoverished, its contractile vigour declines, and residual dilatation of the chambers sets in with mechanical congestion of the viscera. Complaints of "the heart" increase, the breathing becomes oppressed, the face assumes more and more the characteristic "cardiac" appearance, and dropsy creeps up the lower limbs. Even then the prognosis is not hopeless, for undoubtedly a certain proportion of cases of dropsy in old persons with degenerated heart and vessels are still amenable to rational treatment. But the case has ionally a more dramatic termination. As I was able to to after my second lecture by a specimen from the um of Charing-cross Hospital a branch of one of the onary arteries that has been narrowed by atheroma for an efinite length of time, with consequent cardiac weakness and discomfort, may any moment become thrombosed rapi y, apparently in consequence of some passing or other unfavourable influence, just as in thrombosis degenerated cerebral vessels. Fatal angina is the result. This is a point of great practical importance—that sudden eath will occur in old gouty subjects, not from the lesion of which a basic or an apical systolic murmur is the evi and which causes us concern, but from associated coronary atheroma which we probably never suspect; indeed, that it may occur in those subjects with no murmur whatsoever to attract our attention and excite our fears.

Still more unfavourable must be the forecast in syphilitic lesions of the heart and vessels Of 18 of my cases in which the result was known only one half improved under treatment, and 20 per cent. of them died within a few years, some indeed within a few weeks of the discovery of their disease. Cardiac failure accounts for most of the deaths, whether developed gradually with dropsy, which proves to be intractable; or progressing rapidly with great cardiac distress, including angina; or occurring suddenly, as it often does Aneurysm makes its appearance in other instances of which the patient dies, or he is carried off by general paralysis or Bright's disease.

What prospect have we to hold out to the man who has strained the walls of his heart by muscular effort? I believe that one can speak with some confidence on this subject. The middle-aged patient who over-stretched his cardiac walls as a youth may be comforted with the opinion that the condition is not a fatal one. The average duration of 11 cases of this order I found to have been 30 years when they came under my observation; the minimum duration was nine years, the maximum 50 years. This last case deserves particular mention. The patient was first seen by me for failure of the heart with cardiac dropsy consequent on fresh breakdown after exertion during a holiday; and it is most encouraging to observe that compensation was restored by treatment and that now, 12 months after that event, the patient is not only alive but able to carry on light professional work. This case also illustrates what I have told you respecting the course of the affection and the prospect before the patients in long-standing strain—that there is continual liability to fresh embarrassment of the heart during exertion in which they appear to have a lasting inclination to indulge.

Neither is strain of the heart for the first time after the age of 40 years by any means so grave as might be expected. Of course, sudden muscular effort occasionally accounts for sudden death in old men. But it is astonishing how under such circumstances quite old persons do recover from conditions of extreme distress lasting acutely for half an hour—for instance, after running with a heavy bag to catch a train. The majority of my patients described their condition as improved after a time, but others relapsed; and on the whole the correct prognosis is that they must expect to remain variously disabled—that is, liable to præcordial distress and dyspnœa on more than moderate exertion or when subjected to circumstances of other kinds that tax the heart

Cardio-vascular disorder and disease referable to nervous strain, pure and simple, is amenable to treatment by complete and prolonged rest or relaxation in the majority of instances. Still, death may occur from sudden cardiac failure; or should advice be neglected or soon forgotten, as happens so frequently in these subjects, the attendant high arterial tension and vascular degeneration too often end in cerebral lesions with or without Bright's disease. Of chronic Bright's disease itself and the associated cardio-vascular changes in their prognostic aspects I need not speak except to say that along with syphilis it is by far the most hopeless of all these affections.

In attempting to forecast the life of a man who is the subject of cardio-vascular degeneration in middle or advanced life we must not forget the possibility of the intercurrence of acute disease. Here is a large subject for us as practical men—one far too large and important for discussion here: the effect, for instance, of the existence of enlargement of the heart and an irregular and thickened pulse on the prognosis of influenza, or, let us say, on the chances of a successful issue after operation Very naturally, unsound vessels and a murmur over the præcordia weigh heavily against the prospect of recovery from pneu- [illegible] mple, and yet how often do we not find a patient of the age of 70 years with [illegible] extending outwards [illegible] one or both of these disturbing conditions come safely through such an illness Here, again, I believe it is in greater measure the true nature of the old-standing disease, not the physical signs, such as irregularity of pulse or mitral bruit, that ought to be taken into account. A heart enlarged and a radial artery thickened by prolonged activity and nothing el[illegible] will suffice to carry a man safely through an attack of influenzal pneumonia; but what chance is there for the [illegible]ronic alcoholic under similar circumstances or for the subject of chronic Bright's disease?

So much for the general *prognosis* in *each* of these kinds of cardio-vascular disorder and disease. But it is the particular prognosis that we have to attempt to estimate—that is, the prognosis in the individual patient as he comes before us and asks us that trying question: What is my prospect of life and health? We have to do our best to apply such conclusions as those which I have just submitted to you, and at the same time to estimate as correctly as possible the man's personal condition, character, and disposition. After all that may be determined by an analysis of a large number of these cases the patient's prospects in disease of the heart of every kind, degeneration included, greatly depend on how he takes care of himself.

TREATMENT.

Not the least advantage of the etiological standpoint of our survey of the disorders and diseases of the heart and arteries in middle and advanced life is the rational as well as hopeful line of treatment which it enables us to pursue. On the whole we can control morbific influences far more than we can alter pathological processes, and, what is of equal or even greater importance, a knowledge of the causes of disease often enables us to prevent what we could not possibly cure For all that, the etiology of heart disease furnishes us with but one set of many invaluable indications for treatment We must have also a clear mental picture of the pathological anatomy of the conditions which we would attempt to modify—for instance, of the damage wrought by gout on the mitral valves and aortic arch, by syphilis on the coronary arteries, and by strain on the walls of the different cardiac chambers. No less necessary is it for the practitioner to take into account before proceeding to prescribe the clinical characters and course of the case in hand. As I have said more than once already, a large proportion of the distress, disabilities, and dangers attending degeneration of the heart are due to some additional or extrinsic disturbance—distension of the stomach, constipation, worry, or exertion, which alone, not the pathological condition, calls for therapeutical attention It appears, then, that the whole natural history of the diseases and disorders of the heart, and I might add of every individual case, has to be studied and the value of its different parts absolutely and relatively estimated before rational treatment can be ordered. How different will treatment be if ordered on these principles from the routine procedure of prescribing a little strychnia and digitalis for a man with oppression on exertion and a systolic bruit at the base of his heart.

Let us begin this part of our subject with a brief consideration of preventive treatment founded on a knowledge of the cause at work. Now the first thing to strike us about these unfavourable influences is the number of them that could be avoided or controlled successfully by simple exercise of the will. The toxic effects of tobacco, alcohol, tea, &c, are due to abuse, from thoughtlessness or ignorance, or from indisposition rather than inability to exercise self-control. The abuse of tobacco appears to create so much discomfort or even alarm, of a kind which the sufferer cannot fail to refer to its cause, that the remedy is effected automatically and no great harm is done. We seldom have to do more than confirm the patient's suspicions in this direction and recommend temporary abstinence from the cigarette or pipe and greater care in the future. With alcohol it is a different matter. Alcoholism grows by what it feeds on and our best efforts are often vain. The present is hardly an occasion for dwelling on this subject—the duty of the profession to their patients and friends in respect of the abuse of alcohol Still, I should not feel that I had discharged to the best of my ability, or in full conformity with my strong convictions, the duties of the honourable position which by your favour I occupy as Lettsomian lecturer if I did not urge you to exercise more fully than is at present exercised your personal influence to discourage habitual drinking. I believe (because I have found) that many men who are not open to arguments of an abstract kind can be made to pause and reconsider their manner of living by having a concrete presentment of their condition and its results placed before them —in plain English, by being thoroughly frightened. "Heart disease" is a powerful argument to employ with persons of this class and it is one that is also justified by the issues at stake. Of syphilis and the havoc that it works on the heart, the aorta, and the vascular system generally, but particularly within the nervous system, I need not speak. The profession, as I have said, is not yet sufficiently alive to it; what can the public be expected to do in the way of prevention? Gout, corpulence, and allied metabolic disorders, those fruitful sources of cardio-vascular disorders and atheroma, call for temperance not only in drinking but in eating. Whilst the question continues to be discussed which particular articles of food ought to be avoided by gouty individuals, let us all join in offering them one bit of advice of the value of which there can be no doubt—whatever they eat, to eat little. Moderation in amount is, speaking broadly, far more important than avoidance of the theoretical antecedents of uric acid, whether meat or milk or sugar. With the observance of this simple and wholesome dietetic rule must go attention to free elimination by all the excretory channels and the insurance of sufficient exercise and enjoyment of fresh air. If we wish to impress this consideration on our own minds and give effect to it in our practice let us call to mind for a moment the number of cases that I have submitted to you of atheroma of the aorta in stout, matronly women of sedentary habits—in whom, indeed, this kind of degeneration is quite as common as in men.

I have already said so much on the subject of cardiac strain that it is unnecessary and would be uninteresting to return to the question of the prevention of it. We have seen how often it occurs in the middle-aged or old subject by ill-considered attempts at athleticism. Moderation and due respect for age are the true guides to the useful enjoyment of exercise after 40 years of age. As for the evil effects of nervous influences on the circulation, in addition to anxiety, care, misfortune, and grief, which are usually beyond our control, nervous strain, as distinguished from simple hard intellectual work, often must be relaxed if cardio-vascular damage is to be prevented. I refer to the cases of persons in positions of great responsibility, with heavy, complex, prolonged duties, which they fail to overtake without exhaustion consequent on high pressure and excitement.

I would not have dwelt so long upon the measures calculated to prevent degeneration of the heart were it not that they have to be employed with equal strictness and perseverance in the treatment of cardio-vascular disease when it is already established and our assistance is sought with anxiety. The etiological indications have still to be respected faithfully; on this I need not dwell. The next question is, What can be done for the pathological changes wrought on the arteries and the valves and walls of the heart? In syphilitic lesions we do not hesitate to say that iodide of potassium should be given freely; it is a specific remedy of great value. Can the atheromatous process be influenced with equal or with any success? It depends on toxæmia and anæmia: the obvious indication is to purify and enrich the blood. This, at least in respect of gout, glycosuria, and corpulence, as we have just seen, must be effected by a thorough reform in every department of personal hygiene. Arsenic and moderate doses of iodides, combined with an excess of alkalies, are calculated to promote the same end. Dr. Mott has shown that atheroma, whether of valves or of vessels, can be traced in many instances to disease of the vasa cordis and vasa vasorum. This carries us a step forward in our quest for indications, but the practical conclusion remains that the healthy nutrition of the smaller arteries has to be restored by attention to the blood and the use of specific remedies.

So much for valvular and vascular lesions. There remains to be discussed the fulfilment of the greater indication for treatment, the one which directs and governs the employment of the most important and successful of all the measures comprised in cardiac therapeutics. This is the establishment and maintenance of compensation. The nutrition and activity of the myocardium can be increased and sustained by means of specific cardiac stimulants and tonics, such as strychnine, ammonia, and the digitalis group of drugs, with hæmatinics, stomachics, and laxatives to insure an abundant supply of wholesome blood, by the control of nervous influences—one of the conditions of healthy nutrition—and by the employment of the non-medical measures now so extensively used to increase the vigour and benefit the metabolism of the cardiac walls, particularly active and passive exercises and baths. Unfortunately, the time left at my disposal in this concluding lecture is not sufficient to justify me in entering into detail on this most interesting subject.

I have now sketched very broadly the rational treatment of these disorders and diseases as far as the object of it is to prevent the occurrence or the extension of them and to promote compensation of the disabilities which they produce. It remains for me to notice, also very briefly, the management of cardio-vascular degenerations when the heart fails or when it appears to fail and distress and danger demand more direct and immediate attention. I have said "when the heart *appears* to fail" of set purpose. I am anxious to direct your attention, if it be but for a moment, to the fact that in many instances where præcordial oppression, pain, palpitation, and faintness, with frequent small, irregular pulse, are significant of serious disturbance of the action of the heart there is no failure of the myocardium in the proper sense of the term, but only embarrassment of a temporary character. Do not conclude from this that I regard the disturbance of the heart as of little account. I have called it serious, for indeed the patient may perish of it. What I wish to maintain is that in cardiac degeneration of any kind, in chronic cardiac dilatation, and in the enlarged heart of Bright's disease and of emphysema, just as in ordinary valvular disease, attacks of distress, alarming both to patient and medical man, often occur which call for nothing more in the way of treatment than attention to some intercurrent influence—an indigestible meal, loaded bowels, a nervous shock, a thoughtless effort, a passing hardship or nervous strain. Digitalis and its allies, strychnine, alcohol, nitrites, iodides, and the rest, are out of place in such an event. Complete rest in bed, a carminative draught, calomel and saline purgatives, spare and highly digestible diet, reassurrance, and a little time are quite sufficient means of treatment.

When true failure occurs, manifested by the familiar phenomena of residual dilatation of the heart, mechanical congestion, and dropsy, a different set of measures are demanded. Now is the time to attend with expedition, energy, and completeness to the fulfilment of the three great therapeutical indications for the treatment of cardiac failure: to reduce the peripheral resistance, to increase the vigour of ventricular contraction and rehabilitate hypertrophy, and to remove arrears of work in the form of residual blood in the cardiac chambers, mechanical congestion of the veins and viscera, and dropsy of the integuments and serous sacs. Bodily rest, a light solid diet and a definite allowance of alcohol if required, active purgation with mercurials, salines, and jalap, and the exhibition of sufficiently large doses of digitalis or one of its congeners, in combination with saline and other diuretics,—these are the means calculated to attain the desired objects. You will not expect me to enter into the many details of the management of cardiac failure. It is not different in any important respect in the man of middle or advanced age with cardiac degeneration from what it is in an ordinary case of chronic valvular disease. Only on a few points do I desire to dwell. First, that we must not be afraid to purge these patients if necessary every morning. Secondly, that when the appetite flags and flatulence occurs, instead of slops a blue pill or dose of calomel should be given and light solids persevered with. Thirdly, that nocturnal restlessness and sleeplessness are to be met unhesitatingly with permission to spend the night in an easy chair by the bedside. Fourthly, that, according to my experience, acupuncture and drainage succeed perfectly in these senile cases with dropsy, as much as 10 pints or more of serum escaping in the course of 24 hours, to the complete and often lasting relief of the circulation.

THE NEED OF MORTUARIES.—An inquest was held at Chard on March 20th upon the body of a newly-born infant. Dr. T. S. Balfour complained that there was no public mortuary in Chard and he said that he had been obliged to conduct the post-mortem examination in the same room in which the mother lay and almost within view of her. The jury concurred with Dr. Balfour and at their request the coroner was desired to communicate with the Chard Town Council on the matter.

CHELTENHAM GENERAL HOSPITAL AND DIS-
PENSARY.—The annual oma for an indefinite leng [illegible] to this
institution was held on c weakness and disc [illegible] subscribers to this
Colonel Croker-King. bosed rapid [illegible] March 20th under the presidency of
in-patients had been a ng depressi The medical report stated that 871
1899 There had been thrombosis [illegible] as compared with 804 during
8606 in the previous is the result [illegible] out-patients treated as against
patient was £4 18s. that sudder [illegible] The average cost of each in-
the total income am om the lesio The financial statement showed that
balance of the institu r is the evid [illegible] amounted to £4911 and that the deficit
King was re-elected pr [illegible] was now £2013. Colonel Croker-

SCLEROTIC HYPERPLASIA OF THE PHARYNX AND NASO-PHARYNX.

BY A. BROWN KELLY, B.Sc., M.B., C.M. GLASG.,
SURGEON FOR DISEASES OF THE THROAT, NOSE, AND EAR, VICTORIA INFIRMARY, GLASGOW.

THE case upon which this paper is based is unique in my experience and in that of others, if one may judge from the unsuccessful result of an extensive literary search for references to a similar affection. I therefore believe myself justified in regarding the condition as a hitherto undescribed pathological entity which may not inappropriately be termed "sclerotic hyperplasia of the pharynx."

The patient was brought to me in August, 1899, by his medical adviser, Dr. R. T. Halliday, on account of enlargement of the uvula. He was then 34 years of age and was engaged in a shipbuilding yard. For about eight years he had been subject to slight attacks of sore-throat which had caused, however, no special inconvenience. Three years before I first saw him he began to feel something in the pharynx which he wished to expel; this sensation had gradually increased. Latterly choking fits had been excited by the "something" coming forward on the tongue or passing too far back, as was apt to occur while he was being shaved; he obtained relief in the one instance by pushing the offending body back with his finger, in the other by throwing forward his head. In either case if he did not at once succeed in getting it into its normal position he became panic-stricken and fell to the ground writhing. While in this state he lost control of himself and being a powerful man he was capable of doing great harm. He had, therefore, to avoid being in a crowd, and the barber and others had to be warned to stand clear of him at once should a choking fit set in. In addition, nasal respiration had been partially obstructed for a year, so that he was much troubled at night by the throat becoming dry. The patient was a tall, strong Highlandman who had had no serious illness and no venereal disease. His father and mother both lived to about the age of 70 years and left a family of 12 children, all of whom grew up to be adults.

On examination the pharynx presented a very striking appearance. The uvula was much larger than any I had ever seen and hung like a curtain, concealing the posterior pharyngeal wall. Its length was over one and a quarter inches, its width at the base was one inch, and in thickness it was also greatly increased. The shape and surface were in no way abnormal. The colour, however, was pale and the consistence was fibrous, so that the whole formed a firm unyielding mass.

On bringing the uvula forward on the dorsum of the tongue the posterior wall of the pharynx was found to present a peculiar aspect. A narrow tract of apparently normal tissue ran down the middle of the posterior wall. On each side of this, extending outwards to the lateral wall and incorporating with it part of the right, and the whole of the left, posterior faucial pillar, was a broad prominent band which was thicker in its outer part. These bands passed upwards into the naso-pharynx and downwards to the upper end of the œsophagus. Their consistence was that of muscle and they could be pushed *en masse* towards the middle line. Their colour was a uniform grey and their surface was perfectly smooth. Fig. 1 shows the pharyngeal aspect after uvulotomy. Examination of the naso-pharynx, which was possible only after uvulotomy, revealed marked changes (Fig. 2). The lumen of the cavity was reduced so as barely to admit a forefinger; this was the more striking in view of the patient's height (six feet two inches) and large build. The diminution in the space between the soft palate and postero-superior wall of the naso-pharynx was due partly to the continuation upwards over the latter of the bands above described and partly to thickening of the soft palate. The thickening on the roof, unlike adenoid vegetations, was least in the middle and most marked at the sides. Only a small portion of the septum and middle turbinates could be seen; the choanal arches and Eustachian orifices were concealed. The thickenings in the naso-pharynx, like those in the pharynx, were smooth, grey, and firm. By means of the laryngeal mirror the bands on the posterior wall of the pharynx were seen to pass downwards and to overhang the arytenoids, the sides of the epiglottis being in contact with the bands.

FIG. 1.

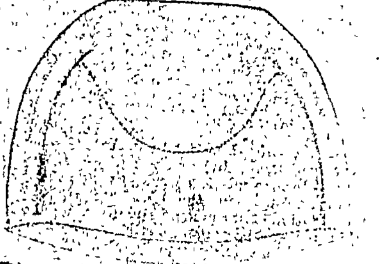
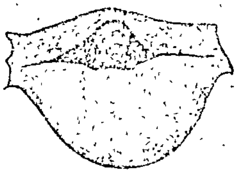
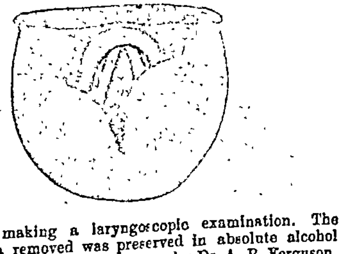


FIG. 2.



At a subsequent visit, in August, 1899, the greater part of the uvula was removed by means of the galvano-cautery snare without any untoward result. Since then the patient has experienced no discomfort and has considered himself cured. During the interval that has elapsed I have failed—except on the occasion noted below—to detect any change in the conditions described, and Fig. 1 and Fig. 2, which were made shortly after he came under my observation, illustrate the appearances at the present time. The occasion of the exception referred to was in October, 1900. After undue exposure he contracted a sore-throat which was more severe than any he had ever experienced. I saw him on the sixth day when the pain, which was confined to the left side, had begun to subside. There was then great swelling of the left band, especially about the level of the epiglottis; its surface was smooth and pale. Three weeks later the œdema had diminished considerably, so that a view of the larynx was obtainable; it was then found that the movement of the left arytenoid during phonation produced a clicking sound owing to its coming into contact with the overhanging tissues. Although five months have elapsed since this acute attack the left band continues rather thicker than the right and the clicking sound is still heard. Fig. 3 shows the appearances now observed on making a laryngoscopic examination. The piece of uvula removed was preserved in absolute alcohol and the report on its minute structure by Dr. A. R Ferguson, senior assistant to the Professor of Pathology in the University of Glasgow, follows:—

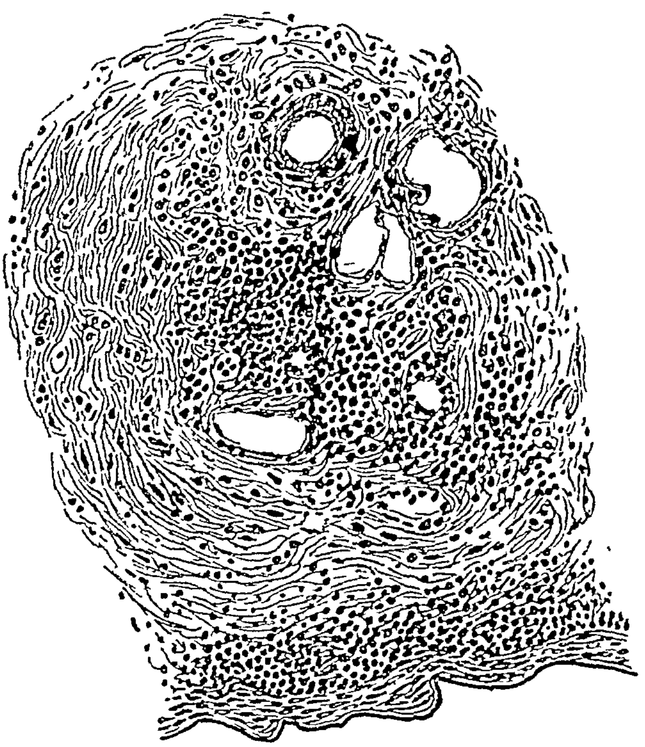
FIG. 3.



> The piece of uvula submitted was incised longitudinally and paraffin sections were prepared from each portion. The section represents the entire cut surface so obtained.
>
> *Low power.*—Almost the entire uvula is seen to consist of dense connective tissue of sparsely cellular character and fibrillated in appearance. This is disposed in denser whorls around the vessels, especially the arteries. Immediately surrounding the majority of the

vessels are dense areas of leucocyte infiltration. An irregularly distributed leucocyte infiltration is seen also running beneath the epithelial covering of the uvula. This latter is much compressed in appearance, the corneal layer especially being increased in thickness. The Malpighian layer shows no papilliform processes in any part

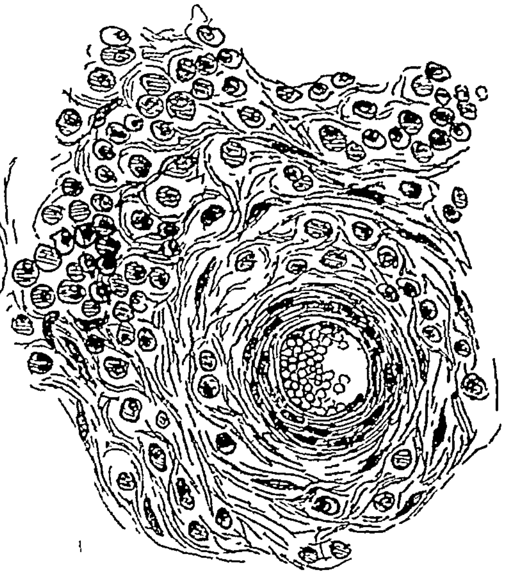
FIG. 4



(Fig 4) Occurring somewhat sparsely throughout the tissue are small groups of adipose vesicles, surrounded and in many cases diminished in size and separated by the dense connective tissue. Mucous gland tissue is abundantly present in the central portion of the uvula. The glandular tissue proper does not seem to have suffered to the same extent as the other portions in the prevailing fibrosis The interstitial tissue of the glands, however, is densely infiltrated with leucocytes which are disposed in irregular areas In the more central parts of the uvula the matrix of the connective tissue is more fibrous than at the periphery and the corpuscles correspondingly fewer in number. The vessels are small but comparatively numerous throughout; they are, without exception, surrounded by an irregular zone of leucocyte infiltration. A few striped muscle fibres, much interrupted and in great part completely isolated, are seen traversing that part of the tissue in which the glandular elements lie.

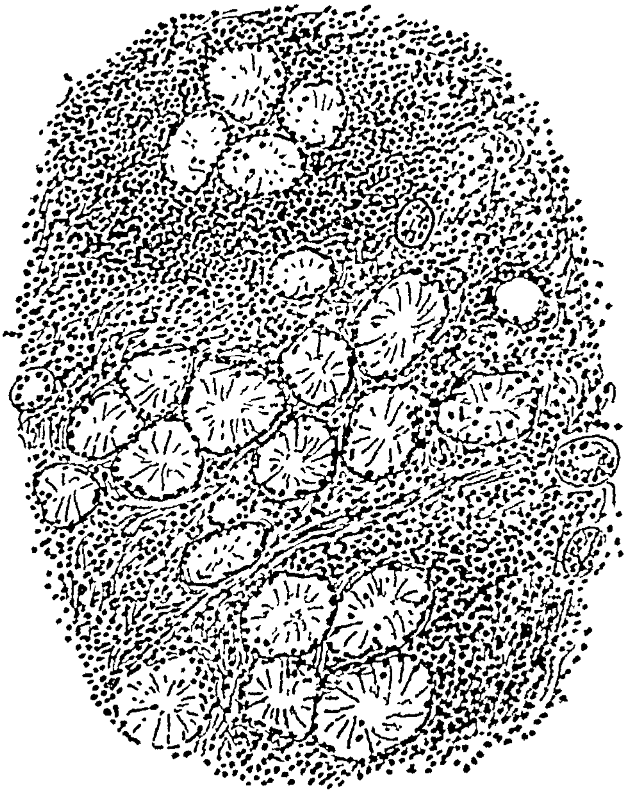
High power.—The epithelial cells of the surface are much altered by compression, having undergone a change comparable with that in the keratinous layer of the epidermis. The deeper layer shows no papillary processes, though the cells are well formed, their columnar character

FIG. 5.



being pretty well preserved. The tissue beneath this layer is a well-formed connective tissue which is finely fibrillated, the fibrillæ forming a very fine-meshed reticulum. The small vessels in this zone are surrounded by leucocytes. These latter are of the small mononuclear type mainly, though many polymorphonuclear leucocytes are also seen. The other cells present are connective tissue corpuscles, many of which are observed in process of division. In this zone of the connective tissue many of the corpuscles have an irregular form with delicate processes; in the main, however, they are of the spindle-shaped type met with in young developing connective tissue (Fig. 5). The fibrillar reticulum can still be distinguished in the midst of these cellular areas. The degree of leucocyte infiltration is more pronounced in the interstitial tissue of the mucous glands than elsewhere. The muciğenous cells show no alteration in appearance, the majority being collapsed with very indefinite outline (Fig. 6).

FIG. 6.



A small portion of the affected tissue was removed from the patient under conditions which precluded its contamination with micro-organisms from any source, and this, after having been cut into small pieces with sterilised scissors, was introduced into a series of sloped glycerine agar tubes. These showed in the course of the second 24 hours of incubation at 37° C. a few small colonies resembling in general appearance, but somewhat larger than, those of streptococcus pyogenes. Film preparations from these colonies showed a short, beaded bacillus which, in forms staining deeply at the extremities, resembled a small diplococcus. Nothing in the least suggestive of bacillus rhinoscleromæ was obtained in the cultures.

Microscopical sections of the uvula were stained by various methods for the demonstration of organisms—e.g., carbol—thionine blue, Loeffler's alkaline methylene blue, Kühne's blue, Gram's method. These, carefully searched, showed no bacillus to be present in the depths of the affected tissue in any part. A few organisms, however, resembling that briefly described above as having been obtained from cultures, were seen between and immediately beneath the deeper cells of the Malpighian layer of the mucous membrane and were only found in this situation. These, it is accordingly inferred, represent but accidental invasions from the surface. The whole condition may thus be briefly summarised, from the point of view of its morbid histology, as a chronic hyperplasia of the interstitial tissue of the parts involved, of apparently progressive character, with no tendency towards degeneration, and (so far as can be demonstrated) unassociated with the presence of any specific micro-organism.

This case presents three striking features—namely, the greatly enlarged uvula, the thick band descending in each half of the posterior wall of the pharynx, and the thickening of the roof and floor of the naso-pharynx leading to a marked diminution of its lumen. In all the regions affected the morbid process is apparently the same, consisting in diffuse uniform thickening, which histologically proves to be a marked interstitial hyperplasia. The development of the
disease has been very slo [illegible]
In endeavouring to d ma for an indefinite length [illegible]
have come under co weakness and discon [illegible]
1. *Rhinoscleroma.*- bosed rapidly, appa [illegible]
region most frequent ng depressio n or [illegible]
resemble that prese thrombosis of d [illegible]
however, the reduct is the result. Th [illegible]
due to cicatricial c that sudden deat [illegible]
of the tissues. Fu om the lesion of [illegible]
the appearances of t is the evide nce [illegible]

in this case could be found. The fact, also, that rhinoscleroma has been observed in this country only in persons who have come from districts in which the disease is endemic renders it highly improbable that my patient's ailment is of this nature. Lastly, the absence of the specific bacillus and of Mikulicz's cells almost conclusively disproves rhinoscleroma.

2. *Tertiary syphilis*, owing to the various aspects it may assume in the throat, naturally suggests itself. Inquiry as to the patient's previous health yields no indication of his ever having contracted venereal disease; besides, this morbid process differs from tertiary syphilis in its perfect symmetry, in the absence of any tendency to ulceration, and in its being uninfluenced by iodide of potassium.

3. *Hereditary syphilis.*—Recently I have had under treatment a boy, aged seven years, the subject of late hereditary syphilis. In addition to laryngeal manifestations his palate and uvula presented a smooth uniform thickening which, although less marked, resembled that of the case under consideration. The greater part of the uvula was removed and Dr. Ferguson found, on examining it microscopically, that the enlargement was due to a diffuse fibroid hyperplasia which in its main features closely resembled the histological appearances presented in sections from the case the subject of this paper.

In consequence of the similarity of the histological appearances in the two uvulas it has been necessary to consider—(1) whether the man is the subject of late hereditary syphilis, and (2) whether the sclerotic hyperplasia in the child is independent of syphilis.

I have failed to discover any fact in support of the first question. The patient's parents spent their married life in the Highlands and had a family of 12 children, all of whom reached adult life, the physique of every member being above the average. The patient is the second youngest child and presents none of the stigmata of the diathesis. Owing to the want of corroborative evidence in the personal and family history of the patient, and because of the general dissimilarity of his pharyngeal manifestations to those observed in hereditary syphilis, I believe that this disease may be left out of account as an etiological factor.

The second question, as to whether the involvement of the pharynx in the boy is independent of syphilis, must be answered in the negative. That he suffered from hereditary syphilis when an infant is beyond doubt. It is also evident that the affection of his pharynx is of the same nature as that of his larynx and that the latter resembles the diffuse hyperplastic infiltration of the larynx which has been described in a few cases of hereditary syphilis. On these grounds the hyperplasia of the boy's uvula may be attributed to the diathesis.

While I have been unable to find a disease of which the sclerotic hyperplasia in the man is a manifestion, I would point out that an analogous condition probably exists in subglottic hypertrophic laryngitis. This affection is usually characterised by the presence of pinkish, smooth, firm, symmetrical folds beneath the vocal cords, which develop slowly, apparently in consequence of recurrent inflammatory attacks, during which they become more or less swollen. If we now turn to the case under discussion we find folds of thickened tissue in the pharynx presenting characters similar to those just mentioned; we get a clinical history of his having been subject to sore-throat for years, and of permanent symptoms due to hypertrophic changes having set in only at a comparatively recent date; examination during an inflammatory attack revealed marked swelling of part of the affected region; and, lastly, Dr. Ferguson informs me that A. Sokolowski's[1] account—which is probably the most detailed and thorough—of the histology of subglottic hypertrophic laryngitis might stand for that of the removed portion of the enlarged uvula, the sole difference being that in our case the deeper layer of the epithelium is not thrown into papillæ, but presents practically an even continuous surface, the columnar character of the deepest cells of the rete Malpighii, however, being maintained.

Considerable discussion has taken place as to the nature of lottic hypertrophic laryngitis. In most text-books the ntioned are tuberculosis, syphilis, and rhino- he last being probably the commonest. Of 100 recently reported by A. Baurowicz[2] 34 were affected with subglottic hypertrophic laryngitis. If the frequency of subglottic hypertrophic laryngitis in scleroma be coupled with its great rarity apart from this disease it can be understood how certain observers who live where rhinoscleroma is prevalent—e.g., P. Pieniazek[3] and Baurowicz of Cracow—and who consequently see subglottic hypertrophic laryngitis comparatively often, maintain that it is *always* a manifestation of scleroma. On the other hand, Sokolowski of Warsaw, who has also had an extensive experience of rhinoscleroma, denies this, and proves incontestably, as it seems to me, that subglottic hypertrophic laryngitis may develop independently of scleroma, tuberculosis, and syphilis; he thinks that the morbid process is of a specific nature, the etiological factor being as yet unknown, but he suggests that hereditary syphilis may play a part. A. Kuttner[4] reports a case of subglottic hypertrophic laryngitis in which there were no grounds for suspecting the presence of any of the infective diseases mentioned; he maintains, therefore, that this laryngeal condition may appear as an affection *sui generis* which he proposes to term the genuine form of chorditis vocalis inferior hypertrophica. F. H. Bosworth[5] also states that there can be no question of a simple idiopathic inflammatory process in the subglottic region giving rise to marked hypertrophy, but he thinks that in most instances a diathetic condition is present. There are thus good reasons for according to subglottic hypertrophic laryngitis independent rank amongst the diseases of the larynx.

The facts brought forward in this paper, if correctly interpreted, prove (1) that the pharynx and naso-pharynx may be the seat of a sclerotic hyperplasia unconnected with syphilis, rhinoscleroma, or other known infective disease; (2) that a similar morbid process may manifest itself beneath the vocal cords as subglottic hypertrophic laryngitis; and (3) that in the hyperplastic variety of hereditary syphilis the histological appearances closely resemble those of the above described sclerotic hyperplasia.

Glasgow.

ON THE EXISTENCE OF IMMUNITY AFTER ENTERIC FEVER.

BY BURTON A. NICOL, M.R.C.S. ENG., L.R.C.P. LOND.,
CIVIL SURGEON ATTACHED TO THE ROYAL ARMY MEDICAL CORPS, SOUTH AFRICAN FIELD FORCE; LATE HOUSE PHYSICIAN, CHARING-CROSS HOSPITAL.

THERE seems to be a very general impression that an attack of enteric fever confers some degree of immunity upon the patient against further attacks of the same disease. The number of patients whom I found suffering from enteric fever in South Africa who had previously contracted the disease in India or elsewhere has made me feel that this conclusion is not based upon very good evidence.

A nursing sister of my acquaintance had two attacks of enteric fever in England during her nursing career, and she contracted the disease for the third time whilst doing duty with the forces in South Africa. An officer had suffered from enteric fever in India, and he also contracted malaria in that country. During the campaign he again became a victim and his illness was followed by three distinct relapses. These relapses did not occur in the usual way during the week or so after the temperature became normal, but came on when the patient was on an improved diet and beginning to get about—i.e., from three to five weeks after the temperature had fallen. This was, of course, altogether an unusual case and may have been complicated by his malarial diathesis. The following two cases are interesting as showing that the supposed immunity produced by very severe attacks of enteric fever was not sufficient to protect the patients for more than six months from a recurrence of their illnesses.

CASE 1.—A civil surgeon, aged 30 years, previously in good health, was admitted to No. 7 General Hospital at Estcourt in May, 1900, with symptoms of enteric fever. The attack was a most virulent one, the patient suffering from

---

zur Pathologie und Therapie der chronischen hyper- hlkopfentzündung, Archiv für Laryngologie, Band ii., iv., S 239

auf Grund der Beobachtung von 100 Fällen, Archiv Band x., S. 396; Zur Aetiologie der sogenannten Chorditis vocalis inferior hypertrophica, Archiv für Laryngologie, Band vii., S. 349.

[3] Heymann's Handbuch der Laryngologie, Band i., S. 1305.

[4] Chorditis vocalis inferior hypertrophica, Archiv für Laryngologie, Band v., S. 275.

[5] A Treatise on Diseases of the Nose and Throat, vol. ii., p. 523.

very active delirium during the whole time that the temperature was raised. He had eight distinct hæmorrhages within a few days and the collapse produced by loss of blood was so extreme that he was not expected to recover. The temperature for about a week was between 103·5° and 105°F. He rallied, the temperature fell to normal on the eighteenth day, and from that time he made a good convalescence. He was sent home to England and after spending a month at home he returned to duty. His blood was examined during the illness for the Widal reaction; the clumping and loss of motility of the bacilli were instantaneous. In November, 1900, whilst doing duty at No. 14 General Hospital at Newcastle, this patient again went to bed with every symptom of enteric fever. He had headache, diarrhœa, and during the first week considerable delirium. The temperature ranged for some days between 103° and 104·5° and did not become for 30 days. A very typical roseolar eruption appeared over the whole front of the chest and the abdomen, the back, and the extremities, thus covering every part of the body with the exception of the head and neck. Although the illness was rather a long one it was not regarded as being unusually severe in type and the patient again made an uninterrupted recovery. The Widal reaction was again tried, this time about 10 weeks after the temperature fell. The result was a positive reaction, clumping and loss of motility taking place in about 20 minutes with the usual dilution.

CASE 2.—A private in the 2nd Middlesex Regiment, aged 24 years, was sent from a field hospital to No. 7 General Hospital at Estcourt in April, 1900. On admission he had a temperature ranging from 102° to 103·5° F., was typhoidal in appearance, and had a slight abdominal rash, abdominal fulness, and diarrhœa. The type of enteric fever was considered to be quite of average severity. His temperature fell to normal on the twenty-second day, but after remaining normal for four days it again rose, finally falling on the thirty-fourth day of the illness. Beyond this relapse there were no complications. He made a good recovery and was discharged to the convalescent depôt. This patient ought to have gone to England, but some mistake was made, and after remaining at the convalescent depôt for a month or two he was with others sent back to his regiment at the front. In September, 1900, he again had symptoms of enteric fever and was sent into hospital at Newcastle. On this occasion the attack was quite a mild one, and there was no relapse or any sort of complication. The temperature never went beyond 103° and fell to normal on the nineteenth day. He made an uninterrupted convalescence and on this occasion was sent to England. The Widal reaction was not attempted with this patient in either illness.

In these two cases the attack may have been due to an auto-infection. It is quite conceivable that the bacillus may remain within the body quiescent for many months and only become active at some time when, owing to fatigue, exposure, or other causes the bodily resistance to disease is temporarily lowered. If the natural immunity acquired by a very severe attack of the disease is of any value, however, the patient ought to be protected against the disease whether the cause comes from within or from without. One would also expect to find the degree of immunity varying directly with the intensity of the primary attack.

It is acknowledged by most observers that immunity acquired in this manner, if it exists, is much less pronounced and of more doubtful duration than that produced by other febrile disorders, such as small-pox, scarlet fever, &c. The question of its existence is of considerable importance at the present time as the possibility of procuring an artificial immunity by the present method of inoculation is at least doubtful, if we are not satisfied that an attack of the disease itself protects its victim against further onsets.

The clinical evidence upon the point is necessarily weak. Under ordinary circumstances the cause of the disease is only very occasionally present, and when it is present the predisposing circumstances favouring its development may be entirely absent. The large majority of the population at home, therefore, escape the disease altogether, and it is consequently not surprising if very few of those who have had the disease once contract it a second time. The present campaign will not throw any light upon the problem, as no systematic inquiry has been made as to whether the patient has or has not suffered from previous attacks of enteric fever. Most medical officers, however, have gained the impression that second attacks of enteric fever are fairly frequent, and even third attacks are not unknown. The peculiar frequency of relapses make the consideration of possible immunity much more complex. If the disease produces in its subject changes in the blood-serum antagonistic to the bacilli or their products one would not expect to find relapse so common a phenomenon in the clinical picture.

The experimental or laboratory evidence of an immunity existing consists mainly of the fact that the blood-serum of a patient who is suffering from enteric fever or who has had the disease recently has the power, even when considerably diluted, of interfering with the motility of Eberth's bacillus, and producing that characteristic clumping or agglutination of the bacilli which is known as the Widal reaction. This reaction is a very variable one. The same result has been obtained with the blood-serum of patients suffering from influenza, pneumonia, acute miliary tuberculosis, &c., and the suggestion that these patients at some time in their previous history have suffered from an undetected or abortive attack of enteric fever does not seem altogether to meet these cases. The reaction is also obtained with the serum from patients suffering from bacillus coli infection. The serum of the normal subject if not sufficiently diluted is also not without its effect upon Eberth's bacillus and there is no constant ratio at any time between the intensity of the disease and the intensity of the reaction. Various observers have recorded cases presenting clinically all the appearances of enteric fever but in which the blood-serum gave a negative reaction.

The Widal test is doubtless of great value from a diagnostic point of view, but the very striking fact that serum from patients who have been inoculated produces loss of motility and clumping of bacilli is certainly no guarantee that an artificial immunity has been produced in these cases. A very large number of the cases of enteric fever occurred in young soldiers soon after their arrival in South Africa and amongst these were many who had been inoculated on board ship during the voyage out and in whom the protection being so recent ought to have been particularly good. The very first case admitted into No. 7 General Hospital at Estcourt was one of our own orderlies suffering from enteric fever; he had been inoculated some three weeks previously during the voyage out.

It seems to me that at present there is no proof existing of the presence of an immunity after an attack of enteric fever. Immunity varies so much in different diseases and in different individuals: erysipelas leaves behind it apparently a predisposition to further attacks; diphtheria and pneumonia as far as we know give no protection; whilst an attack of one of the exanthemata usually protects its subjects very effectually. What place enteric fever is to take in this respect has still to be determined. My recent clinical experiences have led me to doubt the existence of any immunity in many cases. A large number of men in this campaign have, however, quite escaped the onslaughts of enteric fever and it is reasonable to think that all must frequently have been exposed to the risks of infection. If we can discover the reason for their resistance to the disease we may then hope to discover some method of general protection. Statistics may show that inoculation is a step in the right direction, but meanwhile we should not forget that the teachings of sanitary science to-day point out clearly many paths along which efforts at prevention can be successfully made.

THE PATHOLOGY AND TREATMENT OF RHEUMATOID ARTHRITIS.

BY P. W. LATHAM, M.D. CANTAB.,

FELLOW AND LATE SENIOR CENSOR OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON; CONSULTING PHYSICIAN TO ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

THE obscurity which envelopes the pathology of rheumatoid arthritis and the doubts which are entertained as to the effects resulting from the administration of drugs induce me to invite further attention both to the pathology and the treatment of this disease.

Notwithstanding the fact that the dystrophic or neural theory is said to be unsupported hitherto by any positive evidence of *morbid change in the nerve cells of the* spinal cord or in the nerves which supply the joints, I can find no evidence in post-mortem records that either the spinal cord or the sympathetic ganglia have been so carefully examined by modern methods and appliances as to justify pathologists in asserting that in rheumatoid arthritis these parts are healthy and free from organic change. Until Heine[1] formulated his views of the nature of the lesions accompanying infantile paralysis, based solely on an analysis of the symptoms, the lesions in the spinal cord in this disorder were overlooked; they were, however, readily recognised afterwards in a certain number of necropsies when attention had been called to the matter. I venture to think that the clinical symptoms also in rheumatoid arthritis furnish undoubted evidence of pathological change in the nervous centres, the exact nature of which can only be determined by further microscopical investigation. Furthermore, I shall endeavour to show that this view is supported by the results of treatment directed specially to the nervous centres.

Leaving out of consideration for the present the causes which induce changes in the joints themselves I would point to the distinctly neurotic character of the antecedents and accompaniments of the arthritic trouble. As antecedents there are the neuralgic pains, so often wrongly termed "rheumatic," affecting one or more of the limbs, the feeling of weariness or of numbness or tingling, symptoms to which Dr. Spender has called attention, sometimes affecting only one nerve or the whole of one limb, sometimes being localised along the spine or across the loins. According to Trousseau and Remak in women the disease is often preceded by megrim. Not unfrequently worry, anxiety, or shock appear to have been the factor originating the disease. As an accompaniment of the arthritic mischief we see the marked atrophy of the muscles which in many cases supervenes and is developed much more quickly than can be attributed to mere disuse. In fact, in some cases, as Dr. Ord has pointed out, "the muscular wasting precedes the osteo-arthritis." Now it seems incredible that this muscular atrophy, if it has lasted for any time, whether it be primary or secondary, can exist unassociated with degenerative changes in the spinal cord, and it is reasonable to assume that such changes are similar to those associated with infantile paralysis or with chronic anterior polio-myelitis, in which we have material lesions of the cord involving the antero-lateral columns, marked proliferation of the connective tissue elements, with swelling and subsequent pressure upon and atrophy of the anterior roots of the nerves supplying the affected muscles, with more or less complete disappearance of the multipolar cells, changes which in many cases can only be discovered when carefully sought with the aid of the microscope.

"Pathological facts appear to show that the trophic nerves of the bones and joints are found in the mixed nerve trunk and that they issue along with the motor fibres from the anterior cornua where they are, like the muscular trophic fibres, connected with a group of large caudate cells. It is impossible to say at present in what way these trophic fibres and cells are connected with the brain, but some connexion doubtless exists."[2] With regard to the nature of the injury which will give rise to active muscular atrophy, 'it seems now generally admitted that both irritative and destroying lesions of the ganglion cells of the anterior horns of the spinal cord, and their homologues in the medulla oblongata, pons, and crura, or of the efferent fibres which unite these cells with the periphery may give rise to active atrophy of muscle. But whether the same kind of cell exercises both motor and trophic functions, or there exist separate cells for each function, is as yet undetermined."[3] In infantile paralysis, however, the changes in the bones and in the joints are of a different character to those of rheumatoid arthritis, nevertheless clinical experience has taught us that injuries to the spinal cord or even to the nerves of a limb will set up arthritic changes which cannot readily be distinguished from those seen in the earlier stages of rheumatoid arthritis. Dr. Weir Mitchell, Dr. Moorhouse, and Dr. Keen were the first to call attention to the effect of nerve injuries on the nutrition of the joints. The symptom occurs within a few days after the injury to the nerve. "It consists essentially in a painful swelling of the joints which may attack any or all of the articulations of a member. It is distinct from the early swelling due to the inflammation about the wound itself, although it may be masked by it for a time; nor is it merely a part of the general œdema which is a common consequence of wounds. It is more than these—more important, more persistent. Once fully established, it keeps the joints stiff and sore for weeks or months. When the acute stage has departed the tissues about the articulations become hard, and partial ankylosis results, so that in many cases the only final cause of loss of motion is due to this state of the joints. Of all the agencies which impede movement it is the most difficult to relieve. Were we asked to state in what essential respect these lesions differ from subacute rheumatic disease of the same parts, we should certainly be at some loss to discern a difference."[4] In a subsequent work[5] Dr. Weir Mitchell again refers to the curious arthritic changes which may follow dislocations, ball-wounds, contusions, or even compressions of the nerves. "We may have one articulation—and if only one, a large one—involved, or perhaps all the joints of a finger, or every joint in the hand or of the entire limb may suffer. The swelling is never very great, the redness usually slight, and the tenderness on touch or motion exquisite. This condition of things remains, with little change, during weeks or months and then slowly declines, leaving the joints stiff, enlarged, and somewhat sensitive, especially as to movement. A small proportion of such cases find ready relief, but in many of them the resultant ankylosis proves utterly unconquerable, so that it is vain to break up the adhesions under ether, or to try to restore mobility by manipulation on splints. All alike fail and serve only to add to the essential tortures of the accompanying neuralgia and hyperæsthetic states of skin. Since writing my last paper I have met with some of the former patients who suffered with these troubles, but in no case originally very severe was there any great gain; indeed, in most of them the joints had become every year more stiff and useless. It is then quite clear that injuries of the spine, diseases of this organ and of the brain, and wounds, or any form of lesions of nerves, are capable of developing in the joints inflammatory conditions, usually subacute, and which so precisely resemble rheumatic arthritis in their symptoms and results that no clinical skill can discriminate between the two." The following case is recorded by Sir William Gull[6]:—

[illegible]

the ankles, though there was no obvious want of muscular power or any affection of sensation in the upper extremities. Tongue clean. Pulse 120. No acid perspirations. Urine high coloured, free from deposits, of normal quantity. The nerves of the surface generally were hyperæsthetic to a slight touch but deep pressure gave less inconvenience. The treatment consisted of good nourishment, wine and brandy freely administered, and opium to allay pain and overcome sleeplessness. The pulse gradually acquired more power, and sank to 80 The affection of the joints continued in varying degree through March, April, May, and June. From the beginning of April, there was an improvement in the power over the legs The same treatment was continued throughout, without the use of mercurials, local depletion, or counter irritation. In June the patient was able to walk without assistance. During sleep the hands and feet, wrists and ankles, often become erythematous and swollen. There was occasional formication in the lower extremities. Sleeplessness, from the beginning of the case and throughout, was a troublesome symptom. In July the patient was able to leave the hospital and to resume to some extent his duties as medical practitioner. He was under the care of my colleague, Mr. Cock.

Further we have the arthropathies consecutive on lesions of the nervous centres, cerebral and spinal, which Scott Alison, Brown-Séquard, and Charcot have described, the tumefaction, redness, and pain of the joints closely simulating acute rheumatism or gout. So far back as 1831 Professor J. K. Mitchell[7] reported some cases of a striking character

---

Beobachtung über Lähmungszustände der unteren Extremitäten, u.s.w., Stuttgardt, 1840.

[2] Ross: Diseases of the Nervous System, second edition, vol. i., p. 267.

[3] Loc. cit., vol. i., p. 241.

[4] Gunshot Wounds and other Injuries of Nerves, by Dr. Weir Mitchell, Dr. Moorhouse, and Dr. Keen. Philadelphia: 1864, p. 83.

[5] On Injuries to Nerves. London and Philadelphia, 1872, p. 168.

[6] Guy's Hospital Reports, third series, vol. iv., 1858. Sir William Gull's remarks on Case 27, loc. cit., are of the greatest interest and are highly instructive and suggestive.

[7] On a New Practic [illegible]
Mitchell, M D., Ame [illegible]
vol. viii., p 65. This [illegible]
of so much interest a [illegible]
to the Croonian Lectu [illegible]
matism, Gout, and [illegible]
Physicians of London in 1883.

in which arthritic symptoms supervened upon injury to the spinal cord. These cases were successfully treated by applying from eight to 16 cups, abstracting about as many ounces of blood from the neighbourhood of the cervical or lumbar enlargements, according as the upper or lower extremities were affected, and if the cupping did not afford relief applying blisters to the same regions. The following most interesting case, which came under my observation in Cambridge, illustrates, I think, very well the development of arthritic mischief from irritation of the central nervous system, the irritation being chiefly localised in the medulla oblongata and affecting the vaso-motor centre. It further illustrates the beneficial effects of Professor Mitchell's plan of treatment by cupping and blistering.

J. W., aged 54, a labouring man, was working on a stack in the dusk of early morning on Dec. 24th, 1885, when he fell, dropping about eight feet, on to his left side. He walked home, with pain and difficulty, a distance of over a mile; he went to bed, lay there drowsy and without appetite, very helpless, and only just able slowly to move his limbs. After remaining a week in this condition he was carried into Addenbrooke's Hospital on Dec 31st, 1885, under Mr. G. E Wherry, to whom I am indebted for an opportunity of seeing the patient, as well as for the notes of the case. When admitted he was drowsy and stupid, and answered questions in a dull manner when roused; cutaneous sensation seemed everywhere perfect; movements of the limbs were very slow, difficult, and painful; turning over in bed was a struggling tedious process. The grip of the hands was very feeble, especially the right; no rigors, no sweats; no bladder symptoms Bowels confined. His health had always been good, and he was working daily up to the date of his accident. Jan. 1st, 1886.—Some swelling of the left wrist and fingers, and both ankle-joints, with pain on movement, and tenderness; relieved by an opiate. Heart-sounds normal. Evening temperature, 101·6° F. Jan 2nd.—Marked swelling and redness of the left wrist-joint and of the joints of the first and second fingers, with œdema, and angry red appearance of the back of the wrist Slight swelling also of the right wrist and finger joints It was extremely tender, and looked as if it would suppurate. Beads of sweat on left forehead; a few small herpetic vesicles are seen along the course of the left supra-orbital nerve; tears and secretion excessive in conjunctival sacs of left eye; pulse 80; considerable œdema of both ankles. Patient is drowsy, and sleeps except when roused by pain. No general sweating; urine acid. Bowels open by calomel. Evening temperature 101·4°. Jan. 3rd.—Redness and swelling in left wrist continues, as well as in both ankles; drowsiness and stupor; muco-pus in conjunctival sacs of left eyelids, not in the right. The knees usually drawn up in bed, of which movement he does not seem conscious; he can put them down by an effort. Morning temperature, 100·2°, evening, 101·8°. After consultation with Dr. Latham he was cupped at the root of the neck behind in two places, about two ounces of blood drawn; no relief that night. Evening temperature, 101·8°. Jan. 4th.—He seemed better and in less pain. Morning temperature, 100·2°; evening temperature, 101·6°. Jan 5th.—Less pain and tension in the joints; morning temperature, 99·2°. His manner still stupid and dull. Two cups were applied near the lower cervical vertebræ and two near the lower dorsal vertebræ and about four ounces of blood drawn. He was ordered to take at once five grains of calomel and one grain of opium, and a black draught the following morning if necessary. Evening temperature, 101°. Jan. 6th.—Better. Morning temperature, 100°; wrists and ankles less swollen. Bowels open three times after the calomel. Evening temperature, 101°. Ordered tinct. opii (20 minims) at bedtime. Jan. 7th.—Wrists and ankles better. Complains of pain in right knee, with some tenderness, but there is no swelling. Morning temperature, 100·4°; evening, 100·8°. Ordered four blisters, 1½ × 1½, to four spots along the spine, to be kept open with savine ointment. Opiate to be taken every night Jan. 9th.—The right foot and ankle more painful and swollen. The other joints better. Morning temperature, 101·2°. Ordered a blister, 4 × 3 inches, over the lower dorsal vertebræ Evening temperature, 101·8°. Jan. 10th.—Feels better; has had a good night, has no longer the dull, stupid manner, mind clear, was ordered tinct. opii (10 minims) three times a day; the blister to be kept open with savine ointment. From this time continuous improvement took place. The evening and morning temperatures fell daily until the 19th, when the evening temperature reached the normal point, and the blistered surfaces were allowed to heal. There was some œdema about the affected joints after the redness and pain had passed away, but this entirely disappeared by the 23rd. There was still at this date a little tenderness and thickening about the left wrist. The unilateral sweating of the face was noticed from time to time. Feb. 2nd.—The patient's condition much improved Is sitting up. Has lost all pain, except now and then in left wrist. There is some thickening and stiffness about the joints which were affected, and his grip is still weak, though very much stronger than before

Upon the foregoing data it is not unreasonable to assume that the joint troubles in rheumatoid arthritis are due to spinal congestion or chronic myelitis chiefly affecting the ganglion cells of the anterior horns, but extending also, when the disease is associated with "glossy skin," to the ganglion cells in the posterior horns[8] If this is the case the natural inference would be that, in the earlier stages of the malady, at all events, the treatment should be directed to the abatement of this spinal congestion and that probably this can be most effectively done by cupping or blistering the spine. On these grounds, therefore, this plan of treatment was adopted in the following cases.

CASE 1.—A farm-labourer, aged 19 years, was admitted into Addenbrooke's Hospital on Jan. 8th, 1896. He had always enjoyed good health until September, 1894, when he was suddenly seized with pain in the left chest, which was soon followed by pain in both knees and shoulders, but without any swelling of the joints. He remained in bed for a fortnight and at the end of eight weeks he resumed his work, feeling quite well and with no shortness of breath. He remained quite well until 10 weeks previously to being admitted into the hospital, when, without exposure to cold or any other assignable cause, the right hip became painful. The pain spread to both knees, shoulders, feet, and hands. For the last 10 days all the joints of both hands had been swollen and for a week the ankles also had been swollen. The patient had a dark complexion and a healthy aspect. The skin was hot but not perspiring. There was no rheumatic odour. The tongue was clean and the bowels were regular. In the left axilla there was an enlarged gland of the size of a walnut and another of smaller size in the right axilla. There was a soft systolic murmur at the heart's apex, with an accentuated pulmonary second sound. The wrists, the knees, and the ankles were swollen, distended with fluid, and painful. All the phalangeal joints were tender and swollen. There was pain in the left shoulder and in the left side of the neck which was increased on movement. The patient's temperature on admission and for some 10 weeks varied between 100° F. in the evening and 99° in the morning, and the remedies employed (though without much advantage) were bark, salicylates, colchicum, quinine, and iodide of sodium, cod-liver oil, and arsenic. About the middle of May a normal temperature was reached. Arsenic was prescribed after meals, and iodide of sodium and bark in the intervals between meals. These remedies, with massage, were continued until June 26th, when the patient was discharged. He was able to hobble about, but he had not been greatly benefited. After his discharge his symptoms improved somewhat, so that he was able to walk up and down stairs, but the swelling of the joints remained unchanged. At the end of September he was troubled with increased pain in both hips and shoulders, but with little or none in the hands or knees. He was readmitted into the hospital on Nov. 4th in the following condition. Both wrists and all the joints of both hands were distended with effusion but without any crepitus. There appeared to be some thickening of the lower ends of the bones of the forearm, but very little bony deformity of the phalangeal joints. Both knee-joints were distended with fluid and the extremities of the bones were thickened. The shoulder-, elbow-, and ankle-joints appeared to be normal. There was great muscular atrophy of all the limbs, especially of the calves of the legs. The vertebral joints were stiff but not tender. The hands and feet were constantly moist. During the first 14 days after readmission his temperature ranged between 100° and 98·4°. He was placed on full diet and was treated with arsenic, iodides, bark, and opium, cod-liver oil, hot-air and hot-water baths, massage, &c., with varying effects on the disease, but with no marked benefit until the beginning of April. It was then decided to try the effect of continuous counter-irritation of the spine. A skiagram was taken of the left hand, of which Fig. 1 is a copy, and measurements were taken of the wrists and fingers with the following results. April 6th: right wrist, seven and five-eighths inches; joint between the first and second phalanges of the first finger, three inches; joint between the first and second phalanges of the second finger, three inches. A cast of the left hand was also taken, of which Fig. 2 is a drawing. The left wrist measured eight and a quarter inches. A blister three inches by three inches, which had been painted over with liquor epispasticus, was applied over the seventh cervical spine for 12 hours and the blistered surface was afterwards kept open for a fortnight with a daily dressing of savine ointment and was then allowed to heal. Full diet, cod-liver oil, arsenic, and tincture of bark were prescribed. On April 23rd a blister of similar size was applied over the last dorsal and first lumbar vertebræ and was kept open for a fortnight with savine ointment. The joints felt easier after the application of the blisters, but there was very little diminution in their size for the first four weeks. On May 27th the finger-joints gave the same measurements as on April 6th—viz., three inches. The left wrist now measured only seven and three-quarter inches, being half an inch less than before. The right wrist was also seven and three-quarter inches in circumference, or an eighth of an inch more than before. The limbs were now massaged every other day and the patient had a warm bath

---

[8] Pathological observations render it probable that the ganglion cells of the anterior horns exercise a controlling influence upon the nutrition of the bones and joints, while those of the posterior horns stand in a similar relation to the nutrition of the skin and its appendages.—Ross, loc. cit., vol i, p 825

FIG. 1.

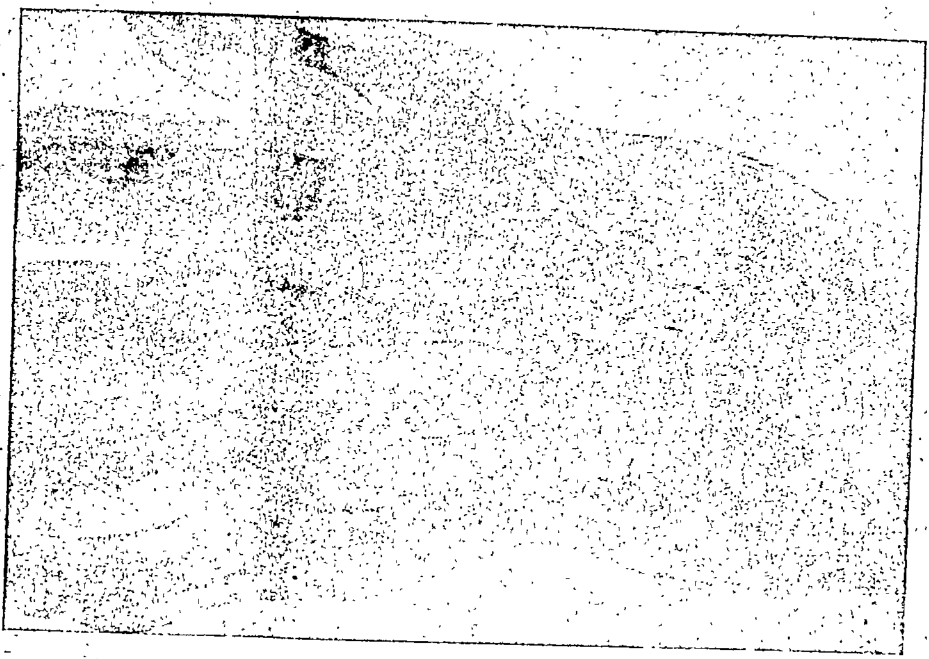


FIG. 2.

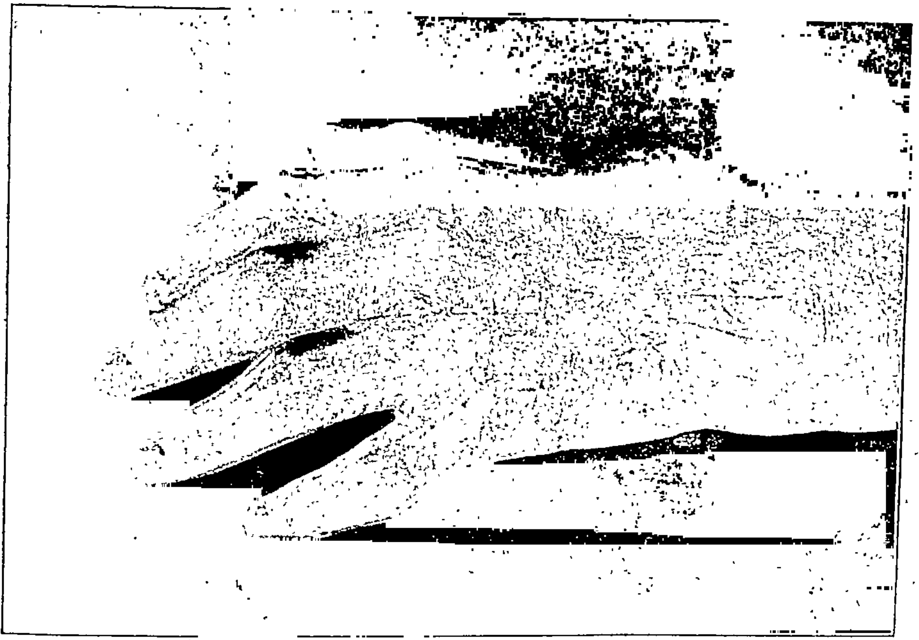


FIG. 3.

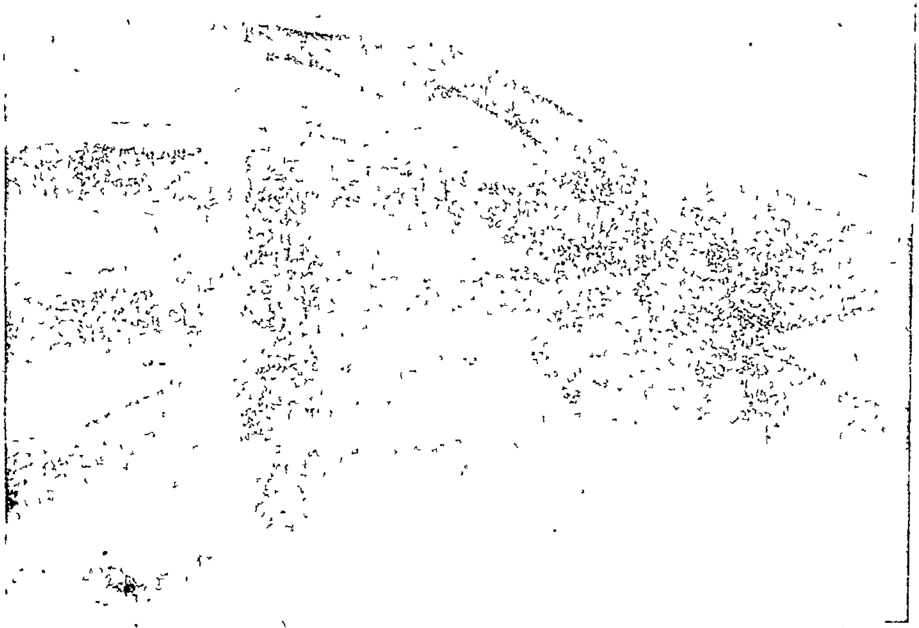
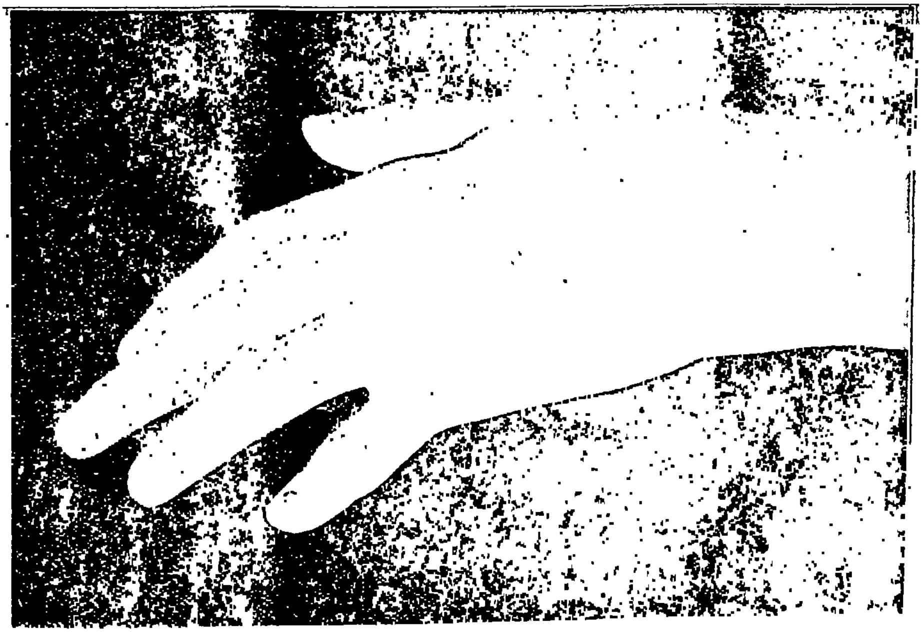


FIG 4



every other evening. Blisters three inches by one and a half inches on either side of the seventh cervical and last dorsal vertebræ were subsequently applied. At the end of June the joints had distinctly diminished in size, the two wrist joints each measured only seven and a half inches and the joints of the first and second fingers of the right hand had decreased to two and three quarter inches. The patient was able to walk about with the aid of a stick; the movement of the joints was limited but there was a fair range obtained by the knees and ankles. His general nutrition had greatly improved. His face was fuller and he had a healthier appearance. The limbs, though thin, had gained considerably in circumference, the calves of the legs being nearly treble their former size. Food was taken well and he complained of no pain. He remained in the hospital until August 7th, being treated with massage and baths. He now looked in good health and was able to hobble about without the aid of a stick. The measurement of the joints was the same as on the last occasion. The wrists could be easily extended, but flexion was somewhat limited, the metaçarpo-phalangeal and phalangeal joints were stiff and the grasp was feeble. There were some adhesions about the hip-joints and forced movement gave him pain. The knee-joints were still a little swollen, but they had a fair range of movement, and there was free movement of both ankles. Before he left the hospital the skiagram (Fig. 3) of the left hand and the cast (Fig. 4) of the same were taken. The changes which had taken place can be seen by comparing these with Fig. 1 and Fig. 2. On Sept. 27th the patient came to report himself at the hospital. He was able to walk better and there was freer movement of all the joints. The right and left wrists now measured only seven inches in circumference and had a fairly normal appearance. The finger-joints measured the same as on August 7th.

In this case I believe that the improvement in the patient's wretched and hopeless state was almost entirely due to the counter-irritation kept up from time to time for several days in the region of the lumbar and cervical enlargements.

The following case of a patient who was recently admitted into St. George's Hospital under the care of Dr. A. C. Latham (to whom I am indebted for the notes) is a further illustration of this mode of treatment.

CASE 2.—A widow in domestic service, aged 47 years, was admitted into St. George's Hospital on Dec. 19th, 1900, with the following history. In October, 1898, having previously had no serious illness, she suffered from influenza followed by an attack of pneumonia. In December of the same year she was seized with sudden pain in the right knee and right hand, but unattended with much swelling or heat. The left knee and left hand were shortly afterwards affected. The pain had persisted on and off up to the time of her admission into the hospital, and together with the difficulty experienced in moving her joints had prevented her from following any employment for the previous two years. Her legs had become weak and she had lost flesh during the past year. The appetite had been bad and the bowels were generally constipated. The patient was a teetotaler. There was no history of rheumatism. The catamenia had ceased three years previously. She was a spare anæmic woman and she looked older than her stated age. Both wrists were enlarged and swollen, the movements were very limited, and the outline over the carpal bones was indefinite. The metacarpo-phalangeal joints of the first fingers were swollen and there was much grating on movement The knees were both enlarged, especially the right, the enlargement being on the inner aspect. The right knee felt hot to the touch, could not be completely extended, and could only be slightly flexed. The left knee could be both extended and flexed and the patella was moveable. There was no lateral movement of either knee and grating was marked in the right knee. The temperature was normal. The patient was placed on ordinary diet and the bowels were regulated with calomel and saline aperients. On Dec. 27th a blister six inches by two and a half inches was applied to either side of the upper lumbar vertebræ and the blistered surface was kept open for a week with savine ointment. Within a week of the application of the blisters the patient complained much less of pain in the knees; the right knee was less swollen and less hot, whilst the condition of the left knee was practically normal. On Dec. 30th daily massage of the limbs and joints was ordered. On Jan. 2nd, 1901, the patient was ordered three minims of hydrochloric solution of arsenic with five minims of diluted nitro-hydrochloric acid three times a day. Her general condition was much better and the knee-joints were almost free from pain, but the wrist-joints, although improved, were still considerably swollen and rather painful, especially at night. On the 13th two blisters four inches by two inches each were applied one on either side of the lower cervical and upper dorsal vertebræ, and later the surfaces were dressed with savine ointment. The dose of arsenic was afterwards increased to five minims three times a day. On the 21st the patient's knees and wrists were much better; they could be freely moved without any pain. On the 30th she was discharged. The difference between her condition when she was first brought in a cab and assisted by her friends into the hospital and her condition when she left, able to walk without a stick and free from pain, was most striking.

In the earlier stages, then, of rheumatoid arthritis I think that continuous counter-irritation of the spine is of distinct service and that it may also be usefully employed in the acute polyarticular variety. But when the disease is advanced, the ends of the bones enlarged, and the cartilages destroyed one cannot hope to restore these to the normal condition by any counter-irritation. Such a measure would only increase the patient's discomfort Nevertheless, in chronic cases, where there are from time to time exacerbations of pain and swelling in some of the larger joints, the application of blisters to the spine is of use; and I have seen these conditions very quickly alleviated thereby and the further extension of the disease arrested.

Cambridge

A CASE IN WHICH A LARGE PYLORIC TUMOUR DISAPPEARED AFTER GASTRO-ENTEROSTOMY.

POST-MORTEM EXAMINATION ELEVEN YEARS AFTER OPERATION.

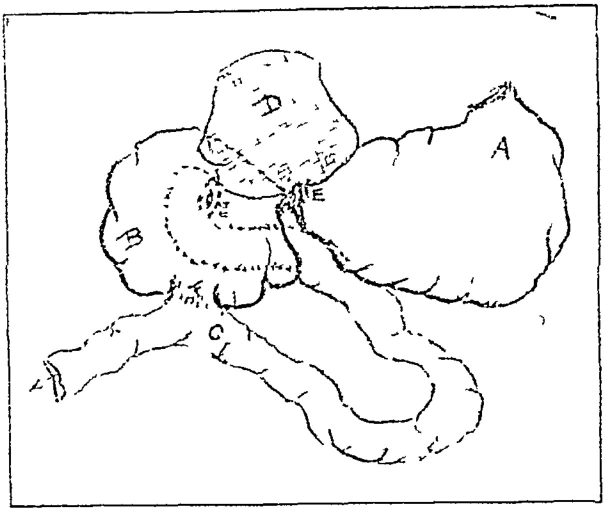
BY FRED. BOWREMAN JESSETT, F.R.C.S. ENG.,
SURGEON TO THE CANCER HOSPITAL, BROMPTON

I VENTURE to think that this case is worthy of record inasmuch as it is one in which a tumour of the size of a small cocoanut completely occluding the pylorus, having all the naked-eye appearance of a carcinomatous growth, disappeared *after* operation, also because of the length of time the patient lived after the operation in perfect comfort.

The patient, a widow, aged 56 years, was admitted into the Cancer Hospital, Brompton, on Feb. 14th, 1890, suffering from pyloric obstruction. She had had four children, the youngest being 22 years old The menopause had occurred six years previously. The patient, who had always been delicate, had suffered from indigestion for a considerable time and had noticed a lump in her abdomen for over a year. She had been confined to her bed for about a fortnight complaining of pain in her chest and back, vomiting, flatulence, and constipation. The symptoms of indigestion had been more or less present during the last eight or nine years. There had been no hæmatemesis. The vomiting, however, increased in frequency, the pain became very acute, and she gradually continued to get worse until November, 1889, losing flesh rapidly and suffering intense pain. At this time everything she ate was vomited usually a few hours after eating. The tumour, which was situated in the epigastric region, gradually increased in size.

On her admission the tumour was found to occupy nearly the whole epigastric region situated apparently over the pylorus and extending along the anterior wall of the stomach; it was moveable and also moved on respiration. The stomach was enormously dilated, extending as low as the pubes. The patient vomited once or twice a day a brownish fermenting fluid filled with sarcinæ. She was very emaciated and weak. The urine was that of a healthy person. The stomach was washed out twice a day with a solution of salicylate of soda and nutritive enemata were given. All food given by the mouth gave great pain and was vomited shortly after. From the size and fixity of the tumour pylorectomy was negatived and it was decided to perform gastro-jejunostomy; this was done in April, 1890, by means of Senn's decalcified bone plates and the patient made an excellent recovery. At the time of this operation the tumour was carefully examined and was found to be situated at the pylorus and had all the appearances of scirrhus; it was adherent to the surrounding parts and was of the size of a small cocoa-nut.[1] The patient left the hospital some two months after the operation, and has been seen periodically until the time of her death from apoplexy in November, 1900.

At the post-mortem examination, conducted by Mr. C. N. Barton, the stomach was found to occupy practically its normal position, but there was a constriction about its centre forming a typical hour-glass contraction (see illustration), the point of constriction being firmly adherent to the left lobe of the liver. The jejunum was seen to be fixed to the anterior wall of the stomach at the seat of operation in the lower part of its distal pouch. The duodenum was of its normal calibre and apparently had continued to a certain extent in conjunction with the gastro-jejunal opening to perform its normal functions. On opening the distal pouch of the stomach the opening between it and the jejunum was found to be large enough to admit two fingers. At the constricted portion of the stomach the opening between the two pouches was very small, barely admitting one finger. The pyloric opening situated immediately behind the constriction admitted one finger with difficulty. The constricted portion was hard and firmly adherent to the left lobe of the liver. This was the only remaining sign of the large growth found at the time of the operation. The stomach walls were normal; there was no thickening. All the other organs were healthy.



Diagramatic sketch of a case of gastro-jejunostomy. Death 11 years after operation. A, Larger pouch of stomach measuring 5 × 4 inches. B, Smaller pouch, 3 × 3 inches, containing opening of pylorus. C, Jejunum. D, Left lobe of liver. E, Cicatricial band of adhesion between liver and stomach which by contraction caused division into pouches A and B. F, Site of operation (gastro-jejunostomy). G, Pylorus.

There are many points of interest in this case. First, at the time of operation the tumour had all the macroscopical appearances of a case of carcinoma of the pylorus causing obstruction. At the necropsy the pylorus was found to be patent although somewhat constricted, the mucous membrane covering it being apparently quite healthy; the pyloric orifice was situated immediately behind the constriction, which undoubtedly represented the seat of the tumour, so that possibly the tumour being in this position by its size blocked the pylorus which apparently was not implicated in the growth, and as the growth became atrophied and the obstruction removed the opening again became available for the passage of food. Secondly, it is most remarkable that this growth should have so completely disappeared leaving only a small contracted cicatrix adherent to the liver to indicate its position. There had never been any vomiting of blood or other indications to account for its disappearance. Indeed, the tumour was quite prominent and had been demonstrated on several occasions after the operation up to within about two years of the patient's death when only a slight thickening could be detected. Thirdly, although evidently food had passed by the pylorus, yet the opening between the stomach and jejunum formed the main opening for the passage of the food from the stomach into the intestine. The communication between the proximal and distal pouches of the stomach formed by the contraction and cicatrisation at the seat of the tumour was very narrow, barely admitting the index finger, and it is difficult to understand why the patient did not suffer more inconvenience than she did from the passage of food from the one pouch to the other.

A somewhat similar case is recorded by Dr. Demoulin and Dr. Tuffier.[2] It was that of a naval lieutenant, aged 32 years, who suffered from severe dyspeptic symptoms early in 1897. In 1898 a hard swelling developed in the epigastrium; all medical treatment was of no avail and the patient became emaciated. The swelling was as large as an orange. Malignant tumour was diagnosed and Dr. Demoulin operated on Dec. 1st, 1899. A soft tumour was found situated around the pylorus and the adjacent parts of the stomach and the duodenum and it felt like a fatty growth; there were no enlarged glands. The patient was so exhausted that pylorectomy was considered impracticable; Dr. Demoulin therefore performed gastro-enterostomy. The patient made a slow recovery. On the twentieth day after the operation Dr. *Demoulin palpated the epigastrium and to his surprise* the tumour could no longer be felt, its site being marked by a little thickening which vanished within ten days. In May the patient was again on active service.

The case is also of interest read in conjunction with the case of Hour-glass Stomach and Pyloric Stenosis; Gastro-enterostomy, Death, recorded by Dr. Sidney Martin and Dr. Bilton Pollard.[3]

For the outline drawing of the specimen I am indebted to Dr. C. Davis, house surgeon to the Cancer Hospital, Brompton.

Brook-street, W.

THE INFLUENCE EXERTED BY AIR UPON THE EXHIBITION OF ANÆSTHETICS.

BY GEORGE FLUX, M.D. BRUX., L.R.C.P. LOND.,
M.R C.S. ENG., L S.A.,
ANÆSTHETIST TO THE BRITISH LYING-IN HOSPITAL; CLINICAL ASSISTANT TO THE ANÆSTHETIST AT KING'S COLLEGE HOSPITAL; ASSISTANT ANÆSTHETIST TO THE DENTAL HOSPITAL OF LONDON.

AIR governs the administration of anæsthetics, by it the patient is enabled to live while he inhales the anæsthetic, and by its instrumentality the dose of the anæsthetic is determined. No manner of administration that involves the curtailment of a patient's air-supply or that fails to direct the course traversed by the air on its way to a patient can ensure either accuracy of execution or limitation of results. Any patient can be reduced to silence and the stillness necessary for surgical procedure with facile certainty, and for that matter frequently is so reduced, by the least practised of administrators. Unfortunately, the power to force a patient to inhale an anæsthetic vapour is not always associated with the practised knowledge requisite to regulate it, and the patient suffers in consequence; not only does he incur the risk of being semi-asphyxiated or totally asphyxiated, but the risk of receiving an excess of anæsthetic and, if he survives, of being grievously sick for hours.

An enormous amount of literature has been produced from time to time dealing with the very important question as to what should or should not be considered the correct dose of any particular anæsthetic. Physiologists and others have told us the effects produced upon the human body as a whole, and upon different portions of it in particular, by the presence of ascertained proportions of anæsthetics. Probably no one will deny that all patients are dissimilar, that the conditions of every operation differ, that the methods of administration differ, that each administrator employing any particular variety of so called method does so in a manner peculiar to himself, that practically the only constant factors present at *an administration are the anæsthetic and the air, and that* unless these two essential factors are under absolute and minute control no hope can ever be entertained that reliability of results will be secured or the true merits of the different anæsthetics established. A uniform dose of any particular anæsthetic is no more likely to fit every patient than is a uniform size of boot, but that is no reason why the means employed to deliver the different anæsthetics in the form of vapour should not act with uniform precision, however much it may be desirable to control and vary their rate of action. It can hardly be contended, for instance, that pouring liquid ether on to a sponge, as with Ormsby's inhaler, or A.C.E. mixture on to a sponge contained in a Rendle's mask, or chloroform *on to* a towel or "piece" of lint, are in any degree accurate methods of developing and delivering the vapours of these fluids. Neither can it be contended that the quantity of vapour produced by evaporation and inhaled by the patient are under anything like an exact control. The fluid may be poured on to the evaporating *surface in successive and carefully measured* amounts and the size of the evaporating surface controlled, but the volume of vapour available for the patient at each inspiration cannot fail to be merely conjectural. The supply *of vapour is indefinite at all times, it may be increased or* diminished knowingly or unwittingly, but the variations that do occur are variations of unequal and undetermined increments.

---

[1] THE LANCET, July 12th, 1890, p. 68.

[2] Bulletin et Mémoire de la Société de Chirurgie de Paris.

[3] Brit. Med. Jour., Dec. 8th, 1900, p. 1635.

It is not *my* intention to suggest that the allowance *of* anæsthetic vapour for each successive breath that a patient draws during an administration should be separately made the subject of an abstruse mathematical calculation and intricate *fractional measurement, as that would be manifestly* impracticable, but I do suggest the propriety of employing *methods of administration which shall not curtail a patient's* air-supply and that shall be capable of intentional variation but *incapable of indefinite action. It is highly desirable* that an administrator of an anæsthetic should be able to be conscious of the exact value of any variations that he may find it advisable to make during an administration, but it is *not essential that he should think in figures if his* arrangements are such that "more" or "less" means more or less of a definite substance. The sailor who "takes a pull" at the main sheet or "eases it off," as the case may be, does not use a *foot* rule every time he either gives more or less sheet, but the sheet is the same in length and strength throughout the voyage.

I have *said above* that air *governs the administration of* anæsthetics. *The fact that it does so may not* be apparent at first sight (I refer here to chloroform and its mixtures, to ether, and to nitrous oxide gas) and I will endeavour to show how important a part the air plays in the process. No patient can live long without air. No patient can tolerate without injury, or at least discomfort, any deprivation of his natural air-supply. No anæsthetic can be continuously given in the absence of air. The presence of air is essential to enable the anæsthetic to be efficiently employed. *Nitrous oxide gas administration well illustrates this;* this gas cannot be given without air (or oxygen) for a period longer than it takes for a patient to become asphyxiated; the same holds good with ether and with chloroform; in the case of chloroform, poisoning would probably occur as soon as, or sooner than, asphyxia. The dose inhaled of each of the above-mentioned anæsthetics is regulated *by the air-supply.* Air cannot be withheld *during* an administration without simultaneously compelling the patient to breathe an atmosphere of pure and undiluted anæsthetic vapour. Air cannot during an administration reach a patient without conveying anæsthetic vapour—the air conveys the dose; the dose conveyed depends upon the amount of anæsthetic vapour taken up by the air *en route.* The opportunity the air has of taking up vapour depends upon the route that the air has taken; if it has passed over or under the evaporating surface it will contain vapour in proportion to the *size of the evaporating area, but if it* passes through the evaporating substance it will be saturated with anæsthetic vapour.

Take, for example, the method by which chloroform is administered from a folded towel, a Skinner's frame, or a piece of lint. When held over, but not touching, a patient's face the air entering from below and all round the face-piece takes up and conveys an amount of vapour proportionate to the rate of evaporation and the size of the free evaporating surface. This can in a loose way be *depended upon to be more or* less uniform. If from any cause the mask is permitted to descend and adapt its margins to the surface of the patient's face the air passes through instead of under the evaporating area, and the whole mass of inhaled air becomes instantly charged to saturation with chloroform, an atmosphere that no living thing can withstand for more than a few seconds, as has frequently been demonstrated on the human subject. When a Rendle's *perforated mask, packed with a* sponge or other absorbent substance, is employed for giving chloroform mixed with other volatile substances the air regulates the dose in a precisely similar manner, the entering air either *picking up vapour given off from the evaporating surface* in varying but unknown proportions or becoming saturated with vapour *if drawn through the* moistened absorbent material. However, as the margins of the inhaler where in contact with the face are hard and cannot therefore fit accurately it seldom happens that all the indrawn air has the opportunity of becoming saturated unless the ingress of the air between the inhaler and the face is deliberately *prevented by the administrator; fortunately this is* a matter of some difficulty and one requiring time to accomplish. Most of these mixtures owe their fictitious safety rather to the part played by the air than to their composition. It has *not been shown in the case of any one of them that the* chloroform contained in them is less readily absorbed when inhaled, or when absorbed less potent. Were it so the utility of the chloroform in the mixture would not be obvious.

In order to ensure that the amount of anæsthetic vapour inhaled by a patient at any particular breath is the same as the administrator hopes it to be, it is necessary to employ a *system of developing and of conveying vapour* which shall not be liable to dangerous or spontaneous vagaries. In such a system it is desirable to work through the agency of some one instrument the action of which is constant. That *instrument, fortunately,* is invariably present—namely, the air. Air can only take up and convey at atmospheric pressure and at any given temperature and pressure (conditions that do not appreciably vary during any given administration) a *definite maximum* amount of any particular anæsthetic vapour, so that by controlling the amount of inspired air that is permitted to influence the supply of anæsthetic vapour the proportion of anæsthetic present in the air at each inspiration can be gently and evenly raised or lowered as occasion requires.

As I said before, it is the air which ultimately determines the amount of anæsthetic inhaled, but—and herein lies the difference between the methods usually employed and the system which I now advocate—in the former the air is excluded from, or admitted to, the patient without regard to the influence exerted by the air upon the magnitude of the dose of the anæsthetic employed; in the latter the air is not excluded from the patient, and its natural properties are purposely employed *to govern and limit the output of* anæsthetic vapour, and the anæsthetist manages the anæsthetic by means of the air rather than in defiance of it. Until it is recognised that during the administration of any anæsthetic every alteration that occurs to a patient's air-supply produces simultaneous alteration in the dose of anæsthetic inhaled the dangers that arise from unsuspected variations are likely to continue. He who *administers* an anæsthetic has two widely differing tasks to perform. Firstly, he has to exercise his judgment both as to the limited effects he wishes to *produce* upon the patient by the anæsthetic and as to the variations in dosage requisite to keep his patient in a satisfactory condition; and secondly, he has to act up *to* his judgment, and, therefore, unless he is in a position to dispense his anæsthetic vapour with accuracy his performance must of *necessity be uncertain.* The dangers that do arise from unsuspected or uncontrolled variations are not rendered *less frequent* by the very prevalent custom of regulating the dose according to the effects produced (in *contra-distinction to regulating* the *effects* by the dose). This custom has, especially when the equipment which is employed to exhibit the anæsthetic vapour is in the least degree indefinite in its action, the great drawback that very undesirable effects are liable to be established prior to their *becoming apparent to the* administrator whose subsequent efforts to regulate his dose may be too late. There is another drawback to this *custom—namely, that* unpractised administrators are prone to give their patients the most that they can stand short of their exhibiting actual symptoms of poisoning, rather than to restrict their administration to the limits of efficiency—a proceeding requiring the exercise of considerably greater judgment.

The system of administering anæsthetics by means of the air is simple and has the advantage that it is equally applicable to all anæsthetics. It consists, not in attempting to control the output of vapour by varying the copiousness of the source of supply, which under this system is a matter of indifference, but in regulating the amount of fresh air that is permitted to take up fresh anæsthetic vapour at each inspiration, this amount being, although definite in composition, variable in quantity at discretion, and it becomes added to the fresh air which completes the inspiratory volume. The essential points in respect of the equipment employed for utilising this system are that it should be absolutely incapable of spontaneous alteration in either shape or condition—of being varied in action by the patient—or of automatic action. Specially constructed apparatus is not necessary when these conditions are present. I should like to emphasise the fact that administration by means of air is only a system for providing a patient with the vapour in a definite manner; the amount administered must, as in the case of all therapeutic agents, be a question entirely of judgment; but of one thing I am certain, and that is that the system cannot, until nature changes the property of air, play its employer false. Personally I use, when carrying out this system in its entirety, apparatus of my own devising—namely, an inhaler for chloroform, an open apparatus for nitrous oxide gas, a special form of stopcock for use with nitrous oxide or for use when employing Clover's ether inhaler, whether with or without gas. These were made originally for me by Mr. J. H. Montague of 101, New Bond-street, W.

Old Burlington-street, W.

THREE CASES OF ACUTE ASCENDING PARALYSIS.

By T. A. GREEN, M.D. Edin.

Acute ascending paralysis is a condition of great interest, not only because of its comparative rarity, but also on account of the very diverse opinions which have been held as to its causation. The first published cases of the disease (10 in number) were contributed by Landry in 1859—hence it often goes by the name of Landry's paralysis; and since then many other examples of the disease have been continuously put on record. The most extensive contribution to the literature of the disease in this country was made by the late Professor James Ross of Manchester who, in 1889, in a series of articles on "Peripheral Neuritis" collected and discussed 93 cases in the *Medical Chronicle*, vols. x. and xi. In February, 1896, a paper on "Idiopathic Acute Ascending Paralysis," by Dr. Reynolds, appeared in the same journal, and several cases have been narrated in the various medical magazines. It has been my fortune to see three cases of the disease in my own practice and to these I am able to add a fourth—a most interesting case—which occurred in the practice of a friend. I propose to give an account of three of these cases and I trust at some future time to be able to discuss the condition in order to bring out some points which I think worthy of note. In order to do this I shall take full advantage of the series of cases collected by Ross which will be found in tabulated form in vol. x. of the *Medical Chronicle*, p. 358. A somewhat different explanation of the disease to that advocated by Ross can, I think, be given.

My cases are as follows.

Case 1.—The patient was an unmarried girl, aged 19 years, living at home with her parents. Her father and mother were alive. The father suffered from chronic bronchitis. The brothers and the sister of the patient were healthy; one aunt had had "swelling in the neck and went off in a decline." Until two and a half years previously there was nothing of importance—no rheumatism or syphilis. For two and a half years she had suffered from Graves's disease in which all the usual symptoms of that condition had been displayed. During this time her menstrual periods became irregular and finally they ceased five months before the present illness. Subsequently to their cessation, however, she had suffered from periodical attacks of epistaxis. On June 30th, 1894, the patient came to consult me and complained of general weakness, severe headache, sickness, and constipation; in addition she was suffering from one of her attacks of epistaxis. On inquiry I found that she had been under treatment at the local infirmary for some months for her "goitre." This had been progressing favourably and on her last visit there (June 21st), nine days previously, she was very much better. Hurrying off to the station, however, she missed her train and received a severe chill and had felt ill ever since.

On examination the symptoms of goitre were well marked. The heart was enlarged and there was a systolic murmur at the base. In the lungs there was chronic bronchitis with purulent sputum but no consolidation. On July 4th I was called in to see the patient and I found that the general weakness was increasing, especially in the lower limbs. She was sitting in a chair, but was quite unable to stand or to walk by herself. Epistaxis still continued at intervals, as did also the sickness. She complained of violent pains striking from each side of the neck down into the shoulders and the arms, worse on the left side. Vision was good; the pupils were equally dilated and reacted to light. The pulse was 120 and weak and the temperature was 99°F. The sickness and epistaxis gradually became relieved, but the muscular weakness still progressed and attacked the upper limbs—first the muscles of the shoulder and the upper arms, then the muscles of the forearm—and she was obliged to take to her bed. On July 7th the neuralgic pains returned at intervals and on this day the patient had a sharp attack of palpitation and dyspnœa which lasted about 10 minutes and then passed off, leaving her in a very exhausted condition. She also complained that her eyesight had gone and the eyeballs seemed more prominent. On the next morning (July 8th) I found that she had passed a very restless night with delirium and was in a very exhausted state. The lower limbs were completely paralysed and she was lying propped up in bed. The upper arms were quite helpless, but she could with difficulty raise the forearms off the bed. The grasp of the hand was very feeble. Sensation was unimpaired, superficial reflexes could be elicited, but ankle-clonus and knee-jerk were absent; there was no wasting of the muscles. Her eyesight had improved, but from this time her power of vision varied from day to day. Attacks of dyspnœa came on three or four times a day. From this time she continued to get weaker; the muscles of the trunk became gradually paralysed and by July 15th she could only swallow liquid nourishment with difficulty. Her tongue became dry and brown and sordes began to collect on the teeth. Delirium was now almost constant. On the night of the 15th she complained of pain in the chest and her temperature was 100°. Next morning I found that she had had a very bad night, with restlessness, pain in the chest, and attacks of dyspnœa. Her breathing was difficult and on auscultation the action of the heart was found to be very laboured and galloping. The temperature was 101°. She gradually became worse and died at 11.30 A.M. from paralysis of respiration. The sphincters acted normally until just before death when there was some incontinence of urine. There was no post-mortem examination.

Case 2.—Dr. J. Scott Taggart, who was assisting me at the time, greatly helped with the notes of this case. The patient previously to this illness had been a strong, healthy man. His age was 23 years and he was married and had one child. He was a quarryman by occupation, was well known as a football player, and was a very temperate man. His previous illnesses had been restricted to obstinate constipation and slight accidents at football. One of the latter had happened four months before the present illness, when he received a kick on one shin, and a troublesome little ulcer, deeply injected and never larger than a shilling, formed and did not heal for five or six weeks. On May 20th, 1895, he was quite well, but on the following morning he began to suffer from pain in the calves of the legs. These pains became so severe that he gave up work at noon and then the pains extended through his legs and back. On the next day (May 22nd) he was worse and he sent for me. He now complained of pain in his head (both back and front), in his back, and in the muscles of his thighs and legs.

On examination the tongue was found to be coated with thick white fur, the mouth was sore inside, the teeth were bad especially on the left side, and his appetite was bad. The heart and lungs were sound. The temperature was normal and the pulse was 60 per minute. There were slight redness of the conjunctiva and watering of the eyes. The pupils reacted to light and accommodation. There was no numbness or disturbance of ordinary sensation and no paralysis or paresis. The painful parts were not tender to pressure. On the 23rd the pain had left the back and was localised in the back of the thighs and in the calves. The temperature was normal and the pulse was 60 The eyes were still injected, but there was no pain or photophobia. A herpetic eruption had appeared on the lips, the mouth was still sore, and the tongue was furred. On the 24th the patient was quite free from pain and headache. The temperature was normal and the pulse was 60. He however complained of sleeplessness. He got up at noon and dressed, but felt so weak that in two or three hours he went back to bed. The appetite was improved. On the 25th the patient was in bed, suffering no pain but feeling very weak. He could move his legs and toes, also his arms and hands, and his grasp was fairly good—a little stronger on the right than on the left side. He was unable to stand alone and complained of numbness in his hands and feet He could distinguish between the head and point of a pin all over his upper and lower extremities. He was perspiring freely. On the 27th I found the patient very weak but his appetite was good. He was lying on his back and was unable to raise his lower extremities from the bed though the contraction of the muscles could be seen and felt. He could slightly move his foot, but not his toes. The muscles of the thigh were much more powerful than were those below the knee; no tendon or skin reflexes could be elicited on either side in the lower extremities. The upper limbs were very weak. He could only just move his fingers; he could close his hand but his grasp was extremely feeble (practically absent). The muscles moving the wrist were a little stronger; the muscles of the arms were fairly strong and those of the shoulder and neck were in good condition. The sphincters were normal; perspiration was still profuse. On the 28th the patient was much the same as on the previous day but had developed facial paralysis on the left side. He said that his mouth became drawn on the afternoon of the previous day. He had had a sleepless night; the pulse and the breathing were good. The temperature was 99° F. He was rather troubled with some thick sticky mucus in his throat, which was with difficulty coughed up. On the 29th at 1.30 A.M. the patient was taken suddenly worse He became delirious and slightly cyanosed. The temperature was 99.4° and the pulse was 114. He perspired freely and was troubled with the mucus in his throat, which, however, was not large in quantity. His delusions during his delirium seemed to have some connexion with his paralysis, seeing that he called upon his friends to save him from sinking through the bed or to deliver him from people who were tying him down or who were suffocating him Under treatment he rallied and two hours afterwards he went to sleep. He was seen again at 10.30 A.M. and had then had three or four hours' sleep. He had had a good breakfast. His limbs were quite powerless. The pulse was 110 and full. The diaphragm was paralysed and the breathing was intercostal in type. There was slight cyanosis and the mucus in the throat was still troubling him. At 3.30 P.M. he was again taken suddenly worse and in spite of all treatment he did not improve He became extremely cyanosed and quite wet with perspiration The pulse was 110, full and regular, and the respirations were 30 per minute There was a large quantity of thick tenacious mucus in his throat and his extremely weak efforts to get it up exhausted him very much; its removal afforded temporary relief, but it soon accumulated again. The cyanosis gradually increased, then came failure of respiration, and finally failure of the pulse and death at about 4 P.M. Unfortunately I was unable to get a post-mortem examination and there were no electrical tests.

CASE 3.—The patient was a male child, aged three years and 10 months. There was no particular family or personal history. On June 2nd, 1900, I was sent for to see the child and found him suffering from a mild though undoubted attack of diphtheria The membrane was confined to both tonsils and the upper pharynx and did not spread to the larynx The case was not a severe one and the temperature was never above 101° F. There was little swelling of the glands of the neck. Antitoxin was not used. The throat was swabbed out twice daily with antiseptics—at first with a solution of izal (1 in 50) and later with carbolic glycerine—and by June 13th to all appearances the throat was in a normal condition. On the 16th difficulty of swallowing supervened with paralysis of the muscles of the soft palate and regurgitation of fluids through the nose. There were also weakness of the lower limbs and inability to stand without assistance The upper limbs, however, were fairly good; sensation was normal and there was no active wasting of the muscles Liquor strychninæ hydrochloratis in one minim doses was administered every four hours, but the child showed no signs of improvement He continued in this state until July 3rd when it was noticed that the head was drawn to the right side from paralysis of the muscles of the left side of the neck. There were also "rattling" in the throat and increased difficulty of swallowing from paralysis of the lower pharyngeal muscles On the 7th there was marked increase of paralysis of all the muscles of the body. The child was lying on his back and it was with difficulty that he moved either legs or arms. The head was not so much drawn to the right side owing to commencing paralysis of the muscles of the right side of the neck. On the 10th the breathing had become costal in type. There were paralysis of the diaphragm, complete paralysis of the lower limbs, and only very slight movement in the upper limbs The knee-jerk and the superficial reflexes had disappeared. The eye reflexes were normal and the child was conscious until he died in the afternoon from failure of respiration. After June 13th the temperature continued normal and there was no active wasting of muscles all through the illness. Sensation was normal and there was no incontinence of urine or fæces

Meltham

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

◆

LARYNGEAL DIPHTHERIA (?).

BY A. DE WINTER BAKER, M.R.C.S. ENG., L.R.C.P. LOND.

THE fatal case of laryngeal diphtheria reported by Dr. G. J. Maguire in THE LANCET of March 23rd, p. 854, induces me to send you a short note of a case which has recently occurred in my practice.

The patient was a boy, four years of age, of a highly nervous and excitable temperament, whom I had attended about a year before for a bad cold and slight enlargement of the tonsils. On the present occasion I was called to him one evening and found him suffering from a croupy cough. The tonsils and fauces were slightly red and inflamed, but there was nothing like any membrane to be seen, and his temperature was only 99° F., so that, judging from his former illness and bearing in mind that he had some chronic enlargement of the tonsils, I believed the case to be one of simple catarrh about the glottis and told the friends that they might hope for a speedy improvement from the use of suitable remedial measures. On visiting the patient on the next morning I found him up and dressed the croupy sound having quite gone and the temperature being normal, and he was altogether so much better that I did not intend to visit him again until the day after next. However, in the evening of the same day I was again sent for and I found him with stridulous breathing and general signs of obstruction of the larynx. The temperature was only 99°. No membrane could be seen on the fauces or tonsils, and as it was exceedingly difficult to get a view of the throat owing to the refractoriness of the patient I judged it wiser not to introduce a swab for bacteriological examination as I should have liked to do On the same evening Dr. O. J. Harrison saw him in consultation with me, and we decided to inject anti-diphtheritic serum. However, owing to the syringe breaking this was not done at the time. On the next morning the breathing was better, but the temperature rose steadily through the day, reaching 103° in the afternoon, when it began to fall again, and it was 100° at night There were harsh râles over both lungs. A fresh syringe having been procured 2000 units of serum were injected at night in spite of the patient being evidently easier and better. On the next morning the temperature had fallen to 99° and the patient was better in every way, and from that time he made an uninterrupted recovery.

Whether this was a case of diphtheria or not and whether the improvement was due to the serum injection I am unable to say positively. No membrane was coughed up or seen at any time. Doubtless, as Dr. Maguire says, there are cases of mild diphtheria that are not recognised, but the lesson to be learned from these mild cases is the value of serum injection. As far as I am aware it does no harm, and I shall certainly resort to it again in any doubtful case. I think it is possible that had it been used in Dr. Maguire's case the result would have been different.

Northumberland-avenue, W.C.

CARCINOMA OF THE PROLAPSED UTERUS.

By HERBERT SNOW, M.D. LOND.,

SENIOR ACTING SURGEON TO THE CANCER HOSPITAL, BROMPTON.

A WOMAN, aged 73 years, the wife of an agricultural labourer, was admitted to the Cancer Hospital, Brompton, on Jan. 16th, 1901, with carcinoma of the prolapsed uterus. There was no family history of cancer. The uterus had become procident at the climacteric period—i.e., about 28 years previously—and she gravely stated that this had been brought on by her husband rubbing her back for the common lumbar pains. She had since gone about as usual, wearing only a diaper, and no pessary or other support had ever been resorted to. The cancerous development (cervical) was said to have commenced a year before. As the duration of malignant disease in the female is almost invariably much understated, one of about twice that length was inferred from the objective phenomena. Above the growth was a considerable margin of healthy vaginal mucosa. The parts were freely mobile. Unfortunately, however, there were signs of extensive implication of the bladder. The urine was copiously laden with pus and albumin. The patient was very senile and hence the idea of operative removal had to be abandoned. She had pain on micturition but at no other time, and while she was kept in bed she had no suffering whatever. She still remains in hospital.

Carcinoma, cervical or otherwise, of the procident uterus seems to be a singularly rare event; whereas it might have been expected to be common, from the exposure to friction. I have not met with a case before, nor have any of my medical friends to whom this has been mentioned. Presumably the rational explanation is that the existence of the disability induces care of the exposed parts with concomitant cleanliness and health. Ordinarily, too, a pessary is worn. The disease in this case seems to be a result of the neglect of all such precautions.

Gloucester-place, Portman-square, W.

A MODIFICATION OF THE ROMANOWSKI-RUGE METHOD OF STAINING THE PLASMODIUM OF MALARIA AND OTHER PROTOZOA.

BY W. HANNA, M.B. R.U.I., D.P.H. CANTAB.

THE following account of a modification of Romanowski's method will be found in the *Russian Archives of Pathology, Clinical Medicine, and Bacteriology*, vol. x., part 4, where Dr. N. Berestneff describes an exceedingly convenient and rapid method of staining malaria plasmodia. It has been used with great success in this laboratory and deserves to be widely known in scientific institutions in England. The following is the method of preparation. A 1 per cent. aqueous solution of methylene blue (med. puriss. Höchst) containing 0 3 per cent. of carbonate of soda, is heated for three hours on a water bath and filtered. One cubic centimetre of this solution is mixed with 1·5 cubic centimetres of a 1 per cent. aqueous solution of methylene blue and to this mixture are added five cubic centimetres of a 1 per cent. aqueous solution of eosine (extra BA Höchst). Old preparations of semilunar bodies and halteridium Danielewskii ought to be stained in this mixture for from 15 to 20 hours at laboratory temperature. For young forms it is sufficient to stain for from 15 to 20 minutes without heat, followed by gentle heating for from 15 to 20 minutes until steam rises. To decolourise the red cells, which are blue after this staining, the preparation is put for from two to five seconds in the following mixture:—10 cubic centimetres of methylene blue, one per cent., 200 cubic centimetres of distilled water, and 0 25 cubic centimetre of acetic acid. The preparations are washed in water and dried with blotting-paper, and they are then dipped for from five to 20 seconds in absolute alcohol to dissolve off any residual stain and finally washed in water. Fresh preparations of blood containing plasmodia fixed with absolute alcohol are stained in this mixture diluted with from two to four volumes of water for five minutes without heat, followed by gentle heating for from five to 10 minutes. Blood containing trypanosoma and slides of the intestinal contents of guinea-pigs having trichomonas fixed with absolute alcohol or sublimate, are stained with this mixture undiluted or diluted with two volumes of water, as for plasmodia. The flagella are stained a violet-red and it may be seen (in trypanosoma) that they have a nucleus; the same may be said regarding trichomonas. The chromatin of plasmodia and the other protozoa in question is stained by this method a bright red violet, the protoplasm blue, the leucocytic nuclei and Bizzozero's plates like the chromatin of the protozoa, neutrophile granules are rose, eosinophilous cells are purple, whilst the red corpuscles are of a delicate rose colour. Dr. Berestneff working in Bombay has informed us that he has slightly modified the above for tropical climates. He adds the stains in the following order and well mixed: Soda methylene blue 1 per cent. diluted with equal parts of water, 0·5 cubic centimetre; methylene blue 1 per cent. diluted with equal parts of water, 1·5 cubic centimetres; and eosine 1 in 2000, 5·0 cubic centimetres. He informs us that the best results are obtained with fresh preparations of halteridium and malaria by at once floating the dish containing the mixture and preparations for from five to 10 minutes upon the surface of water raised to 55° C. The above method has been tried here with excellent results.

Government Research Laboratory, Bombay.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

ST. GEORGE'S HOSPITAL.

A CASE OF FRACTURE DISLOCATION OF THE CERVICAL SPINE COMPLICATED BY FRACTURE OF THE SKULL.

(Under the care of Mr. W. H. BENNETT.)

THE value of traction in replacing dislocation of the cervical spine is sometimes very marked, for often the displaced vertebra gives rise to paralysis merely by pressure, the tough dura mater saving the cord from laceration. The slowness of return of movement and sensation after removal of the pressure is probably to be attributed to the presence of œdema at the injured spot. A little blood also may have been extravasated and some hours or days may elapse before this can be absorbed. The unfortunate cerebral complication in the following case prevented a recovery which the skill of the treatment deserved. More than 18 hours elapsed between the occurrence of the injury and the onset of the coma. This is an exceptionally long interval of consciouness in a case of meningeal hæmorrhage, for the coma usually comes on within an hour or two. For the notes of the case we are indebted to Mr. P. L. Mummery, F.R.C.S. Eng., house surgeon.

A plumber's assistant, aged 25 years, was taken into St. George's Hospital at 6.30 P.M. on Jan. 16th, 1901, having just fallen from the roof of a house (a distance of about 30 feet) on to a grass lawn. He was said to have been quite conscious when he was picked up after the accident. On admission he described the accident and complained of pain in the neck and jaw. His head was turned towards the left side with the chin pointing forwards and was fixed in that position; on examining the cervical spine some displacement of the sixth spine could be felt There were complete paralysis and loss of sensation below the level of the second rib, with loss of sensation and paralysis of both arms. *Respiration was entirely diaphragmatic.* The knee-jerks were absent, but the plantar reflex was well marked. There was priapism. On the left side of the face there was a deep depression about three inches long over the malar bone and involving the left orbit, the whole surface of which was severely burnt, this being due to his having fallen on to a hot soldering-iron which was in his hand at the time of the accident. A diagnosis of dislocation with pressure on the cord at the level of the sixth cervical vertebra was made, and it was decided to make an immediate attempt to reduce it.

The patient having been placed flat on his back traction was made by pulling on the lower jaw and occiput, counter extension being maintained from the ankles by an assistant while another assistant fixed the shoulders. After pulling for some time something was felt to slip with a distinct click, followed immediately by relief of pain and free mobility of the head. No anæsthetic was administered, and the *patient did not complain of pain during manipulation.* At 8 P.M. he could move both arms and sensation in them had returned; he was quite comfortable and slept for some hours. At 6 A.M. on Jan. 17th he vomited at intervals for two hours. His abdomen was distended and his breathing was very laboured in consequence. Two large enemata of olive oil were given to clear the rectum of hardened fæces, the long rectal tube was then passed, and manual pressure was made on the abdomen. In this way a large quantity of flatus was expressed and the distension was relieved. An injection of morphia (one-third of a grain) was administered and was followed by marked improvement in the breathing and cessation of vomiting. At 10 A M. he was much better; the paraplegia and loss of sensation, however, remained the same. The knee-jerks were still absent; some twitching of the legs and left hand was noticed. At about 1 P.M. he began to get rather drowsy and his temperature rose to 103° F. The right pupil was noticed to be rather small; the left, owing to the burn, could not be seen. Priapism had disappeared. At 4 P.M. he was conscious but very drowsy. He gradually became more drowsy and his breathing stertorous; at 7 P M, he died.

Necropsy.—At the post mortem examination an extensive fissured fracture of the vault and base of the skull was found, with a large blood-clot due to rupture of the left middle meningeal artery pressing on the left cerebral cortex On examining the spine it was found that the body of the sixth vertebra was fractured and there was evidence of a recent dislocation at this level. There was no displacement of the spine at the time of the examination and the cord itself appeared to be uninjured There was no hæmorrhage either between the membranes or in the cord itself. All the other organs were normal

Remarks by Mr MUMMERY —From the necropsy it is obvious that the patient died from compression of the brain and not from the spinal injury, though it was impossible to diagnose the compression during life owing to the other injuries. If it had not been for the head injury it seems probable that complete recovery would have followed, as there was no gross lesion of the cord and all pressure had been relieved by the reduction of the dislocation. A point of interest in this case was the amount of force necessary to reduce the dislocation—the force required was very considerable. The case also shows that immediate recovery from paralysis must not be expected after reduction of the deformity. The spinal cord seems to require a certain time to recover after being subjected to pressure. This is even more noticeable in those cases in which laminectomy is done for the relief of pressure, complete recovery sometimes following weeks or even months after the operation. One of the most difficult things in treating these cases is to prevent distension of the abdomen. The most effective means appears to be the use of the long tube and pressure on the abdomen combined with the use of oil enemas.

STANLEY HOSPITAL, LIVERPOOL.

A CASE OF COMA FROM THE APPLICATION OF CARBOLIC COMPRESSES TO THE UNBROKEN SKIN.

(Under the care of Mr. D. DOUGLAS CRAWFORD.)

CARBOLIC acid is absorbed freely by the unbroken skin and in most cases merely darkening of the urine occurs, but if the area to which the drug is applied be large, or the solution strong, severe symptoms are very liable to follow. Coma, with great acceleration of pulse and respiration, is not very rarely observed, and it may lead to a fatal issue, but if the cause of the coma is recognised, and the application is discontinued, recovery nearly always ensues. A case has been recorded,[1] where in error "pure carbolic acid" was used instead of carbolic oil for cleansing the scalp of a child. Within five minutes consciousness was lost and the child remained comatose for five hours. In this case the rapid onset of symptoms was due to the great strength of the application. Litton-Forbes in 1880[2] drew attention to coma as a result of carbolic acid dressings. At the present time antiseptic dressings containing carbolic acid are much less frequently employed than they were in the early days of antiseptic surgery and therefore these untoward results are less frequently noticed, consequently it is important that cases like the following should be recorded, for the dependence of the coma on the carbolic acid applications might fail to be recognised. For the notes of the case we are indebted to Dr. R. G. Henderson, late senior house surgeon.

A girl, aged four years, was admitted into the Stanley Hospital, Liverpool, under the care of Mr. Douglas-Crawford, on Sept. 8th, 1899, suffering from severe double genu valgum. She was a well grown child with thin delicate skin, was somewhat poorly nourished, and was of a rather nervous disposition. On the 13th it was proposed to perform Macewen's osteotomy on both legs. At 6 A.M. compresses of carbolic lotion (1 in 40) were applied to both legs, reaching from above the ankle to about the middle of the thigh. At 10 A M these were removed, the child had a bath, and the legs were scrubbed with oil of turpentine. At about 10 50 A.M. compresses of the same strength were reapplied At 11 A M. the child was apparently quite well and had some milk to drink. At 11.30 A M. Dr. Henderson visited the patient with the object of fitting suitable splints for use after the operation. The child was then asleep She was turned on to one side while the splints were being fitted, but during the manipulation she did not wake up It was observed that she looked rather pale and that the limbs were somewhat limp, but Dr. Henderson regarded her at the time as enjoying a very sound sleep and did not allow her to be awakened. At 1.30 P.M. he sent for the patient to be taken down to the theatre and was then informed that the child looked very ill and could not be awakened. He found that the patient was almost completely comatose, but on sharp stimulation, as by pinching or rubbing the ribs with the knuckle, she would respond slightly by raising the arms or turning the head. The skin was ghastly pale, cold, and clammy. There was marked muscular relaxation, the limbs dropping quite limp when lifted. The knee-jerks were absent. On touching the cornea there was a very slight response of the lids. The pupils were normal in size or slightly dilated, equal, and reacted well to light The lids were not quite closed and were subject to a slight spasmodic winking movement. The temperature could not be got in the axilla, the mercury refusing to rise but in the rectum 98 6°F. were registered. The pulse ranged from 170 to 180 and was small, but at this time it was quite countable at the wrist. The heart-sounds were clear and nothing abnormal was noted. The position of the apex-beat was not definitely localised. The respirations numbered 36 per minute and were deep and regular, but there was no stertor. At 2 P M. the child was in practically the same condition except that the pulse was running at 160 or more and could not be distinctly counted at the wrist. Dr Henderson was at first much puzzled as to the cause of those symptoms. The urine had been examined in the morning and found to be normal. The heart and lungs were normal, and the child had had nothing to eat or to drink for hours It then occurred to him that the carbolic dressings might be the cause. These were at once removed and the legs were well washed. A specimen of urine which was drawn off by the catheter was of a light-greenish colour and of specific gravity 1022 and contained no albumin or sugar. Brandy was administered, hot bottles were applied, and a dose of the hospital white mixture (magnes sulph. and carb. with peppermint water) was given. At 2 45 P.M the pulse was rather worse, being hardly perceptible at the wrist; the coma was, however, somewhat less profound. The patient would open her eyes widely if sharply stimulated. Brandy and white mixture were again given. At 4.15 P.M. she vomited, bringing up the white mixture that had been taken previously. At 4 40 P.M. the pulse was better (142), muscular tone was returning, and she was more conscious. The pupils were more dilated and reacted as before. At 6 P.M. the pulse had fallen to 120. The respirations were 32. She had been perspiring a great deal. At 7.15 P.M. she passed spontaneously five ounces of urine which was green in colour, darker than the first specimen, of specific gravity 1047, and contained no albumin or sugar. At 10 P.M. the temperature was 97° in the axilla, the pulse was 130, and the respirations were 24. An hour later she passed four and a half ounces of urine similar to the last specimen, but the specific gravity was only 1025. On the following morning it was reported that the patient had slept well and had taken milk well. She now seemed to be all right except for some pallor and rapidity of the pulse. These symptoms improved in the next few days, during which time the urine continued to show a gradually diminishing excretion of carbolic acid.

---

[1] THE LANCET, March 2nd, 1895, p. 543.
[2] London Medical Record, 1880, p. 173.

Remarks by Dr. HENDERSON.—The occurrence of coma from the application of carbolic dressings to the skin prior to operation must be extremely rare if we are to judge from the few cases that have been recorded and when we think of the great number of surgical operation cases that are so prepared. I consider, therefore, that the above case is worthy of record In regard to the sequence of events in this case it is to be observed that the 1 in 40 carbolic compresses had been applied for four hours without producing any symptom, that the limbs were then scrubbed with turpentine and the compresses were re-applied, and that 40 minutes later the child was found in an unnaturally deep sleep which continued for two hours, when she was found in the state of collapse and coma described. It seems to me, therefore, that the absorption took place chiefly from the second compress and that the cleansing by oil of turpentine assisted the process partly no doubt from clearing the pores of the skin from fatty matter and probably also from acting as a solvent and vehicle for the carbolic poison. The skin of both legs was absolutely unbroken and when the compresses were removed there was no sign of irritation such as one frequently sees from the use of stronger lotions of 1 in 20. Other points to be noted are that vomiting occurred only once, and that when the patient was coming round and that there was no rise of the temperature above the normal.

I have been able to find records of only three cases similar to the above. Mr. Clement Lucas and Mr. Arbuthnot Lane record two cases occurring at Guy's Hospital[1] and Mr. Lucas reports a second case.[2] Mr. Lucas's first case was that of a boy, aged 15 years, who was the subject of old bone disease of the hip. There were three small sinuses present. A compress of 1 in 20 carbolic acid was applied at noon. He was very sick in the evening and at 2 20 A.M. was found in a comatose condition, the pulse being 200 per minute and very feeble, the breathing stertorous and perspiration profuse. There was no corneal reflex and the pupils were moderately smaller and reacted to light. The coma gradually passed off, but the patient was stupid all the next day, the temperature rising to 103 4° in the evening. He gradually resumed his normal condition in a few days. An interesting feature about the case was that after his recovery carbolic compresses were re applied, to be followed by a train of symptoms similar to those before.

Mr. Lane's case occurred in a boy, aged six and a half years, who had a tumour in the right iliac *fossa*. Here the skin was absolutely unbroken. An hour and 10 minutes after the application of a 1 in 20 compress he was found pale, collapsed, and comatose; the pulse was 130, weak and intermittent; there was marked dyspnœa; the respirations were 72 and the temperature was 97°. Ether, atropine, and brandy were administered. Mr. Lane describes trembling of the limbs and eyelids, as well as the active reaction of the pupil to light, combined with absence of the corneal reflex—features which were well marked in the present case. Gradual improvement took place and six hours from the time symptoms were first noted the child was quite rational, but was sick at intervals for the next 24 hours.

Mr. Lucas's second case was that of a girl, aged five years, with rickety deformity of the tibia. Two hours after the application of a 1 in 20 carbolic compress she was pale and sleepy and about an hour later she was found comatose, though not absolutely so, and with very dull reflexes, clammy sweat, and very rapid feeble pulse. Here the heart was definitely found to be dilated. The conjunctival reflex was not quite lost, the pupils were dilated and almost fixed, becoming contracted later. The patient gradually improved, the coma having passed off in about six hours, leaving her in a stupid condition. There was no rise of the temperature above the normal.

It will be observed that in these three cases the lotion used was the strong 1 in 20. In the present case it was only 1 in 40. In all instances the cardinal symptoms have been alike—pallor and drowsiness (not always observed) leading to coma, with deep or rapid stertorous breathing and an alarmingly rapid and feeble pulse. Profuse perspiration and vomiting were always present. The reflexes were greatly dulled or abolished with the somewhat remarkable exception of the pupil reaction to light, which remains, although the cornea is quite insensitive. Prognosis is good, as in all these cases recovery has ensued in spite of the alarming symptoms. In addition to stimulants and warmth I should, in a case of prolonged coma from this cause, be inclined to try intravenous injection of sterilised sulphate of soda solution. In one case of carbolic poisoning (suicidal) which I have seen this had a remarkable restorative effect.

I have to thank Mr. Douglas-Crawford for his courtesy in permitting me to publish the case.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

The Pathology of Dropsy.—Exhibition of Specimen.

A MEETING of this society was held on April 2nd, Mr. W. WATSON CHEYNE, the President, being in the chair.

The PRESIDENT, in bringing forward certain Alterations in the Rules recommended by the Council, said that after considerable discussion the council had decided to recommend the appointment of four sectional secretaries for the four departments of pathology—viz., (1) pathological anatomy and histology; (2) bacteriology; (3) experimental pathology; and (4) chemical pathology respectively. One senior or general secretary would organise the whole work of the society. There would also be four vice-presidents who would preside over four committees of the council corresponding to these four departments. The necessary alterations to the by-laws of the society to effect these changes were adopted by the meeting.

Professor E. H. STARLING made a communication on the Pathology of Dropsy. He remarked at the onset that he had only been able to perform experiments on healthy normal animals. He had not been able to apply to his hypotheses the only true test—viz., to experiment under diseased conditions. However, dropsy was an abnormal accumulation of normal fluid in the tissues due to a disturbance of the ballance between the production and absorption of fluid in the subcutaneous tissues and serous cavities of the body. He would limit his remarks to the "mechanical" form of dropsy due to simple obstruction, as met with in cases of uncompensated heart disease. The possible factors in the causation of dropsy were very numerous; thus there were some which could act by causing increased transudation and others which could act by causing diminished absorption—factor of diminished absorption negligible compared with product; but in his belief the factor of diminished absorption was negligible as compared with that of increased transudation. The factors involved in lymph production were both chemical and physical. As regards the former, the capillary walls presented no opposition to diffusion and thus there was always a change going on between the fluid within and the fluid without the walls. Wherever there was breaking down of big molecules into smaller and more diffusive molecules then there was increased diffusion. This would explain local inflammatory œdema, but would not explain the enduring or permanent dropsies as met with by the physician. The physical factors influenced filtration through the capillary walls and this depended upon (1) the intra-capillary pressure; and (2) the permeability of the vessel walls. The latter differed in different parts of the body; thus in the viscera the permeability of the vessel walls was much greater than it was in the limbs. They must differentiate between these two kinds of vessels. Now the fluid in the kind of dropsy under consideration collected in the latter where permeability was most difficult. It had been stated that "mechanical" dropsy was very readily explained by a rise of pressure in the veins and capillaries. But simple obstruction to a vein in an animal did not produce œdema. Rise of pressure alone would not produce œdema, it was necessary to alter the nutrition of the capillary wall—e.g., by lowering the vitality of the latter by tissue fibrinogen and other poisons or by producing hydræmia. If the vitality of the capillary walls was damaged by the injection of tissue fibrinogen or other poison, or by producing hydræmia, œdema resulted. Everything seemed to depend on the state of the capillary walls. It was certainly so as regards mechanical œdema by pressure of a tumour. Cardiac dropsy was a little different. In the first place it was difficult to see how there could be an increase of pressure in the capillaries in cardiac dropsy. He (Professor Starling) had made various experiments, employing Cohnheim's device of injecting oil into the pericardium, which demonstrated that there was actually a fall of blood-pressure in the capillaries in simple cardiac failure. It followed, therefore, that the prime change here was not mechanical but in the capillary walls. Just as in ischæmia, the walls became damaged by deficient nutrition and they were not then able to withstand even the normal blood-pressure. The problems presented by effusions into the serous cavities presented much the same solution as in dropsy of the limbs. He had designed various experiments in order to produce pleural effusion by a rise of capillary pressure but without success. But it was very easy to produce dropsy by the slightest damage to the capillary walls or to the pleural membrane All these experiments showed that if the vessel walls remained normal no fluid was effused. In the case of the peritoneum, however, it was possible that a rise of pressure took a rather more active part.

---

[1] THE LANCET, June 1st, 1895, p. 1362

[2] THE LANCET, August 28th, 1897, p. 537.

Dr. W. S. LAZARUS-BARLOW said he was very glad that Professor Starling had modified his views and had thrown over the idea that mere mechanical pressure could produce dropsy. He (Dr. Lazarus-Barlow) had raised the blood-pressure in the hind limb of a dog from 5 to 60 or 70 mm. of mercury and kept it at that for several hours, but had produced only a negligible quantity of dropsy. Moreover, if the filtration view was correct it ought to be possible to show that the first commencement of the dropsy occurred at the very moment at which the vascular pressure was raised. He had investigated this matter experimentally and had no hesitation in saying that it was possible to increase the venous, and therefore the capillary, pressure very considerably without the slightest evidence that fluid left the blood-vessels or passed into the tissues. For this purpose he made careful examinations of the specific gravity of the blood (arterial and venous), the blood plasma (arterial and venous), the specific gravity of the tissues, muscle, and skin, the specific gravity of the lymph, and the rate of its flow. In spite of a rise in the blood pressure in the veins of a dog to 50 mm. Hg., the normal being less than 4 mm. Hg., at the end of an hour no alterations in these values for the specific gravities were observed. On the other hand, it was easily possible to produce a dropsical condition of the dog's hind paw by completely arresting the flow of blood through the limb for an hour and then allowing the blood again to flow through the limb. Under such conditions the œdema made its appearance and was accompanied by the changes in specific gravity, &c., which were to be expected. That is to say, the specific gravity of the blood and blood plasma rose, while the specific gravity of the muscle and skin fell. He had found that the production of dropsy in this way was brought about with more certainty if the blood contained in the limb were simply arrested than if the limb were rendered completely anæmic and kept in that condition for an hour. This he explained by the supposition that starvation of the limb was a less potent factor than starvation combined with poisoning by the waste products of tissue metabolism. He believed that the real causes of dropsy were to be found in these two factors, starvation of the tissues and their poisoning by waste products. The actual manner in which the fluid left the blood-vessels was, he believed, an excess of the normal process by means of which the nutrition of the tissues was maintained. Normally when a tissue was functionating or when it was exposed to warmth its blood-vessels dilated and there occurred an increased amount of lymph flow. He thought that the same factors were at play in the pathological processes constituting the different varieties of dropsy. Upon this view the tissues would determine the occurrence of dropsy primarily and not the blood-vessels. No doubt the process became highly complicated in most cases, but he had never been able to understand how the supporters of the mechanical view of dropsy could explain the dropsy that occurred about the ankle when a surgeon ligatured the femoral artery in Hunter's canal, on the one hand, and the remarkable absence of dropsy in cases of congenital heart disease, in which the evidences of increased venous pressure were excessive, on the other. He maintained that the view which he put forward was a better working hypothesis than the other, that it was competent to explain a larger number of varieties of dropsy, and that it indicated lines of treatment which were more likely to be useful.

Dr W. EWART wished to refer to the clinical aspect of the subject. There was, he believed, a nervous factor in the causation of dropsical effusions and particularly in localised œdema—e g., that associated with abscess or acute gout. Here a vaso motor change was rendered evident in the redness. In the localised œdema of paralysed limbs there was also probably nervous influence Passing to the more general œdemas, and particularly to renal dropsy, his method of treating chronic tubal nephritis by feeding and drainage had lead him to believe that the central nervous control, stimulated by the toxicity of the blood, took the place of the local nervous influence in the localised œdemas. As soon as the dropsical fluid was allowed to escape—e g., by acupuncture—diuresis at once took place. He thought that this could be best explained by the hypothesis he had put forward.

Professor C. S SHERRINGTON remarked that it might be impossible to separate the action of the vessel wall from that of all the other tissues around it, but the vessel wall was the one constant element and justified the inference that this was the chief seat of change. He would like to ask what was the experimental evidence of changes in the vessel wall as regarded its permeability—using that term in its physical sense. There must be a very slight alteration in the nutrition in the vessel wall in cardiac disease.

Dr NEWTON PITT wished to refer to a question which had never been satisfactorily answered—Why was it that in mitral stenosis there was such a marked tendency to ascites and no œdema, while in mitral incompetence there was œdema rather than ascites? The late Dr. L. C. Wooldridge came to the conclusion that the blood change was the main factor in the production of dropsy.

Dr. W. P. HERRINGHAM, while admitting that the mechanical was not a satisfactory explanation, whatever the immediate cause of the dropsy might be—whether a drainage in the vessel-wall or in the tissues outside—and while admitting that malnutrition played an important part, could not help thinking that there were many facts which pointed to the immense importance of mechanical forces. For instance, even in generalised renal dropsy, if a patient lay on his right side, the right side of the face would be more swollen than the left

Dr. HALE WHITE remarked on the suddenness or rapidity with which the ascitic fluid might be poured out in hepatic disorder, a fact which he regarded as against the view that it was due to the contraction of the fibrous tissue within the liver. In some cases of the most extreme contraction of the liver there was no ascites. The largest amount of ascitic fluid occurred in cases where the peritoneum was damaged, as in chronic peritonitis, not in cases where the portal vein was obstructed.

Dr. ROSE BRADFORD, while agreeing that the amount of dropsy was not correlated to the degree of pressure, could not agree with Dr. Hale White in his explanation. He (Dr. Bradford) had always regarded the œdema of the legs in ascitic cases as due to a slight constriction of the inferior vena cava where it passed through the liver.

Professor STARLING, in replying, said that as regards ascites he had ligatured the main trunk of the portal vein, producing very great congestion of the intestines, but no ascites was produced at any time. This showed that the rise of pressure was not the essential change He had repeated Dr. Wooldridge's experiments but he had come to opposite conclusions to him.

Dr. F. S. TOOGOOD exhibited a specimen of a *Hydatid Cyst of the Heart* which had occurred in a man, aged 41 years, who presented no symptom besides progressive asthenia from which he ultimately died.

HARVEIAN SOCIETY OF LONDON.

Exhibition of Cases.

A MEETING of this society was held on March 21st, Mr. J. JACKSON CLARKE, Vice President, being in the chair.

Dr. E. CAUTLEY showed a man, aged 41 years, with extensive Generalised Degeneration of the Arterial System. The man had been a sailor for 20 years and for the last six years he had been a cab-driver. He had syphilis 15 years ago and had suffered from psoriasis for 10 years on and off. He came under observation last November for vomiting and abdominal pain. There was very marked thickening of the arteries, more especially of the abdominal aorta, which felt like a rigid, thick-walled tube. The arterial tension was not raised; there were no evidence of hypertrophy of the heart and no ocular changes. For a month he had a variable amount of albuminuria, but no albumin had been detected during the last three months. After the gastric symptoms had subsided he improved steadily on large doses of iodide of potassium. Dr. Cautley thought that the gastric symptoms were due to deficient nutrition of the stomach through the arteries supplying it being involved in the disease, and he raised the question whether the arterial degeneration was due to some form of syphilitic arteritis, although it was most unusual to find such a condition so late in the disease.—Mr. CAMPBELL WILLIAMS said that there were certain cardinal points in the case that were against the condition being syphilitic. The size, number, and amount of the involved arteries, together with the extreme slowness of the process, which had been going on for years without producing obliteration of any arterial lumen, were rather in favour of a diffused and early stage of atheromatous degeneration. The skin lesion was a coincidence. It was not a squamous syphilide but simply ordinary psoriasis occurring in a patient who happened to possess a former syphilitic history. Iodide of potassium was a drug that was of service in treating psoriasis as well as in treating syphilis.—Dr. CAUTLEY, in reply, agreed in the main with what Mr. Campbell Williams had said, but he thought it probable that the syphilis was largely responsible for the arterial disease, even if there was not a true syphilitic arteritis.

Mr. P. L. DANIEL showed a case of Enlarged Spleen with no Leucocytosis. The patient, aged 11 years, born in Yorkshire, had lived chiefly at Kingston-on-Thames, and had never lived abroad or in the fen country. There was a history of whooping-cough and indefinite illnesses at various times, but not of measles. The patient was admitted into Brompton Hospital under the care of Dr. T. H. Green as a case of early phthisis, there being pain in the left side and cough, while there was a swelling found in the left hypochondrium. There was no phthisis. In February, 1900, the patient was transferred to Charing-cross Hospital. The temperature was 99° F. The abdomen was slightly full but there was no obvious swelling. On palpation a tumour of firm, uniform consistence was felt extending from the left costal margin to within an inch of the outer part of Poupart's ligament and from the mid-line internally round the left loin to the erector spinæ behind. The edge was sharply defined and fairly thin. On the anterior edge were two or three notches. The tumour occupied the whole of the left loin except a finger's breadth above the iliac crest in the ilio-costal space. It was dull except at the lower angle which became resonant on inflation of the rectum. No band like that of colic resonance obtained at any time. It moved slightly with respiration. It could be taken between the hands in front and behind, but could not be moved to any extent. Above it extended to the fifth rib in the nipple line, to the seventh in the mid-axillary line, and to the eighth in the scapular line. It was slightly tender. The red corpuscles in the blood numbered 3,740,000 per cubic millimetre, the white corpuscles 12,000 per cubic millimetre, and the amount of hæmoglobin was 70 per cent. There were no symptoms beyond occasional pain in the side and breathlessness which had developed during a stay of some months in the hospital. Twelve months later (in 1901) there were pain in the side, languor, and breathlessness; a doubtful trace of blood in the sputum at times; otherwise the patient had been quite well. At the present time the tumour remains as before. The blood showed 3,700,000 red corpuscles per cubic millimetre and 9000 white corpuscles, the amount of hæmoglobin being 60 per cent. There was little or no enlargement of the lymph glands. The patient was said to have bled a few drops from the nose once recently.—Dr. CARTER regarded the case as one of pseudo-leukæmic enlargement of the spleen. He thought that it resembled cases of much enlarged spleen and anæmia seen in infants, and he suggested that the condition had been present since infancy. The child was not now markedly anæmic and in all probability the disease was a hyperplasia of the spleen which was no longer progressive.—Dr. C. S. JAFFÉ made a few remarks and Mr. DANIEL, in reply, said that he thought that the case was one of splenic anæmia.

Mr. DANIEL also showed a case of Bilateral Ossification of the Tendo Achillis and Plantar Ligaments with Skiagram. The patient, a man, aged 35 years, had suffered from rheumatic (?) pains all his life. His father was also rheumatic. The patient had gonorrhœa when he was 22 years of age and a sore on the penis which disappeared in 14 days by local applications only. No evidence of syphilis was obtained. From earliest recollection he had had tender feet, but when he was 18 years of age he was considerably exposed to bad weather, and he took a chill and suffered great pain in both feet, especially in the heels. Since then he had always been more or less crippled. The attack of gonorrhœa four years later did not appear to have affected the condition in any way. He often had marked shooting pains in the pectorals, the muscles of the back, the deltoids, and the glutei, rendering him unable to move his limbs, the joints appearing fixed. There was no swelling of the joints noticed. He was able to work a tricycle with fair comfort, but he walked with difficulty, and could hardly walk at all when barefooted. Sometimes his boots hurt him very much, but on the whole he was more comfortable in them than when his feet were bare. He was strong, well built, walked very lame, and had a marked stoop. There was no evidence of myositis ossificans and he had good movement in the back and all the joints, including the ankles, which he could flex and extend perfectly when his feet were off the ground. The heels, which were slightly enlarged, were glossey but not red, there was some rigidity of the great toes, and the arch of the foot was slightly depressed. The point of maximum tenderness was at the tip of the heels, but the whole region was tender. An irregular mass could be felt and seen on either side of, and probably on, the tendo Achillis for one and a half inches above the os calcis. Ossification in the plantar ligaments could not be felt. Cold, damp, and walking increased the pain. The condition had been progressively worse. Liniments, especially of iodine, and iodine internally gave slight relief. The condition had been treated for years as osteo-arthritis, of which there was no evidence. No other tendons were involved.—Mr. JACKSON CLARKE said that he regarded the formation of bone in the tendo Achillis and the long plantar ligament as essentially of the same nature as the ossification of the periosteum and ligaments observed in the vertebral column in osteo-arthritis of the spine. The patient said that his father had suffered from gout and a similar predisposition probably underlay the patient's troubles. He (Mr. Clarke) thought that a thorough course of medical treatment and a course of spa treatment at Buxton or Bath followed, if necessary, by drilling the bone at the base of the osteophytes, offered the best chance of success.—Mr. WILLIAMS made a few remarks.

Mr. DANIEL also showed a case of Enlarged Liver with Jaundice of Uncertain Cause. The patient, a labourer, aged 54 years, had always been healthy and had never lived abroad. He was not over-addicted to alcohol, two pints of beer daily being the average quantity taken by him. The present illness began on July 18th, 1900, with listlessness and a feeling of being out of sorts and loss of appetite. There was no pain of any kind. The urine was high-coloured and occasionally the stools were light-coloured. He was told that he was getting yellow and the colour increased in depth till August. He was at home from August to November with varying depths of jaundice and the signs as before. There was also swelling of the feet and the abdomen at night, which disappeared by the morning. There was no history of pain or colic at any period. He was treated for dyspepsia and by mild purgation. He resumed work in November. He was still jaundiced but was better in health. The jaundice continued and varied in depth with constipation till February of this year when the old symptoms returned. There was some wasting. At the present time there was intermittent fever, the temperature ranging from 101° to 98° F. The patient was thin and moderately jaundiced. The liver extended from the fifth rib on both sides to the level of the right anterior superior spine, completely obscuring the stomach resonance. It was uniformly smooth, firm, and the edge was sharp. *Just to the right of the* umbilicus was a localised swelling of the size of a small orange, partly separated from the main mass by a slight sulcus. This was free from tenderness, *slightly moveable*, and non-fluctuant (*? gall-bladder*). The spleen was normal. There were no petechiæ and no ascites was present. The urine and stools varied slightly, the latter being now of a drab colour. The insidious onset of the illness, the absence of colic, the slight emaciation, the partial obstruction to the common bile duct, the possibly enlarged gall-bladder with the size of the liver, the normal spleen, and the pyrexia, made the case a complex one.—Dr. CAUTLEY [illegible] either malignant disease of [illegible] osis. He did not find any [illegible] of the gall-bladder and thought that prominence of the rectus muscle on that side might simulate such a condition.—Mr. E. W. ROUGHTON also commented on the case from a surgical point of view.

Mr. DANIEL also showed a fourth case—one of Supra-hepatic Abscess treated by the Trans-thoracic Route. The patient, a man, aged 29 years, had been a signalman in the navy. He had had remittent fever and dysentery (mucoid stools with tenesmus but no blood) in 1896 when on the China station. Since then he had had three attacks of what was called "gastritis," and the condition had been treated as such. On one occasion he was thought to have a *swelling in the right side which was diagnosed as* abscess of the liver, but it disappeared apparently in the course of six weeks. He left the navy in 1898 and these attacks had all [illegible] and 1900. [illegible] and last [illegible] se of the [illegible] e patient was flatulent, anæmic, and constipated. The liver was not *palpable or enlarged and the spleen* was in a *similar condition.* He had had no definite physical signs, but abscess of the liver was suspected. On March 16th, having been treated for dyspepsia, further notes state that there was exacerbation of pain in the epigastric region. *One* month later (April) deficiency of movement of the right chest was noted and a small effusion of pus was suspected. The liver was still not palpable. The patient was admitted under Dr. Cautley's care three weeks later with an enlarged liver reaching to the umbilicus; he looked very ill, thin, and anxious. His skin was of an earthy, sallow colour. The temperature was 100·4° F. He was intensely depressed in spirits. *A large swelling existed in the right side, filling up* the whole epigastric and upper part of the right lumbar region. It was firm and of elastic consistence, but there was no definite edge. There was no fluctuation and the swelling was dull on percussion. This impaired resonance extended upwards to the fourth rib on both sides in front and to within an inch of the angle of the right scapula behind. The breath sounds were deficient over the right base. The apex-beat of the heart was displaced upwards and outwards considerably. There was tenderness in the epigastrium which was most marked when *the patient was lying* on his back. *The patient slept* well, but *perspired a great* deal at times. There were aching pains in the tip of the right shoulder; slight leucocytosis was present. The aspirating needle in the eighth space of the scapular line *revealed a reddish-brown, chocolate-like* fluid. This consisted of débris and disintegrating cells and gave a pure culture of the bacillus coli communis. The following operation was performed. One and a half inches of the right rib were removed in the mid-axilla, *and the diaphragm* was *pushed up into and above the* wound. The diaphragmatic pleura was raised and sewn to the periosteum and parietal pleura. The diaphragm was incised and three and a half pints of pus escaped; this was odourless. The extent of the cavity could not be ascertained by the finger but the sac was lined by soft thick granulations. A one-inch tube was inserted. The temperature fell to normal, having been remittent. The patient picked up rapidly and gained weight, the appetite returned, and he was up in one month. Scrapings of the sac wall showed amœbæ. The heart returned to its normal position. At the present time (11 months after the operation) the patient says that he never felt better in his life. The lung had expanded. In this case the notable points were the length of time after leaving the East before the patient developed definite signs of liver abscess; the intensity of the gastic irritability; the shoulder tip pain; and, as Dr. Cautley indicated, the surprisingly rapid development of the abscess. Mr. Daniel considered the cavity to be limited by the coronary ligaments and liver and diaphragm—therefore, the abscess was supra-hepatic.—Dr. CAUTLEY said that when he first saw the patient he examined him carefully for evidence of hepatic abscess but could find no such evidence. The increase in size of the abscess was extraordinarily rapid.—Mr. JACKSON CLARKE made a few comments.

Mr. ROUGHTON showed a Man whose Femoral Artery had been tied for Popliteal Aneurysm.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on March 19th, Mr. F. Farrow, the President, being in the chair.—Dr. F. W. Eurich gave a *Microscopical Demonstration.*—Mr. Percy Lodge *showed an Inhaler for use with Chloride of Ethyl.*—Dr. C. F. M. Althorp showed a patient with a Tumour of the Palate.—Dr. Campbell showed a Cretin Dwarf.—Dr. Jason Wood showed: (1) A patient with very extensive Cancer of the Neck; and (2) the Temporal Bone and Cerebellum from a case of Cerebellar Abscess.—Dr. James Kerr showed a case of Sarcoma of the Conjunctiva.—Dr. Kerr read a paper based on 50 cases of Tobacco Amblyopia seen in the past year. It was, he said, important to exclude kidney disease by testing the urine and *tabes by testing the knee-jerks; then in a case of failing* vision in middle age not improved by glasses there remained cataract, glaucoma, and toxic amblyopia as common causes. Cataract should only be diagnosed after inspection in the dark room. The colour scotomata differentiated from simple glaucoma. The ordinary test with a square centimetre of coloured paper failed to detect about one-third of the scotomata; smaller objects, such as a pin-head with red sealing-wax on it, were useful; it might also be necessary to test in a reduced light. One-fifth of the number showed marked unilateral *affection so that each* eye should be tested separately. Hypermetropia was present in *three-quarters of the hospital cases. Other debilitating* circumstances were frequent, and although it generally required at least three ounces of tobacco weekly for many years, with reduced health, as in the case of a woman quoted, one and a *half* ounces had produced a *toxic result in less* than a year. The only treatment required was to stop tobacco; strychnine hastened recovery. The importance of always excluding tobacco effects—often masked by glaucoma, *cataract, or cerebral lesions—was insisted on, their detection* changing a hopeless prognosis as to vision into a very favourable one.—Dr. W. Arnold Evans (medical officer of health of Bradford) read a communication on an Outbreak of Small-pox in Bradford. He said that on Dec. 26th, 1900, he was asked by a medical practitioner to see two cases of suspected small-pox in consultation and was at the same time informed that the medical practitioner had about *three weeks previously* attended in the same house a case which he considered to be one of varicella in an adult. During the few days following *some* other cases of small-pox were reported in the same *locality*, all the infected persons being either friends or relatives of the patients who first came under his notice. About 16 days after the occurrence of the early cases an intimation from the medical officer of health of a neighbouring town showed *that there was* in all probability an outbreak in another part of the city. An investigation proved this surmise to be correct, for a girl was found *in the crusting stage of variola*, having been attended by a medical man for varicella. It also transpired that this girl was a relative of, and had been *infected* by, one of the patients seen on Dec. 26th, 1900, so that what at first sight appeared to be two outbreaks of small-pox was really one. The outbreak up to the present time had consisted of 27 cases, seven of which were those of unvaccinated persons whose *ages* varied *from* six years to 36 years, the other 20 cases being those of persons who showed some evidence of having been vaccinated in *infancy. Although some of the cases of the* unvaccinated class were severe no deaths had occurred in either group. Dr. Evans thought that there should be very little difficulty in distinguishing cases of variola or varioloid from varicella, provided the *following points* were given a due amount of attention—viz: (1) the distribution of the eruption which in small-pox was most copious on the face, wrists, *hands, ankles*, and feet, and which in varicella occurred chiefly on the trunk; (2) the constitutional symptoms which in a case of small-pox with a copious eruption were severe and in varicella mild; and (3) evidence of vaccination, small-pox being very rare in well-vaccinated persons under 10 years of age. Dr. Evans said that he had several times seen severe cases of small-pox mistaken for erysipelas, the misleading symptom being swelling of the face and eyelids. He stated that a characteristic of the present outbreak was the comparative mildness of the attack both in vaccinated and unvaccinated persons. Referring to individual cases Dr. Evans instanced two of small-pox in pregnant women; one woman was delivered in the eighth month, within seven days of the onset of the attack of small-pox. The child was vaccinated immediately after birth, and although subsequently fed at the mother's breast escaped an attack of small-pox. The other woman miscarried at about the fifth month; the fœtus, which had evidently been dead for a considerable time previously to birth, showed signs of a copious eruption of small-pox, chiefly on the back.—The paper was discussed by several members and Dr. Evans replied.

British Gynæcological Society.—A meeting of this society was held on March 14th, Dr. J. A. Mansell Moullin, the President, being in the chair.—Mr. Furneaux Jordan (Birmingham) showed a Fibroid Uterus removed from a woman, aged 49 years, who had had two children. She made a good recovery.—Dr. Macnaughton Jones read notes of a case of large Angioma of the Liver removed from a woman, aged 27 years, who had had three children, the youngest being 17 months old. The tumour occupied the right hypochondrium and part of the lumbar region, simulating closely on examination a large moveable kidney. The abdominal swelling was first noticed more than a year previously. The patient's symptoms were great pain radiating across the abdomen and down to the inguinal region, occasional vomiting, and of late rapid loss in weight. The tumour was situated in the free margin of the liver, immediately to the right of the gall-bladder, projecting more on the deep than on the convex surface of the liver. Some deep fissures marked its upper surface, and over its upper and lower aspects there were yellow and dark brown mottled patches. The base of the tumour was gradually ligatured off by passing Deschamp's needles armed with strong silk through it, and ligaturing it in sections. It was thus isolated and finally clamped before it was divided, strong catgut sutures being also used to secure it. It was thus removed with comparatively little loss of blood. She never, however, recovered from the shock, and sank 18 hours after the operation. The tumour, when shrunken after removal, measured three and a quarter inches by three inches. Histologically, it was an angioma of the liver and there was no evidence of malignancy.—Dr. Macnaughton-Jones also read the notes of a case of Primary Miliary Tuberculosis of the Breast, a condition which appeared to be very rare. In support of this view he quoted Mr. Marmaduke Sheild, Mr. Watson Cheyne, and Mr. Shattock, but Mr J. H. Targett, from the examination of several hundred mammary tumours, considered that tuberculosis of the breast was much more common than was supposed.—Mr. W. Roger Williams read a paper on the Pathology and Surgical Treatment of Uterine Tumours in the Nineteenth Century. After outlining the progress of pathological views from Heister and Hunter to Virchow, he said that Waldeyer pointed out that the doctrine of continuous cellular development ignored the specificity of the tissue elements as revealed by embryology; and though Virchow clearly distinguished carcinoma from sarcoma, it was owing to Waldeyer's teaching that they now looked to pre-existing epithelial cells for the germs whence cancer arose. In 1875 Cohnheim put forward the view that tumours arose from sequestered fragments of the germinating tissues detached during embryonic life. Such fragments had been since found in every part of the body that had been specially examined for them. The uterus was no exception. The track of the Wolffian and Müllerian ducts was strewn with débris of this kind. Mr. Williams then dealt *seriatim* with several varieties of uterine tumours, explaining their origin on this hypothesis. Cancer, he said, had been ascribed to many organisms. Bacteria had been found in uterine myomata, but nothing justified the assumption that the latter were due to the former. Malignant and non-malignant tumours were derived from elements having different developmental tendencies, and the conversion of non-malignant into malignant types need not be anticipated. For the removal of myomata he preferred the vaginal route in suitable cases. He considered that the removal of myomata by abdominal section should be regarded as a means for dealing with certain exceptional cases rather than as the routine treatment.

North of England Obstetrical and Gynæcological Society.—A meeting of this society was held at Sheffield on March 15th, Dr. T. B. Grimsdale, the President, being in the chair.—Dr. Arthur Wallace (Liverpool) showed a specimen of Carcinoma of the Corpus Uteri removed by vaginal hysterectomy. The patient made a good recovery.—Mr. Walter Thompson (Leeds) showed a Uterus with Fibromyomata undergoing degeneration. The soft, brain-like appearance of the growth, together with the clinical features of the case, strongly suggested malignancy; the microscopic examination, however, gave no evidence of the latter. The growth was removed by hystero-myomectomy. Death occurred from intestinal obstruction produced by adhesion of a coil of bowel to the line of suture of the peritoneum.—Mr. R. Favell (Sheffield) showed: (1) A Vesicular Mole which, dating from the last normal period, had enlarged the uterus so that its fundus reached two inches above the umbilicus at the third month, at which time the mass was expelled; (2) a Carneous Mole of the size of an orange which had been retained in the uterus until the end of the seventh month; and (3) a Fœtal Monster with a Large Sacral Meningocele, together with Absence of the Abdominal Wall.—Dr. Martin (Sheffield) showed the Ovaries removed from a case of Intractable Hæmorrhage which had resisted all other treatment, including curetting. Both ovaries were much enlarged and cystic; the right one was prolapsed and moveable and the left one was adherent in its normal position, so that it was not felt on ordinary vaginal examination.—Dr. Sinclair (Manchester) related a case of Cæsarean Section. The operation was successful for both mother and child.—Dr. J. B. Hellier (Leeds) showed drawings and photographs of a case of Congenital Deformity of the Skull. The deformity consisted of a groove surrounding the head at the level of the orbits anteriorly and the posterior fontanelle behind, so causing an unusual prominence of the frontal and occipital regions. The condition was thought to have been caused by the constriction of an amniotic band.—The President read notes of a fatal case of Phlegmasia Alba Dolens. The patient came under his care at the Liverpool Royal Infirmary three weeks after confinement. The labour was normal, but there was some rise of temperature during the early part of the puerperium, for which the uterus had been washed out. The right thigh and leg began to swell on the tenth day. When admitted to the infirmary there were frequent rigors and irregular high temperature and enormous enlargement of the right thigh and leg. The left thigh and leg were normal to all appearance. There was no vaginal discharge; the uterus was moveable, it was not much enlarged and was not tender. The streptococcus was found in the blood. Anti-streptococcic serum was used once or twice daily and produced temporary improvement, but the patient eventually died one month after admission—namely, seven weeks after her confinement. At the necropsy infarcts were found in the spleen and the right lung. The blood gave practically pure cultures of streptococcus but no staphylococci. The uterine veins were thrombosed and there was pus in the perivascular connective tissue. The left femoral vein and external iliac were full of pus extending up to the vena cava. The right femoral vein was thrombosed. It was interesting to note that during life there were no local signs of the suppurative phlebitis in the left leg, the pain and swelling being on the right side.

Newcastle-upon-Tyne Clinical Society.—The fifth meeting of the session of this society was held on March 7th, Dr. F. Hawthorn, the President, being in the chair.—A letter from the British Congress for the Prevention of Consumption to the society inviting delegates to the meeting in London on July 22nd was read.—Dr. W. T. Hall showed a patient in whom the Heart was found to be on the Right Side. A discussion followed as to diagnosis between transposition of viscera and fibroid phthisis drawing the heart to the right side, the majority deciding in favour of the latter condition.—Dr. F. O. Coley showed three cases of Nervous Disease. The first was that of a girl, aged seven years, with mitral regurgitation, partial hemiplegia, with previous albuminuria. In the second case a girl had pain and weakness in both legs and tenderness on pressure on both calves Walking was rendered unsteady, the child taking hold of anything that might be near for support There was no history obtainable of scarlet fever, diphtheria, or arsenic administration There was absence of both knee jerks In the third case, that of a boy, seven years old, there were incoördination of movements on walking, slight right facial paralysis, and exaggeration of the left knee-jerk. Previously walking had been impossible for a time — Dr W E Harker showed some Plague Bacilli obtained from the spleen of a rat killed on a plague infected vessel in which 13 cases of plague among the crew had taken place with 4 fatalities The macroscopical examination of the body of the rat showed œdema of the hind leg and the liver enlarged to three times, and the spleen to four times, the natural size —Dr G G Turner showed the specimen from a fatal case of Intussusception in a child on whom he had operated The child was collapsed before operation A lateral anastomosis was effected, as the condition was irreducible (even after death) Its position was just above the ilio cæcal valve

IPSWICH CLINICAL SOCIETY —A meeting of this society was held on March 14th, Mr James Hossack being in the chair.—Dr Stanley Hoyland showed a child with a Patent Foramen Ovale She was subject to cyanotic attacks from birth —Dr R W Brogdin showed (1) a young lad, 15 years of age, with a large, rapidly growing Bronchocele, and (2) a man with an Enlargement of the Lower End of the *Left* Femur and also of the *Left* Tibia The patient had been under observation for a year. His general condition was extremely good He was inclined to think that the swelling was sarcomatous —Dr Francis Ward showed (1) a Card Specimen and also Microscopic Slides from a case of Symmetrical Gangrene of the Toes in a young infant; and (2) a Specimen of Blood in a very advanced case of Hodgkin's Disease —Dr W A Gibb showed a rapidly growing Tumour of the size of a pigeon's egg which he had removed from the ear of a young lad He commented on the comparative rarity of these cases and the fact that it had followed an injury. It was probably fibro-sarcomatous in character —Mr Hossack showed a seven months' Anencephalic Fœtus —There was a discussion afterwards

Reviews and Notices of Books.

The Early Days of the Royall Colledge of Phisitians, Edinburgh By R PEEL RITCHIE, M,D Edin Edinburgh George P Johnston 1899 Pp 330

DR ROBERT PEEL RITCHIE, in his capacity of President of the Harveian Society of Edinburgh, delivered at the 114th festival of that society, in June, 1896, the address which has been expanded into the book now before us This fact explains why Dr Ritchie commences his book with a section entitled "William Harvey," which at first appears strange, seeing that Harvey died in 1657 and the Royal College of Physicians of Edinburgh was not founded until 1681 But, as Dr Ritchie shows, Harvey's "example and influence played no small part in the future founding of the Edinburgh College In Harvey's time there was no university or medical school in England, Scotland, or Ireland sufficiently well equipped to give a medical education worthy the name, and from 1617 various attempts had been made in Scotland to found a college of physicians Dr Ritchie thus sets forth the connexion of Harvey with the aforesaid attempts The first attempt was made in 1617, when James I (of England) revisited Scotland Two years previously Harvey had been chosen to teach and to lecture in London The second attempt was made in 1630 and two years previously Harvey's great work on the circulation had appeared The third attempt was made in 1657, shortly after Harvey's term of teaching had ended, and he had handed over the Lumleian lectureship to his intimate friend, Sir Charles Scarborough, whose help and influence contributed so greatly to the success of the fourth and final attempt The project of a College of Physicians was bitterly opposed by the universities, the town council, the chirurgeons, and the clergy, who though at this date mainly Presbyterian were no less opposed to the formation of the College than had been the Episcopalians in former years The opposition to the scheme seems to have been very skilfully overcome, mainly by Dr. Robert Sibbald who was afterwards knighted

How the matter was engineered must be sought for in the pages of Dr Ritchie's book, but we may say here that the protagonists were Sibbald, the Earl of Perth, Lord Melfort, and Sir Charles Scarborough, the King's physician The charter was finally obtained on Nov. 29th, 1681, being, appropriately enough, St Andrew's day, The claim of the College was not a very far reaching *one* The *proposers* of it were willing not to go in for teaching or for dissections, as did the surgeons, so that their candidates for incorporation might be able to *practise "flewbothomes"* But what the physicians did claim was "to have authority to supervise Medical Practice in the City, Suburbs, and *Liberties thereof, and to practise Medicine therein* shall only be permitted to those Physicians licensed by the Fellows of the College after trial and examination, and no one shall be admitted Socius until he has first obtained the licence to practise from the College' The charter, however, gave the College no power to examine Scottish graduates, but Scottish graduates had to have the licence of the College to practise

Within a period of just under three years from the foundation of the College four great reforms were carried through—namely, the compilation of the Edinburgh Pharmacopœia, the opening of a dispensary for the sick poor, the institution of regular examinations for the licence to practise, and the medical conferences at the College which were a form of what would now be called meetings of a medical society They were held monthly and the first discourse was delivered by the President, Sir Archibald Stevenson, "on the Polypus Cordis, to the great satisfaction of the Colledge" The Pharmacopœia, however, owing to opposition on the part of some of the Fellows, did not appear until 1699, a delay of 18 years In view of the controversy which has lately taken place concerning the title of the King it is interesting to note that the book was dedicated "Serenissimo Gulielmo II D G Scotiae, Angliae, Franciae, et Hiberniae Regi " There had, of course, previously only been one William of Scotland who began to reign in 1165

The moving spirits of the College were Dr Archibald Pitcairn and the four knights—Sir Archibald Stevenson, Sir Andrew Balfour, Sir Thomas Burnett, and last, though not least, Sir Robert Sibbald Dr Ritchie gives full biographical notices of these five eminent men, and with regard to Sibbald expended a great deal of time and trouble—albeit a labour of love—in ascertaining the date of his death and the place of his burial He died on August 9th, 1722, and was buried in "Phesdoes ground," Sunday, August 12th, 1722 Phesdo was John Falconer of Phesdo and his ground was in Greyfriars Kirkyard Dr Ritchie gives a picture of it as it now is—as dismal as that at the gate of which "Poor Jo" used to sit

No stone marks Sibbald's memory and one might well, we think, be subscribed for Dr Ritchie's book is full of interesting facts and is a monument of painstaking literary research The type, illustrations, paper, and general printing of the work are, as is to be expected in an Edinburgh book, excellent

Rectorial Addresses delivered before the University of Edinburgh, 1859-1899 Edited, with an Introduction, by ARCHIBALD STODART WALKER, M B, F R C P Edin Pp xxxvi -337 London Grant Richards 1900

DR STODART WALKER has been excellently well inspired to produce this volume which contains a 'baker's dozen" of addresses delivered before the University of Edinburgh by the distinguished men who during 40 years past have filled the office of Lord Rector. A mere list of the names of the contributors—which includes, among men less eminently distinguished, Mr. Gladstone, Mr. Carlyle, Lord Rosebery, and the first Lord Iddesleigh—suffices to challenge attention for the work. And the addresses themselves amply reward the attention. In every case the preparation of the address demanded an effort on the part of the speaker and the efforts of such men are not fruitless. The results are strangely various and probably no one will peruse them without surprise. For example, it is not a little strange to find Mr. Goschen discoursing with great effect upon the part which imagination plays in the prosecution of serious studies, although the reader rises from the perusal of his speech with the clear perception that if there is one field in which more than in any other a cruel experience forces home upon her pupil the need of entering by imagination into the thoughts, motives, and point of view of an opponent that field is politics. Most readers will probably take up this volume with the expectation that Mr. Gladstone's scholarly tastes and ready sympathies will make him *facile princeps* in the capacity of Lord Rector. But in this we think that they will for the most part own themselves mistaken. In "the work of the university as a great organ of preparation for after life," and again in "the place of ancient Greece in the providential order of the world," Mr. Gladstone found very congenial themes, in fact, themes that were congenial overmuch. There is something "donnish" about his addresses both in form and substance which makes the reader feel that they might quite fittingly have been delivered in a classroom and from a professorial desk. They want the breezy, open-air character which should accompany, should even be the characteristic feature of, utterances coming from those whom the outer world has absorbed and by absorbing withdrawn them from a direct share in the pre-occupations of a professed and cloistered student life. The feeling arises that a Lord Rector who too readily falls into line with the march of college thought and expression fails in the highest function of his office, which is to electrify the scholastic body by bringing into contact with it the negative pole of a personality charged with the influence of the great world outside. For a very similar reason Thomas Carlyle falls short of pre-eminence in this company. He also is too unworldly for the post. If we were called upon to adjudicate upon the comparative merit of these deliverances we should have no difficulty in singling out Lord Robertson's address, delivered in 1895, as being quite an ideal performance. And this involves no disparagement of Mr. Goschen's most admirable lecture on the uses of imagination to which we have already alluded, or of Lord Rosebery's pithy and elegant reflections on the highest forms of patriotism. Nor, again, do we under-value the sympathetic sentences in which Lord Moncrieff linked the present university with its own past. All these were admirable, each in its own way and every one, indeed, indispensable to the completeness of the collection considered as an anthology. But Lord Robertson, as it seems to us, struck the exact note with unrivalled precision in his address upon the public value and public duties of disciplined intellect. The subject was one which could only be dealt with effectively by a man who stepped aside for the purpose from the regular course of a public career. It was, therefore, peculiarly fit for a rectorial address and Lord Robertson's matter and manner both were equally admirable. Nothing, indeed, could have been more appropriate to the place and time than the delicate irony of his style or the robust tone of his admonitions. Take, for example, the following passage as a specimen of these qualities: "Of the mental habit which I describe as that of culture it is a characteristic not to overrate education itself. The tendency to do so arises from an incomplete view of the panorama of life—a blindness to all but those mechanical powers which grind out uniform results. Individual education—the education of school or of school and college combined—is strong, but other things are stronger—race, character, religion, sentiment, interest in the past, loyalty to persons, knowledge of the world, business capacity, above all, the vast accumulated funds of wisdom and guidance which are covered by the invidious term prejudice and the august name of authority. The appreciation of these elements, and especially of their due weight in a civilised community, is a sure criterion of cultivated intelligence."

We must not, however, indulge in quotation. The book, suffice it to say, affords a collection of most unusual interest of essays by representative men to which its editor has prefixed a thoroughly appreciative and very serviceable introduction.

Diseases of the Nose and Throat. By F. DE HAVILLAND HALL, M.D., F.R.C.P. Lond., and HERBERT TILLEY, M.D., B.S. Lond., F.R.C.S. Eng. Second edition. London: H. K. Lewis. 1901. Pp. 605, two Coloured Plates, and 80 Illustrations. Price 10*s.* 6*d.*

THE first edition published by Dr. de Havilland Hall was fully 50 pages less than this issue which has undergone a careful revision and enlargement, and the hand of Dr. Tilley is plainly seen in some parts, especially in the chapter on the Frontal Sinus.

As a handbook the volume as it stands at present is highly to be commended; it possesses the great merit of laying down with decision and directness the line of treatment to be adopted under various conditions, and with the aid of the reasonably comprehensive list of formulæ at the end will enable students and practitioners to recognise and treat most conditions of the throat and nose that do not necessitate the skilled hand of the specialist.

The theory of Bosworth that non-specific perforation of the septum is due to the erosion by dust, &c., is said here to be confirmed by the fact that cement factory hands are frequently thus afflicted and that they constantly introduce the finger into the nose and thus abrade and eventually perforate the structure. We do not think that this proves Bosworth's theory, but it materially aids in substantiating the view that constantly picking the nose is the cause, the irritating dust being merely the excitant. Ulcerative processes of the tonsil, we think, might receive more attention in the next issue. The illustrations are frequently too sketchy and not all of them, notably that of adenoid vegetations, true to life. With these exceptions and especially as a text-book the work deserves a wide popularity.

Text-book of Histology: including the Microscopic Technic. By Dr. PHILIPP STÖHR, Professor of Anatomy at the University of Würzburg. Third American, from eighth German, edition. Translated by Dr. EMMA L. BILSTEIN, formerly director of the laboratories of Histology and Embryology, Woman's Medical College of Pennsylvania. Edited, with additions, by Dr. ALFRED SCHAPER, Professor of Anatomy, University of Breslau, formerly Assistant Professor of Histology, Harvard Medical School, Boston, Mass. 301 illustrations. London: Rebman, Limited. 1901. Pp. 432. Price 14*s.* net.

WE have to welcome this, the third American edition of Stöhr's Handbook, translated without alteration from the eighth German edition, though still possessing the editorial additions to text and illustrations which appeared in the previous American issue. That the book is extremely popular, and deservedly so, both in Germany and among English-speaking students is shown by this rapid multiplication of editions. Professor Minot in his introduction describes the work as "combining scientific thoroughness with simplicity, conciseness, and clearness of exposition," and anyone using the book must admit that this description is fully justified. The most characteristic and strongest parts of the work are, perhaps, the technical appendices to the various chapters with their extremely practical directions for the obtaining and preparing of histological material. Regarding histology as a branch of anatomy the author rigidly confines himself to what may be actually demonstrated, and it is this probably which leads him to eschew all reference to the theories which have been invented to explain the appearances presented by striped muscle, and even to avoid any nomenclature of the varieties of leucocytes, though this may lead to some bewilderment of the student when he reads other works. The description of the liver is extremely good, though we miss any reference to Kupffer's cells. The descriptions and illustrations of the organs of special sense are also excellent.

The chapters on Microscopic Technic are found at the beginning and end of the volume, and the methods are most judiciously selected to combine simplicity with efficiency. The illustrations to the book have always been distinguished for their excellence, and in the present edition they are well and carefully reproduced. We notice a printer's slip on page 99 and a transposition of letters in Fig. 253, but the volume is generally well printed on good paper and reflects credit on the publisher. It would be difficult to find any book in English on histology which more fully meets the requirements of the student or even of the professional histologist than the work under review.

Laryngeal Phthisis, or Consumption of the Throat. By RICHARD LAKE, F.R.C.S. Eng., Surgeon Laryngologist, North London Hospital for Consumption; Surgeon, Metropolitan Ear and Throat Hospital; Surgeon, Royal Ear Hospital; Surgeon for Diseases of the Throat and Ear, Trinity College of Music. With 36 Illustrations, 21 of which are coloured. London: Rebman, Limited. 1901. Pp. 94. Price 7*s.* 6*d.* net.

THE importance of tuberculosis of the larynx is frequently under-estimated, for it is looked upon as a complication of pulmonary phthisis of no great moment, and as it is often considered to be peculiarly irresponsive to treatment it has been greatly neglected. Yet it may truthfully be said that of all the common concomitants of tuberculosis of the lungs laryngeal phthisis is the most important and its treatment at the present day is by no means unsatisfactory. Mr. Lake has done well to put before the medical public this interesting account of the present position of our knowledge of this subject, and it is obviously firmly founded on fact, for it is based on the observation of more than 300 cases. Whether tuberculosis of the larynx is ever truly primary is perhaps doubtful, though from *a priori* considerations it might reasonably be imagined that infection from the inspiration of the tubercle bacilli might not infrequently occur. In the vast majority of cases, however, it is distinctly secondary to tuberculosis of the lungs, and it appears from Mr. Lake's statistics to be especially liable to occur in those engaged in sedentary occupations and to be much more common in men than in women. The chief symptoms directly traceable to the lesion are hoarseness and dysphagia, and this latter symptom is in itself sufficient warrant for energetic treatment, for the pain is so severe as in many cases to interfere seriously with the taking of nourishment. This pain is chiefly due to the pressure on the tender epiglottis.

The section on Treatment is necessarily the most important, and Mr. Lake lays stress on the value of treatment directed to the improvement of the general health. As to local applications the author speaks very favourably of formalin and protargol. If the ulcerations are especially well marked the curette should be used early, but after every scraping formalin or lactic acid should be rubbed in. When the epiglottis is very extensively diseased its complete excision by means of the galvano-cautery snare is advised. A convenient form of cutting forceps devised by Mr. Lake is figured and described. The prognosis is always grave, but it has improved markedly with modern treatment. 21 coloured figures are given illustrating the various lesions of the larynx and a table is appended supplying some details of the 320 cases observed by the author.

Altogether the work is clearly and concisely written and it will serve as a useful introduction to an important subject.

LIBRARY TABLE.

Notes on Physiology. By HENRY ASHBY, M.D., F.R.C.P. Lond., Physician to the Manchester Children's Hospital, Demonstrator of Physiology, Liverpool School of Medicine. Seventh edition. London: Longmans, Green, and Co. 1900. Pp. 406.—Napoleon was accustomed to say that the history of France should either be compressed into one volume of moderate size or should be expanded into 20. The same may be said of physiology. The subject is so large that if only the leading points be mentioned a small volume is sufficient, but if details are to be discussed, differences of opinion pointed out, and the arguments for and against particular views fairly weighed, an encyclopædia is required. Dr. Ashby's little volume, which is well known to students, belongs to the former class of treatises, and as a rule is very well and intelligently written. Occasionally, however, space is occupied which might be better utilised. For example, in discussing the velocity of the flow of blood in the arteries Dr. Ashby remarks: "Various instruments are employed for this purpose, the *stromuhr* of Ludwig and the hæmatachometer of Vierordt being the principal." But the names of these instruments are unaccompanied by any description or illustration, and they must remain for the student mere names to be got up by rote without any corresponding idea of their construction or action. The cause of the varying swiftness of the current of blood in arteries of different calibre and under diverse conditions would have been more useful to the learner. The statements made in the several sections are correct though necessarily brief, and the volume will be found serviceable to the student during his first year of attendance on lectures and as an introduction to larger works.

An Index of Symptoms as a Clue to Diagnosis. By R. W. LEFTWICH, M.D. Aberd. Second edition. London: Smith, Elder, and Co. 1901. Pp. 278. Price 6*s.*—We are glad to see that a new edition of this useful little book has been supplied, and we see no reason to alter the favourable opinion which we expressed in these columns[1] as to the first edition. It undoubtedly is a most useful compilation, but, as in all compilations written by those who know for those who do not know, there are omissions to be found. For instance, under the head of "Jaundice" we find no mention of morbus cordis as a disease of which jaundice is a symptom. True, we see that Dr. Leftwich mentions "cyanotic liver," and this in its turn is most commonly due to morbus cordis. Again, under the head of "Rigors or Shivering Fits," paroxysmal hæmoglobinuria is not given, though an attack frequently commences with a most violent rigor. However, it is next door to impossible to write a book of this kind without making some omissions, and taken as a whole the book is wonderfully complete. The chapter on "Methods of Diagnosis" is particularly good, and Section 1018 should be in every practitioner's mind. It deals with the Fallacy of Perspective, by which the old general practitioner is apt to assume that his patient suffers from some common disorder while the advanced *student* and the junior consultant assume that he suffers from a rare disease.

---

[1] THE LANCET, August 4th, 1883, p. 212.

Mentone as a Health and Pleasure Resort. By D. W. Samways, M.A., M.D. Cantab. London: Bemrose and Sons, Limited. 1901. Pp. 104. Price 3*s.* 6*d.*—Dr. Samways confesses in his preface that there have been innumerable books written about the Riviera. During the last 30 years, however, few have been published owing possibly to the fact that in the case of visitors to that favoured land "the inclination to record their experiences and professions has died out under the soothing influence of the comfortable modesty which fears to attempt a task which others might better have done." His own book he wishes to be taken as an effort to overcome the undue domination of such modesty. Mentone, we think, needs no advertisement, and probably it was a much nicer place 30 years ago than now—that is to say, for people who like quiet combined with lovely scenery and sunshine. The two latter are still there, but probably most of the quiet has departed. In one important point the increase in size has been a benefit—namely, in improved sanitation. Anybody, however, about to visit Mentone will do well to read Dr. Samways's little book, for in it he will find a variety of information about a very charming place, and we are glad to find that the book commences with an interesting summary of the history of Mentone. The municipality has set an example which is to be commended to all municipalities. Within the limits of the commune neither piano-organs nor beggars are allowed. Would that London were so blessed. The book contains neither index nor table of contents, omissions which might be rectified in a future edition.

Service des Enfants Trouvés de Notre-Dame de Péra. By Dr. Spiridion C. Zavitziano. Constantinople: The Annuaire Oriental and Printing Company, Limited. 1901. Pp. 139.—Dr. Zavitziano, who holds a prominent position among the medical profession in Constantinople, has very decided views as to the up-bringing of children who have ceased to be under the protection of their parents and who have for some reason or other been transferred to the care of public authorities. He strongly opposes the practice of aggregating these children in large institutions of any kind, such as schools, asylums, hospices, or whatever name they may be called by, and he maintains that in default of parental care the only hope for these waifs lies in a system of boarding-out (*placement familial*); in the case of young infants the foster-mothers must be wet-nurses. He has had many years' experience of this work, for since 1889 he has been in medical charge of the foundlings maintained by the Greek Church of Notre-Dame in Pera, and in the present treatise, which is dedicated to the memory of his father, Constantine Zavitziano, a teacher in the Académie Guilford in Corfu, he gives full details of the methods adopted. From June, 1889, to the end of 1900 the number of children who came under his observation was 344 and his statistics show a mortality that compares very favourably with the mortality among foundlings in some other places.

The Law of Bills, Notes, Cheques, and I.O.U.'s. By James Walter Smith, Esq., LL.D. London: Effingham Wilson. 1901. Pp. 172 and Index. Price 1*s.* 6*d.*—This is one of Mr. Effingham Wilson's excellent series of Legal Handy Books and is a clear statement of the matters mentioned in the heading. It is a legal maxim that ignorance of the law is no excuse and it is therefore just as well for the average man to have some knowledge of the law dealing with exchange of money. This little book will help him to such knowledge.

Cordingley's Dictionary of Stock Exchange Terms. By W. G. Cordingley. London: Effingham Wilson. 1901. Pp. 96. Price 2*s.* 6*d.*—Stock Exchange terms are of necessity somewhat of a mystery to those who have not been admitted to the arcana of the "House," but Mr. Cordingley's work clears up the meaning of such terms as Bull, Bear, Contango, Grangers, and the like. We also find explanations of the meaning of Coras, Doras, Floras, and Noras, and we can imagine the Stock Exchange Musical Society having on its programmes a song with a chorus of "My Coras, My Noras," on the lines of Eugene Stratton's "Susie, my Toosie." On page 42, *sub. voc.* Floras, we find the following: "A term used ... . for the Three per Cent. Preferred Converted Ordinary Stock of the Caledonian Railway to distinguish them from 'Noras' which is used to represent the Deferred Converted Ordinary Stock." "Noras" is evidently a misprint for "Coras." We do not find, moreover, any explanation of the term "Agio," which is possibly not now used on the Stock Exchange, although it will be in the recollection of readers of "Vanity Fair" that poor old John Sedley after his failure used to talk in the dreary coffee-house about "agios and Rothchilds and Baring Brothers."

The Revised Twentieth Century Phrenology. By John William Taylor. Morecambe: J. W. and G. Taylor. London: L. N. Fowler and Co. Pp. 250. Price 3*s.* 6*d.*—This is a book which, according to an advertisement slip which we found within it, is "One of the Greatest Achievements of the Nineteenth Century!!!" We are glad to be told this, for we should never have thought it. Phrenology is a "science" in which we cannot believe. We wonder whether Mr. Taylor amongst other beliefs holds that the inhabitants of these islands are the Ten Lost Tribes? We are led to ask this, for on page 82 we find the following: "We are under no more obligation to teach the doctrine of *combativeness, destructiveness*, and so forth, because our predecessors believed in them than we are bound to eat grasshoppers, beetles, &c., because our Jewish ancestors feasted on these insects."

The A-1 Cookery-book. By "H. N. L." London: Simpkin, Marshall, Hamilton, Kent, and Co. 1901. Pp. 172. Price 2*s.* 6*d.*—Of cookery-books there seems to be no end, but there is no doubt that good cookery is conducive to good temper and therefore to good health. "H. N. L." has produced an admirable work so far as it goes. She does not profess to teach the higher branches, but her recipes are sensible, and if—it is a great "if"—a cook will only follow them by the light of common sense the result will generally be good. "H. N. L.," however, takes too much for granted—e.g., in her recipe for dry curry she talks airily about "one or two fowls, or rabbits, or pork, or any other tender meat." Now fowls and rabbits vary in size. For this dish she recommends a tablespoonful of curry powder. In the recipe for ordinary curry she lays down three tablespoonfuls of powder for one pound of steak, while in the recipe for curry powder (p. 146) she again recommends one tablespoonful of powder to the pound of meat. These three recipes taken together are confusing. The recipe for curried veal, again, has a different set of proportional parts given, being further complicated by the introduction of curry paste. Apart, however, from these little inaccuracies the actual directions for cooking are sound.

The Literary Year-book and Bookman's Directory, 1901. Edited by Herbert Morrah. London: George Allen. 1901. Pp. 415. Price 3*s.* 6*d.*—The edition of this book of reference for 1901 is constructed upon the model of last year, but it is hinted that certain modifications are shortly to be made. We do not envy the editor if one of these modifications should turn out to be the application of any rigid principle of selection to the directory of authors. Exactly whom the title of author may comprehend must always be a matter of doubt. The Society of Authors recognise for admission to their roll all who have written a book, and though the number of persons thus qualified for the title is very large we do not see how any other limits can be laid down.

Consequently we may fairly expect to see the portion of the "Literary Year-book" which forms "A Directory of Authors" grow in size, and that to such an extent as to preclude any idea of adding to the writers' names the titles of their best known works. In the case of well-known authors such an innovation would be unnecessary; in the case of the rank and file of authorship the information would not be widely interesting. Of the introductory essays which form the first part of the book the most readable are the editor's preface and summary of the past year's work and an essay on the book sales of 1900 by Mr. Frank Rinder. An article upon literary agreements is ill-informed. The pitfalls of the commission system and the chicanery possible under the half-profit system are not properly revealed in it. The royalty which an author might fairly expect to receive under the royalty system goes unmentioned. This is the more surprising because the publication of books in general is apparently not being discussed under the royalty system, but only that of novels and books of short stories, concerning which there must surely be an accepted principle or, at least, an ideal price for the author to aim at and the publisher to give—or to resist. Moreover, it is incorrect to speak of "all self-respecting books—books, that is, issued at the publisher's risk." It may be that a novel nowadays has to be very bad before it fails to obtain publication by one or other of the numerous publishing houses; but novels are only a branch of literature, and not the most important branch by a long way. Much admirable serious work which can have, and can be expected to have, only a limited sale is not produced at the publisher's risk, as all scientific societies and scientific men know. The utility of a good book of reference is impaired by the dissemination of the fallacies contained in this article.

Analytical Records

FROM

THE LANCET LABORATORY.

PURE GRAPE BRANDY.

(WILSON AND VALDESPINO, LIMITED, 5, NEW LONDON-STREET, LONDON, E.C.)

WE have drawn the attention of the profession on previous occasions to the importance of employing genuine brandy—that is, a matured grape spirit—for medicinal purposes. Undoubtedly corn, maize, or other cereal spirit differs very materially therapeutically from grape spirit; and differential chemical analysis offers to some extent an explanation. Matured wine spirit invariably contains volatile compound ethers which have their origin in the fermentation of the grape. These ethers are absent in corn spirit. The curious ethers of wine not only exceed the stimulating effects of alcohol, but they impart that fragrance and bouquet which are the especial characteristics of cognac (fin champagne)—characteristics which are singularly missing in the so-called cognac brandies now upon the market. The falling off in the quality of French brandy has, of course, arisen from the destruction of vineyards in the environment of Cognac by the phylloxera and the consequent recourse to the distillation of foreign wines and the blending of the spirit obtained therefrom with spirit derived from some source which, whatever it may be, is not the grape. There is no reason now, however, why the French growers should not re-establish their great reputation, and already parcels of brandy from the Cognac district, we learn, are being exported which are the produce of the newly planted vine. But only time can be relied upon to make the production mature. In the meanwhile excellent grape spirit, and therefore true brandy, may be obtained from Spain, where, though the phylloxera has similarly made an appearance, it has not been on such a disastrous scale. The specimen of brandy before us is a product of the Spanish grape and very excellent brandy it is, recalling very closely, if not indistinguishably, the characters of real old cognac. It contains a complement of the ethers of wine, as will be seen from the following analysis: alcohol, by weight 45·55 per cent., by volume 53·24 per cent., equal to proof spirit 93·21 per cent.; extractives, 0·366 per cent.; acidity reckoned as acetic acid, 0·012 per cent.; ethers in terms of alcohol, 3·63 parts per 10,000. The amount of ethers attains the maximum compared with a great number of brandies that we have examined. The spirit is excellent in all respects and is mature, fragrant, and mellow. It is said to be 12 years old. It cannot be too widely known amongst medical men that excellent brandy of this type may be obtained which is infinitely better than a great deal of the French brandy now upon the market. The time has come, it seems to us, when the word "brandy" should have a definite legal meaning, applying exclusively to spirit distilled from grape spirit. The word "cognac" of course is not necessarily an assurance of grape spirit, for throughout Germany that word is applied to all "branntwein," which it is confessed has a very remote relationship, if any at all, to vintages.

(1) EXTRACT OF BEEF; AND (2) SOLUBLE BEEF.

(ARMOUR AND CO., 8 AND 9, KING-STREET, WEST SMITHFIELD, LONDON, E.C.)

The extract of beef gave on analysis the following results: moisture, 19·99 per cent.; mineral matter, 22·10 per cent.; and organic matter, 57·91 per cent. The total nitrogen was 8·05 per cent., which, employing the factor 6·25, would represent 50·87 per cent. of proteids. Treatment with alcohol, however, showed 11·44 per cent. of meat bases. Further examination showed the presence of acid albumins, albumose, and some peptone. The preparation makes a very palatable "tea" which is both appetising and nutritious. The soluble beef gave the following results on analysis: moisture, 23·53 per cent.; mineral matter, 17·09 per cent.; and organic matter, 59·38 per cent. The total nitrogen amounted to 8·85 per cent., which, multiplied by the factor 6·25, would yield 55·31 per cent. proteid, thus accounting, with the exception of 4 per cent., for the whole of the organic matter. Alcohol only extracted 1 per cent. of the organic matters. The preparation contains albumins and albumose but no important quantity of peptone. It contains the nutrient rather than the stimulant principles of beef. Both preparations afford a palatable soup or "tea" of fresh, beefy flavour.

ROYAL INSTITUTION.—The following are among the lecture arrangements at the Royal Institution after Easter: Dr. Allan Macfadyen, six lectures on Cellular Physiology, with special reference to the Enzymes and Ferments; Professor Dewar, three lectures on the Chemistry of Carbon; Professor J. B. Farmer, two lectures on the Biological Characters of Epiphytic Plants; and Mr. J. Y. Buchanan, three lectures on Climate, its Causes and Effects. The Friday evening meetings will be resumed on April 19th when a discourse will be delivered by Professor J. J. Thomson on the Existence of Bodies Smaller than Atoms.

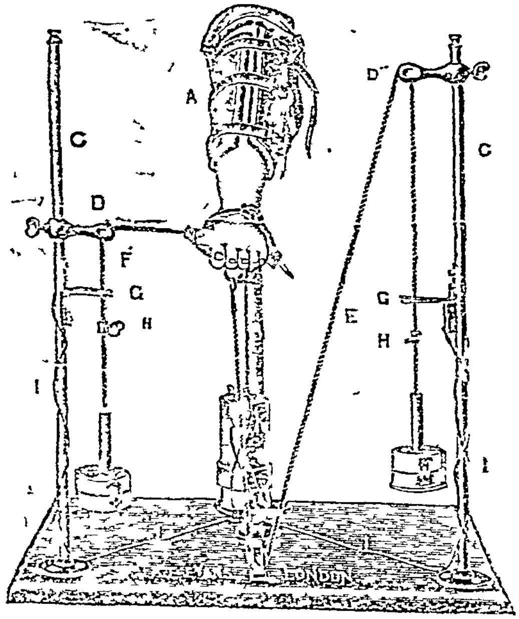
PORTHCAWL CONVALESCENT HOME.—The annual meeting of the subscribers to this institution was held on March 19th under the presidency of the Bishop of Llandaff. The report stated that 795 patients had been admitted during 1900, including 28 children, being 78 more than in 1899. The average number of days each patient remained in the home was 17 and the total cost for each, including salaries and general expenditure, amounted to 16*s.* 2*d.* per week. The new children's wing was opened last August at a cost of £2910.

New Inventions.

A MACHINE FOR APPLYING "RESISTANCE" EXERCISES IN DEFORMITIES OF THE FEET AND ANKLES.

I HAVE found the apparatus which is shown in the accompanying figure to be of great use in the treatment of all those conditions of the foot and ankle in which it may be desirable to strengthen any muscle or group of muscles, as in all forms of talipes and in flat foot and in-ankle. The apparatus consists of a padded trough A (supported by a pedestal B) in which the thigh and knee of the patient are securely strapped. Two side-pillars C, C, carry pulleys D, D, which can be shifted up and down as necessary and over which run cords E and F, each of which is attached to a weight W at one end and fastened at the other end to a strap which goes round the fore part of the patient's foot. In cases of varus or valgus in which it is desired to strengthen the abductors or adductors respectively, only one pulley and cord and weight are employed. That to the inner side of the foot is used for varus and that to the outer side for valgus. A third pulley fixed to the base-board of the apparatus is used for equinus when it is desired to strengthen the dorsi-flexor muscles of the ankle.

As it is difficult to induce young children to carry out these exercises, which they do not find amusing in themselves, I have added a dry cell K, and an ordinary electric bell with insulated wire circuits I, I, to the two side pillars.



Each circuit is broken at the metal contact-makers G, G, which take the place of the familiar bell-push. When the weight is lifted, G, G are acted upon by the adjustable stops H, H, which press the leaves of the contact-makers together and close the circuit, whereupon the bell rings and continues to ring until the weight is allowed to fall. The temptation to ring the bell and to keep it sounding at will is one which few children can resist and it becomes a treat to be allowed to use the exerciser. It is employed as follows. The patient is seated on a chair contiguous to the thigh-piece and the thigh and knee are securely fixed. The strap is secured round the front of the foot and the appropriate cord is fastened to it. The screw on the stop H is loosened and the stop is slid upon the cord until it reaches the desired spot where it is fixed. This should be in such a position that it will press against the contact-maker G, when the weight is lifted high enough and the desired amount of movement is done. In the figure the cord F is arranged as for a case of varus, while the cord E is arranged as for the treatment of equinus. If it be desired to use the machine to strengthen the calf muscles, as in a case of talipes calcaneus, both cords are to be used and both side pulleys raised up as high as they will go, but the middle pulley on the base-board is of course not used. It is in cases of congenital talipes and in flat foot that this exerciser is most useful. In infantile paralysis it is only useful to strengthen any muscles which are not palsied completely but only paretic.

The apparatus is well made and is supplied at a reasonable price by Mr. Albert Evans of Oakley-crescent, City-road, London, E.C.

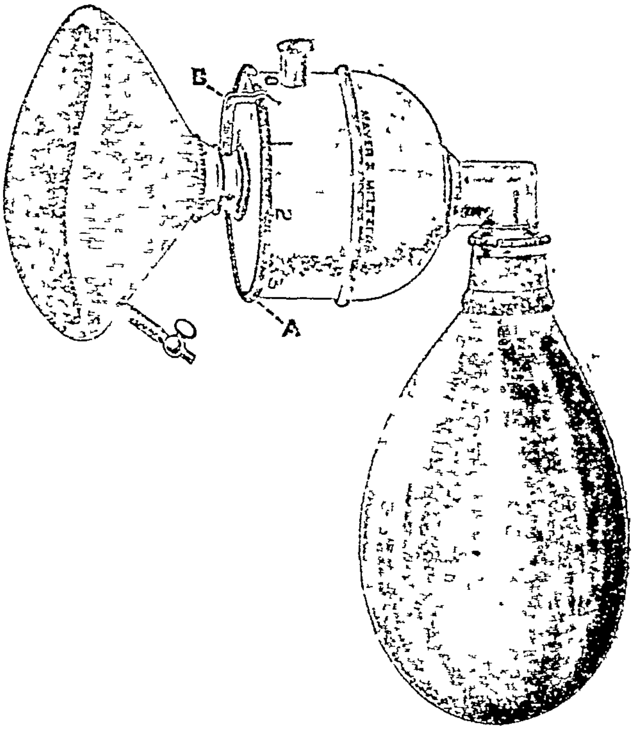
E. MUIRHEAD LITTLE, F.R.C.S. Eng.,
Surgeon to the National Orthopædic Hospital, London.

A HOSPITAL CHART.

WE have received from Messrs. Reynolds and Branson, Briggate, Leeds, a form of chart which has been in use in Dr. T. Churton's ward in the Leeds General Infirmary for two years. It shows the pulse and respiration rates in the same space by means of dots and connecting lines for the pulse and crosses for the respiration rate. The proportional figures (pulse : respiration as 4 : 1) are in parallel columns, so that an abnormal proportion is detected at a glance. The chief use of the chart is the instantaneous perception of the ratio existing between the temperature, the pulse, and the respiration. Spaces for recording the quantity and the specific gravity of the urine, and particulars of diet and drugs are ruled at the foot of the chart. With these additions its dimensions are eight inches by 10½ inches.

A MODIFIED CLOVER'S INHALER.

MANY who have been accustomed to administer ether with the ordinary Clover's inhaler will have had some experience of the inconvenient tendency which the reservoir has to become separated from the face-piece during administration. This is especially liable to occur when for some reason the patient has to assume the lateral or semi-prone position. I have had a slight modification made in the apparatus which prevents this detachment taking place. A projecting rim A is fixed round the lower margin of the reservoir. In this rim there is a slit opposite the O through which the upright portion of the indicator B passes. This portion of the indicator is curved so that it hooks over the rim as soon as the reservoir is turned on the face-piece. The reservoir is thus firmly fixed and cannot be separated from the face-piece until the indicator again points to O. The modification has been carried out for me by Messrs. Mayer and Meltzer of Great Portland-street, W., and can be adapted to the ordinary apparatus at a small cost.



CHARLES HERBERT THOMPSON, M.D. Dub.,
New Cavendish-street, W. M.R.C.P. Lond.

THE LANCET.

LONDON. SATURDAY, APRIL 6, 1901.

The English Census.

THE eleventh census of England and Wales has just been taken. For the last nine months active preparations with this object in view have been in progress at Somerset House, and so far as the mere counting of heads is concerned the procedure was practically completed on the evening of Monday last The alarm with which the earlier proposals to number the people of England were received by them and by Parliament has in these later days well nigh subsided under the influence of education. At the opening of the twentieth century we are not called upon to allay the fears which prevailed very generally a century since to the effect that an enumeration would be used as a basis for new taxation or even for conscription, or, worse still, that the numbering of the people would betray the inability of England to furnish a due supply of soldiers and sailors for the protection of our native land Neither are we asked nowadays to combat the opposite form of alarm—namely, that the people are increasing so rapidly as to outstrip the means of subsistence. With few exceptions people have at length come to realise the fact that they are not counted every ten years out of idle curiosity, but in order that the Government of the country may be carried on and laws framed according to indications which can only be known when the population of the various districts has been accurately determined. During the last few weeks the public have been carefully instructed through the agency of the daily press, and apparently from official sources, concerning the purposes for which a national census is required, and quite recently the Registrar General has published an appeal to the heads of families throughout the country for their assistance in rendering the present census as correct as circumstances will allow So that we may look forward to the census of 1901 being especially valuable because the returns are likely to be more reliable than any similar returns previously made

To our own profession, and especially to that branch of it which is engaged in the study and practice of State medicine, the accurate taking of a census is a matter of the very highest importance That this is the case will readily appear from the following considerations. In the first place, population is the only basis upon which rates of birth, sickness, and death can be calculated. England and Wales have been parcelled out into administrative sanitary areas, both urban and rural, over which areas elective boards are appointed with definite powers and responsibilities It is essential for the due performance of their statutory duties that these authorities should possess the means of measuring with a near approach to accuracy the prevalence from time to time of preventable sickness and also of mortality in the several areas within their jurisdiction. The Local Government Board, as regards particularly interested in securing an accurate return of the numbers living in the various (some 2000) sanitary areas of England and Wales, as well as in the registration districts and sub districts, which are more numerous still. The supervisory duties of the Board under the Vaccination Acts must be much lightened by an appreciation of the figures to be dealt with That the returns of the census should be as accurate as possible is matter of scarcely less concern to the Factory Department of the Board of Trade which, under the able guidance of a medical chief, is now doing admirable sanitary work among the workers in factories and workshops throughout the country. To that department it is essential that the fluctuations of the population engaged in certain injurious or dangerous trades should be accurately known between one census and another. The uses to which Dr WHITELEGGE has applied even the scanty information of this kind hitherto at his disposal will be appreciated by those who are familiar with the highly instructive reports for the last few years of the Chief Inspector of Factories

The recent extension to the country generally of the Act for the compulsory notification of certain dangerous infectious diseases is a cogent reason why the population of the various administrative areas concerned should be ascertained with great precision and even with greater precision than is possible with the help of only a decennial census A return to a sanitary authority or to the Local Government Board to the effect that a certain number of cases of some epidemic disease—say, of diphtheria—had occurred in a given district within a stated period of time would be meaningless without the complementary statement of population which alone enables us to form a judgment of the proportional prevalence of the disease And if the population is incorrectly estimated the ratio of sickness will, of course, be equally incorrect In point of fact, this recent extension of a most valuable sanitary enactment furnishes a strong argument for the establishment of a quinquennial census for England and Wales at least as complete as that now obtaining in the metropolis All competent authorities are agreed as to the necessity of a numbering of the people once in every five years, and there are many reasons for wishing that in the year 1906 the quinquennial census of London should be extended to the remainder of England and Wales

The Ethnological Significance of Burial Rites.

IT is well known that the excavations of M DE MORGAN and Professor FLINDERS PETRIE in the prehistoric cemeteries of Egypt are believed to have shown that one or more new primitive races inhabited the Nile valley of different ethnological relationship to the people we ordinarily speak of as the ancient Egyptians The reason for considering that these more lately discovered relics indicated new or alien races was the completely divergent method of sepulture, for in these extremely ancient interments, instead of the bodies being carefully preserved by mummification, they were deposited in three different manners, all apparently entirely opposed to mummification.

In one of these the skeleton was found with the knees drawn back to the sternum, the hands pressed to the face, and the whole skeleton compressed into the smallest possible dimensions and placed in a trench in the desert sand; in a second the skulls were removed from the spinal column, and the complete set of bones of one or more persons, bearing traces of having been scraped to remove the flesh and of having been submitted to some process tending to preserve them, were carefully packed together in a tomb; and in a third the body—perhaps the skeleton only—had been burnt together with some of the funeral offerings. These systems of sepulture, apparently so contrary to mummification as to indicate an entirely different race of people, have now been instanced by M. BAILLET, in an article in the Journal of the French Archæological School at Cairo, as proving a similar idea for the preservation of the defunct to that which later produced the perfection of mummification as known to the historic Egyptians.

M. BAILLET'S method of reasoning, based entirely upon the statements of the most ancient and therefore least corrupted religious texts, is well founded and is interesting to all studying the history of mankind. M. BAILLET, after considering the three prehistoric burial systems, concludes that the methods of all were produced by the pre eminent desire to preserve and to perpetuate as far as possible the remains of the defunct. In the first case the placing of the compressed skeleton, after removal of the flesh, in the smallest possible compass in the desert sand, in some cases after anointing the bones with bitumen or such like substances, tended to prevent the remains from being disturbed by beasts of prey who would have sought it for the flesh. In the second case, where the bones were separated, the object in view was the same, only more fully carried out. The skeleton having been broken up more entirely to remove all particles of flesh and sinew, the interior contents of the skull, which might have given rise to putrefaction and hastened the decay of the bones, were got rid of, and the bones completely anointed or filled with bitumen or resinous substances. In the third case he points out that the incineration did not take place upon a funeral pyre in the open air, in which case the remains would have been dispersed and lost, but in a confined tomb where the ashes remained carefully preserved as long as the sepulchre remained intact. At this point it may be noted that mummification itself was not really a preservation of the flesh of the deceased but practically a removal of parts and a desiccation of parts, for, as HERODOTUS tells us, in its perfect attainment the result achieved was the dispersion of the flesh, leaving practically nothing but skin and bones. As is well known, all the viscera as well as the contents of the skull were removed as preliminaries to embalmment because of the increased tendency to putrefaction if they remained, and the Egyptian rituals for mummification themselves state distinctly that it was to prevent putrefaction that the process was carried out. The great sacred work known as the "Book of the Dead" also shows this: chapter 14 is entitled "That the body may not be corruptible"; chapter 71 is entitled "To repulse corruption"; chapter 173 is entitled "To prevent any damage to the corpse and to preserve the flesh and bones"; chapter 154 treats "of preventing the decomposition of the corpse." Beyond this texts in the "Book of the Dead" tell that by mummification more of the cadaver is to be preserved than formerly, thus indicating a recollection of the inferior, more primitive processes and showing the advance that had taken place in the art of mummification. The second book speaks of the deceased as arriving in the next world having had his flesh embalmed so that his actual body will not decay, "*his companions have put aside his flesh*; his flesh will not become evil"; and again addressing the defunct it says, "Thy flesh accompanies thee, there is no corruption for thee, no vermin; thy head and neck have not been broken; thy tongue has not been removed nor thine eyebrows shaved; no evil has been performed upon thy cadaver which shall not now perish." The expression in italics is quite contrary to the assertion as to the preservation of the flesh, from which M. BAILLET argues that it is a piece of a rubric of the older version of the text when the flesh was removed and the skull and the bones were separated, and that the scribe, not understanding its meaning, had permitted it to remain part of the volume which vaunted that these acts had been dispensed with. Many texts show that the Egyptians attributed their success in at length preserving the semblance of the body by mummification to the use of baths and unguents which dissolved or dried up the decomposable constituents, and also to their marvellous system of bandaging with wrappings prepared with certain preservative solutions. To the populace the priests gave out that the flesh of the departed was preserved, but to the initiated it was known that the majority of its constituents were dissipated by the processes which it underwent, hence in the same inscriptions upon the tomb pyramid of PEPI we have such apparently contradictory assertions as "the bones of PEPI are as of iron, the flesh of PEPI as the indestructible stars," and again, "deliver the defunct from the flesh that was in him."

All the funeral processes of Pharaonic times had but one object—to insure the non-decomposition or purity of the body, because by that means, it was imagined, only could the spirit's existence be perpetuated. The incense and natron offerings, fumigations, and libations at the annual funeral feasts were all but copies of the provisions that had been made after death for the preservation of the corpse and were intended annually to renew their efficacy. Even the sarcophagus was but a replica of the great natron bath in which the body had been steeped. Before these means of obtaining the object of preservation had been perfected the dryness of the desert sand had been relied on and the body had been compressed to preserve its form intact. Then preservation had been attempted by cutting or burning the tissues away, the remnants being carefully anointed and covered with resin or bitumen. In course of time a way was invented of destroying the corruptible matter without damaging the external form. The skull was embalmed through a fracture in the ethmoid bone instead of being decapitated. The viscera were removed to prevent decay, but were placed in four canopic vases in the tomb. The flesh withered away beneath the skin which was protected by bandages, the thickness of which restored apparently the proper proportions of the body. All through the ages of Egyptian history the aim of funeral rites was similar, so that the procedures may have been the actions of but one single people, that mysterious race of which Professor OWEN concluded that they may have been autochthones of the Nile valley

A Case for Publicity.

THE financial position of most of the London hospitals is as a rule insecure That is to say, the funded property produces far less income than is required to meet the expenses to which the institution is yearly put, and the balance has to be defrayed by voluntary contributions, reaching the charity either directly from subscribers and testators, or indirectly in the shape of grants from funds such as the Metropolitan Hospital Sunday Fund, the Hospital Saturday Fund, and the Prince of Wales's Hospital Fund for London Moreover, as the population of London increases the stress put upon the hospitals becomes greater, while the lists of subscribers do not lengthen in proportion This being so it is of the utmost importance that a hospital should not dispose of any valuable property which it may possess, particularly if that property is of a nature that is bound to appreciate, without very full and free discussion having taken place upon the matter

We are led to these remarks by three letters which have recently appeared in our columns—namely, one from "A Governor of the Hospital," which was published in THE LANCET of March 9th, p 739, another from "Hospital Governor," in THE LANCET of March 23rd, p 893, both dealing with the affairs of the Royal Orthopædic Hospital, and a third in THE LANCET of March 30th, p 971, from the secretary to that institution This hospital, as may be known to some of our readers, occupies a very valuable site, having a frontage both to Oxford street and to Hanover-square The site is the freehold property of the charity It appears that the Managers of the Prince of Wales's Hospital Fund for London at one time recommended the sale of the site, and the committee of the hospital in June, 1899, having the same view, wished to sell the property for the sum of £28,000 The subscribers to the charity, however, disagreed with the committee, who were defeated upon the question being put to the vote mainly by the efforts of Mr H H. MARKS, the present chairman of the hospital Mr MARKS, it is alleged, acknowledged that he obtained his majority by votes specially created for the purpose of resisting the scheme for selling the site of the hospital The committee accordingly resigned and a new committee was formed with Mr MARKS as chairman This committee, at a meeting held on Feb 18th, 1901, received full permission to sell the site and to buy another A description of the meeting will be found in THE LANCET of Feb 23rd, p 591 On March 14th a meeting of the committee was held at which, according to the letter from "Hospital Governor," an offer of £37,700 for the site was brought forward without previous notice. "Hospital Governor" gives an account of the meeting the accuracy of which is challenged by the secretary of the hospital The secretary does not state in detail with what statement he finds fault, but we do not understand that the essential fact that it has been voted by the committee to accept the offer of £37,700 is denied Now £37,700 represents £1300 at 29 years' purchase and is a good price to obtain for land in most places But Oxford street and Hanover square afford positions of simply incalculable value At the meeting on Feb 18th it was said that the value of the site was £45,000, or £1500 at 30 years' purchase, and every decade the property will continue to rise in value—if precedent is to be relied on in the least Mr MARKS's position requires explanation Having as we understand admittedly, turned out a committee which was preparing to sell the site of the hospital for £28 000, he is now, as chairman of the committee, ready to sell that site at £7300 below a valuation which has been attributed to himself, and that without bringing forward any reasons to show why the sale is necessary at all For surely an asset of increasing value should not be sold without an urgent reason Something must have occurred to change Mr MARKS's mind, for quite recently, we believe, the hospital was put into thorough sanitary repair at a cost of some £2000, an expense that surely would not have been incurred if it was intended to evacuate the building in a few months.

We are in no way wishful to dictate to the hospital authorities how they should dispose of their property, but we think that without doubt the matter deserves thorough ventilation and that the disposal of such a valuable site should not be decided upon hastily It may not be necessary, or even financially sound, for a charitable institution to occupy a site which so far as either frontage is concerned might be filled by first-class business premises, but surely it is the duty of those responsible for the administration of the charity to see that a good bargain is made if the premises are vacated We do not know where the authorities propose to obtain their new site but presumably it would be somewhere where land is less expensive Surely this could be managed without the sale of their valuable freehold by borrowing money, even if it is deemed advisable to leave the building with which they have been long associated and upon the sanitary needs of which they have just spent a large sum We cannot see that there is any hurry in the matter The committee are not pressed for time in their anxiety to catch the top of the market, for freehold property in Oxford-street is not in the least likely to go down in value, while the offer which they are preparing to accept is 15 per cent below the sum which has been estimated as the right sum "Hospital Governor" says that an offer has been made to lease the Hanover square end of the property at £1200 a year If this is so, why have not this and similar alternatives been discussed? Discussion is all that is wanted The committee are acting, it is understood, in accordance with the views of the Prince of Wales's Hospital Fund for London The public has a right to know upon what those views are founded, for it is the public who will be painfully pleaded with to find the income if the Royal Orthopædic Hospital squanders its capital The secretary of the hospital protests against the premature discussion in the press of business under conduct by hospital committees We join in the protest, only asking, When is discussion premature? Surely it will be too late for practical purposes to debate the policy of selling the site of the hospital after the sale has been effected

Annotations.

"Ne quid nimis."

STATE LUNATIC ASYLUMS IN INDIA.

THE Secretary of State for India has sanctioned a scheme for five large central asylums for the insane in India. Hitherto in India there have been only a number of small asylums under the care of the civil surgeons of the stations where they were situated, who make, of course, no claim to special familiarity with psychological medicine, and whose time is fully occupied by the ordinary claims of their position. We trust that men of proved knowledge in psychological medicine will be appointed to the superintendence of these asylums; and that it is the intention of the Government to attract suitable candidates is shown by the fact that special rates of pay are to be given. The salaries will range from 600 to 1400 rupees per month, so that the pay will be about 50 per cent. higher than full regimental pay in the Indian Medical Service, with a house thrown in and leave to conduct a private consulting practice. The appointments will be open to, though not restricted to, officers of the Indian Medical Service, but inasmuch as a knowledge of native language and customs will be of immense value to the superintendents of the new asylums it is probable that the appointments will fall to members of the Indian Medical Service who can prove their fitness for the berths. The existence of highly-paid scientific appointments like these should induce young men with a taste for psychological medicine to enter the service and those who have had the practical experience of a sojourn of a year or two in a first-class asylum at home should have a strong claim for an appointment. As time goes on the number of these asylums will probably increase and they may become valuable clinical centres, for in India at the present moment there is not a single private asylum or any facility for learning psychological medicine. The five new asylums will be situated at Bishanpur for Bengal, at Agra for the North-West Provinces, at Lahore for the Punjab, at Poonah for Bombay, and at Madras. The asylum at Lahore has been completed, that at Agra is under construction, while the existing buildings at Madras, which are very good, will be utilised.

MEDICAL AND SURGICAL APPOINTMENTS TO THE KING.

A FURTHER list of medical and surgical appointments to the King appears in the *London Gazette* of March 29th:—To be Physicians in Ordinary to His Majesty: Sir William Henry Broadbent, Bart., K.C.V.O.; Sir James Reid, Bart., G.C.V.O., K.C.B.; and Sir Francis Laking, K.C.V.O. To be Physicians Extraordinary to His Majesty: Surgeon-General Sir Joseph Fayrer, Bart., K.C.S.I.; Sir Richard Douglas Powell, Bart., K.C.V.O.; Sir Edward H. Sieveking, Sir Felix Semon, and Dr. John Lowe. To be Physician to His Majesty's Household: Sir Thomas Barlow, Bart., K.C.V.O. To be Honorary Serjeant-Surgeon to His Majesty: Mr. Frederick Treves, M.V.O. To be Honorary Surgeons in Ordinary to His Majesty: Mr. Thomas Bryant, Mr. Alfred Downing Fripp, M.V.O., and Mr. Rickman John Godlee. To be Surgeon to His Majesty's Household: Mr. Herbert William Allingham. To be Surgeon-Apothecary to His Majesty and Apothecary to His Majesty's Household: Sir Francis Laking, K.C.V.O. To be Honorary Surgeon-Oculist to His Majesty: Mr. George Anderson Critchett. To be Honorary Surgeon-Dentist to His Majesty: Mr. Henry Bell Longhurst. To be Dentist to His Majesty's Household: Mr. Edwin Thomas Truman. To be Honorary Anæsthetist to His Majesty: Dr. Frederick William Hewitt. To be Chemist and Druggist to His Majesty: Mr. Peter Wyatt Squire. To be Surgeons-Apothecary to His Majesty's Household at Windsor: Mr. William Fairbank and Dr. William A. Ellison, jointly. To be Surgeon-Apothecary to His Majesty's Household at Sandringham: Dr. Alan Reeve Manby, M.V.O. To be Honorary Physicians in Ordinary to His Majesty in Scotland: Sir William Tennant Gairdner, K.C.B., and Dr. George William Balfour. To be Honorary Surgeons to His Majesty in Scotland: Dr. Patrick Heron Watson and Dr. Alexander Ogston. To be Honorary Surgeon-Oculist to His Majesty in Scotland: Dr. Douglas Argyll Robertson. To be Physicians in Ordinary to His Majesty in Ireland: Sir John Thomas Banks, K.C.B., and Dr. William Moore. To be Honorary Surgeons to His Majesty in Ireland: Sir Philip Crampton Smyly and Sir William Thomson. To be Honorary Surgeon-Oculist to His Majesty in Ireland: Dr. Charles Edward Fitzgerald. It will be remembered that in our issue of March 2nd we published the following list:—To be Sergeant-Surgeon in Ordinary to His Majesty: Lord Lister. To be Honorary Sergeant-Surgeons to His Majesty: Sir William MacCormac, Bart., K.C.V.O., and Sir Thomas Smith, Bart. To be Honorary Physicians: Dr. D. McEwan, Inspector-General (retired); Sir James J. L. Donnet, K.C.B., Inspector-General of Hospitals and Fleets; Sir John Watt Reid, K.C.B., Director-General of the Medical Department of the Navy (retired); Dr. A. B. Messer, Inspector-General of Hospitals and Fleets (retired); Dr. H. C. Woods, M.V.O., Inspector-General of Hospitals and Fleets. To be Honorary Surgeons: Sir James Jenkins, K.C.B., Inspector-General of Hospitals and Fleets; Mr. Timotheus J. Haran, Inspector-General of Hospitals and Fleets; Sir James N. Dick, K.C.B., Director-General of Medical Department of the Navy (retired); Dr. William H. Lloyd, Inspector-General of Hospitals and Fleets; and Dr. Alfred G. Delmege, M.V.O., Deputy Inspector-General of Hospitals and Fleets. This, we believe, completes the list. Many of these gentlemen have previously held similar appointments either to the King (when Prince of Wales) or to her late Majesty Queen Victoria, while some of the appointments are new. The position of Honorary Anæsthetist to His Majesty, which has been given to Dr. Hewitt, is, we believe, an entirely new office created by His Majesty.

THE SCIENTIFIC PRODUCTION OF MILK ON A LARGE SCALE.

WE have already alluded to the satisfactory steps which are being taken in this country by large dairy companies to supply not only pure and sterile milk but milk also standardised for special purposes. Milk as a source of disease is well known and its chief danger is its extreme liability to become infected with the tubercle bacillus. The conditions under which the production of milk is carried on are gradually passing from the old rule-of-thumb method to the scientific methods of the present day. This change, it may be remarked, does not only secure the production of milk of a non-infective character but it has also brought greater economy into the methods and results. One of the largest examples of an enormous milk-supplying station in which the production of milk is dealt with scientifically on the score both of hygiene and economy is the establishment of Herr C. Bolle in Berlin. From particulars recently furnished to us by Sir Otto Jaffe, who has studied the question of milk-supply in a number of towns at home and abroad, we learn that Herr Bolle started his business in the year 1871 when he distributed 500,000 gallons of milk, whereas at the present day he supplies milk at the rate of 7,000,000 gallons to about 50,000 families. The milk is all sent out from one central station. The firm supply milk, cream, milk from a special farm for infants, sterilised milk, kefyr, machine-skimmed milk, butter-milk, butter, and cream cheese In this great central station there are a bacteriological laboratory, a chemical analytical laboratory, and a chemical technical laboratory. In 1899 over 30,000 tests were made in the chemical analytical laboratory alone, and over 1500 guinea pigs were used in the bacteriological laboratory, mostly for tests of tuberculosis In the chemical technical laboratory experiments are made upon the by-products of milk which are utilised. Special officers are retained for supervising the 130 farms with their 14,000 cows which supply the central establishment, and the duty of controlling and observing the health of the cows is in the hands of four veterinary surgeons. Till a few months ago the firm passed the greater part of the milk which they collected from the various farms through filters of sterilised gravel which freed the milk of many of its impurities, destroyed many micro-organisms, and tended to keep the milk sweet. Within the last few months, however, they have made arrangements for using an improved Pasteurising process for the whole of the milk which they receive with the exception of that which comes from one of their own farms, and they consider this to be one of the most important improvements that they have adopted since the opening of their establishment They maintain that this process interferes neither with the taste nor with the chemical composition of the milk, but destroys any pathogenic microbes such as those of diphtheria, scarlet fever, typhus fever, and particularly tuberculosis. The entire establishment, which includes butter, cream, and cheese manufacture on similarly scientific lines, covers more than five and a half acres The steam engines develop about 400 horse power. The cooling plant is able to produce about 20 tons of ice a day. It is stated that the rapid growth of this industry has been accompanied with an excellent effect upon the general milk-supply of Berlin; in 1879 14 1 per 1000 of the samples investigated by the police authorities were adulterated and in 1886 only 3 6 per 1000 The infant mortality per 100 living born children in 1871 was 30; this fell in the next 10 years to 27 1 and in 1899 it fell to 23·4 Even if it is also admitted that many other influences have contributed to the decrease of infant mortality undoubtedly the improved milk supply has had much to do with it The facts speak eloquently in favour of the scientific preparation and supply of milk and milk products

THE SALE OF "DRINK" TO CHILDREN.

MR CROMBIE spoke truly when he stated that his Bill to prevent the Sale of Intoxicating Liquors to Children has the approval of the country. The tendency of popular opinion with regard to this question has been frequently manifested in the press and on the platform Once more it has found emphatic expression in a vote on the second reading of this Bill passed by a substantial majority of 318, which represents the collective decision of all parties in the legislature. This measure, it may be added, is the result of no sudden movement of the national mind. A Royal Commission has already proved that the public house exercises a mischievous influence on young children sent thither to fetch liquor and that drinking habits are thus engendered even at so early an age The only argument adduced so far in favour of this practice appears to be that it suits the convenience of working parents The contention obviously rests on the slightest foundation The publican and the workman have under almost any circumstances an unequalled facility in accommodating one another. Convenience of this kind attends every hour of the working day and it acts too often as a serious impediment in the course of business Less of such convenience would prove rather a gain than otherwise In any case it cannot be allowed to stand as a reason why children—who, as Mr. Crombie reminded us, constitute the hope of the country in its international struggle for existence—should be contaminated by a ruinous habit at the very outset of life Amendments in committee may be looked for, but we trust that they will not be allowed to impair the vitality of this wholesome and useful measure

A MEDICAL MAN'S GENEROUS LEGACY.

THE Corporation of Portsmouth has just received under the will of the late Mr George Scale, a sum of £20,000 to provide annuities for the blind. Applicants must be over 30 years of age and necessitous The amount of each annuity is fixed at £30, so that at least 20 blind persons will benefit by Mr. Scale's bequest Mr. Scale was for many years, as was his father before him, a medical practitioner in Portsmouth where he practised in the Commercial road. The father died some 20 years ago and the son, who died recently, retired from practice in 1872 owing to blindness Since his retirement he has resided at Emsworth. He never recovered his sight but his bequest shows that he was ever mindful of those who were afflicted in a like manner

THE RICHMOND WATER-SUPPLY.

THE Town Council of Richmond, Surrey, have always been very anxious to have an independent water supply and they have taken a great deal of trouble and incurred great expense in the matter At the time of Lord Llandaff's Commission the council protested that their district ought not to be placed under any new body which might be entrusted to carry on the duties of managing the water supply of London Last year Mr. Mansergh was asked to make a report as to the nature of the existing works of the corporation and as to their efficiency, and he was further requested to make suggestions for the improvement or enlargement of the plant, and to recommend the best available method for increasing the supply of water The present works he found to consist of wells and of a brick tank situated in Petersham meadow Of the wells one is sunk through the London clay into the chalk which is reached at 254 feet below the surface From this well a boring which varies in size from two feet to seven inches passes downwards to a total depth of 1446 feet Another well which has a depth of 320 feet passes for 30 feet into the chalk. From the bottom of this well headings have been driven to the well previously described and in various other directions These headings are six feet in height, four feet six inches in width, and their total length amounts to no less than 10,400 feet In addition to this borings have also been made below the headings in many places where it was hoped that fissures might have been found In spite of all this work the quantity of water which has been obtained has not exceeded 260,000 gallons per day With a view to discover the cause of the deficiency of the water and to what extent the chalk in the district around was similarly depleted Mr Mansergh made a series of inquiries in regard to wells which existed in the neighbourhood. It was found that in the case of a well situated two miles to the north of Richmond the water level had sunk about 68 feet during the last 50 years In the case of another well three miles to the north east the level of the ground water had sunk 72 feet since the year 1877. Records were given of six wells and in every case the water-level had sunk to some extent. Mr. Mansergh gave it as his opinion that the cause of the lowering of the water-level at Richmond was due in part to the pumping which had taken place there; that from the chalk around also an excessive amount had been removed by pumping; and that the amount of the rainfall during the last few years had been insufficient to make good the amount taken. The supply from Petersham meadow is derived from a brick tank 15 feet in depth into which the water from the meadows is conducted by means of a double line of stoneware pipes which are laid open-jointed and covered with a layer of screened gravel and sand. The water from this source has been open to the suspicion of pollution and a specimen of it was therefore sent to Dr. Klein for analysis. Amongst other things his report stated that he found specimens of proteus vulgaris and bacillus coli. In summing up the results of his examination Dr. Klein said that the water was not in a satisfactory state and that it contained a fair number of microbes which must be considered as having been derived from the surface soil. According to a report in the *Thames Valley Times* of Feb. 13th, 1901, Dr. Klein, in answer to further questions which had been addressed to him by a member of the Richmond Town Council, said that even this water was better than that supplied by the Southwark and Vauxhall Water Company. The state of the water supplied from Petersham well has led Mr. Cockram of Richmond to address to us a series of letters with regard to the pollutions which he considers are a great source of danger in the water obtained from the meadows. We are informed that many anglers are accustomed to assemble on the banks of the Thames between Buccleuch House and Ham House, and that they spread decomposing animal and vegetable matter on the towpath and act generally in a manner which is liable to cause pollution to the surface of the meadow itself. It seems that this part of the bank of the Thames has a peculiar fascination for anglers, and the *Fishing Gazette* often contains somewhat long reports in regard to their proceedings. Prizes are given to the most successful anglers and occasionally their number is to be reckoned by hundreds of gentlemen who are stationed at intervals over a course of nearly three miles. An enormous number of prizes is given and we have been favoured with a list of those which were to be awarded as the result of a monster competition held towards the end of last year. On this occasion the *Fishing Gazette* stated that the rain was "almost intermittent," but we are not quite clear as to whether this was a favourable climatic condition for the sport. Angling has always been a favourite pursuit with a great many people who live in the East End and in other parts of London, and it is the only out-of-door recreation which is enjoyed by a very large number of people. It is an extremely good thing for them that they are able to obtain healthy amusement in this way at a very small cost, for the railway companies convey them at specially cheap rates. It is to be hoped that in future the anglers will take care not to do anything which may cause danger of pollution to the Petersham meadows, and we have no doubt that should our contemporary the *Fishing Gazette* point out to its readers the great hardship which some anglers have inflicted on the people of Richmond they will make arrangements which will obviate the possibility of any future annoyance.

THE NITROPROPIOL TEST FOR SUGAR.

In a recent number of the *Munchener Medicinische Wochenschrift*, Dr. Franz von Gebhardt of Budapest describes this test for sugar in the urine by means of orthonitrophenylpropionic acid. The reduction of this substance by sugar was pointed out by A. Baeyer in 1880.[1] Messrs. Teusch of Ehrenfeld, a suburb of Cologne, have for some time been supplying tablets in which orthonitrophenylpropionic acid is compressed with sodium carbonate. The test by means of these tablets was described in The Lancet of Feb. 17th, 1900, p. 471. According to these makers the method of testing for sugar is to dissolve a tablet in 10 cubic centimetres of water, add 10 drops of the saccharine solution or urine to be examined, and boil the whole gently for from three to four minutes. If sugar be present the entire solution assumes an indigo-blue colour, and, if it is allowed to stand, indigo insoluble in water separates out and collects at the bottom. At one of the clinics connected with Budapest University, Dr. von Gebhardt has for a considerable time used nitropropiol tablets in testing for sugar. Instead of following the method recommended by the manufacturers, he does not begin by dissolving the tablet, but he takes from 10 to 15 drops of the saccharine solution or urine to be examined, adds 10 cubic centimetres of distilled water, and then the tablet, and warms the whole gently for from two to four minutes. If sugar be present the solution becomes at first greenish and then dark indigo blue. Dilution of the saccharine solution keeps the reagent always in excess with respect to the sugar, otherwise the reduction with formation of indigo blue does not occur, but indigo white is formed instead and the solution remains colourless. If the proportion of sugar is very small the fluid to be examined need not be diluted. It often happens that the blue colour does not come out with sufficient clearness, in which case he adds chloroform and shakes; the chloroform takes up the indigo and forms a blue layer at the bottom. Dr. von Gebhardt has satisfied himself by many experiments that sugar is the only constituent of the urine that gives this blue reaction. The colouring matter of the bile, uric acid, albumin, blood, phosphates, kreatinin, and glyconic acid do not produce the effect. The reaction succeeds with saccharine urine in presence of minute amounts of albumin, pus, or blood, but the boiling must be longer than in the absence of these. If the proportion of albumin is larger it must be removed by shaking with chloride of sodium or chloroform before the application of the test. The following drugs taken by persons whose urine is free from sugar do not cause the urine to give the reaction: benzoic acid, chloral hydrate, carbolic acid, guaiacol, iodine, rhubarb, salicyl compounds, senna, and turpentine. As regards the sensitiveness of the reaction 30 milligrammes of dextrose dissolved in 100 grammes of water and not further diluted gave a blue colouration; 25 milligrammes in the same quantity of water gave a green colouration instead of blue; 50 milligrammes in the same quantity of water gave a reaction even when 10 drops of the solution were added to 10 cubic centimetres of water. Dr. von Gebhardt further points out that the reaction is simple, rapid, and inexpensive, that it requires no chemical except the tablets, and that it may be performed with only a few drops of urine.

THE BOSTON RURAL DISTRICT COUNCIL AND ITS MEDICAL OFFICER.

The position of a medical officer of health to a small district is not altogether a pleasant one. He is almost sure to come into conflict with sundry existing interests, that is to say, if he does his duty, and the owners of the said interests not unnaturally feel hurt. The Boston (Lincolnshire) Rural District Council held its monthly meeting on March 16th and decided by a majority of one vote to advertise for a medical officer, the term of appointment of the holder, Dr. Arthur Tuxford, expiring on March 25th. Mr. Clarke, who proposed that the post should be advertised, explained that he, with many more, was not satisfied with Dr. Tuxford, and Mr. Brown seconded the motion. Mr. Eley, however, moved as an amendment that Dr. Tuxford should be reappointed, and Canon Stafforth, in seconding the amendment, pointed out that although Dr. Tuxford's report was somewhat disheartening, yet it was better that they should know the truth as to health matters.

---

[1] Bericht der Chemischen Gesellschaft, xiii., 2260.

Mr. Eley pointed out that a medical man, if conscientious and sincere, was bound to make enemies. The council, [illegible] decided to advertise the post. It [illegible] the medical officer is the [illegible] of that document makes matters plain. We see that in the district of Skirbeck many houses drain into cesspools; others drain into sewers which open into a stagnant ditch by the roadside. Others, again, drain into "Bargate drain" which has numerous houses on its banks. We may here explain that "drain" in the fens does not generally mean an underground sewage channel, but a water way cut to drain the fen lands. These drains naturally have a very sluggish current and the Bargate drain in question is little better than an open sewer. Out of 11 cases of typhoid fever which occurred in the district during the year 1900 seven occurred in Skirbeck, all of which were in houses along the course of Bargate drain or in its immediate vicinity. The isolation hospital is also severely condemned, and with good reason. The building is an old farm-house; there are no lavatories, all excreta having to be carried through the house, and the drainage, such as it is, is into cesspools in the garden. A new building is, therefore, recommended. It is quite obvious from this report that a great part of the Boston rural district has sanitary arrangements of a most defective character. Dr. Tuxford has pointed this out; therefore he was, if not actually dismissed, at all events not allowed to be re-elected without a contest. The election was held on March 30th and Dr. Tuxford was re-elected. We are eminently glad to see that the matter has adjusted itself in this way. As Mr. Brown, who seconded the motion for advertising the post, remarked at the meeting on March 16th, "We'll take and have the matter brought before the board and then we shall know who comes, and then we can elect the right party which we believe we have a right to elect" Well, the right party has been elected and we congratulate the board. It would have been a disgraceful thing had Dr. Tuxford been able to say with the masterful Hildebrand, "I have loved righteousness and hated iniquity; therefore I die in exile."

A SOLDIER'S EYES.

Sir Frederick Maurice, the general officer commanding the Woolwich District, has called the attention of the officers, non-commissioned officers, and men serving under him to a form of blindness which, he says in plain terms, is a more prolific source of disaster to soldiers than that blindness which the ophthalmic surgeon can treat and of which the presence can be detected with the result that the person afflicted with it is at once removed from the service. Sir Frederick Maurice refers to want of observation of the common objects of every-day life—a want which affects the efficiency of the soldier in barracks and which may some day bring him and his comrades to disaster in the field, and in his order to the troops under him the general commends to all ranks the practice of observation at all times and seasons. With breezy directness and simplicity he gives instances. Buckets are hanging up all round a room and the non-commissioned officer in charge at the moment when they are required has never observed that they are there, or a military policeman who is asked why he is allowing some irregularity replies with evident candour, "I beg your pardon, sir, I did not see it." The unobservant soldier, Sir Frederick Maurice points out, is not merely useless in the army, but is actually dangerous, and the general trusts to his officers to practise and to inculcate the use of faculties which all possess, but the exercise of which can *only be* made habitual by constant and intentional use. We wish Sir Frederick Maurice well in his efforts. To a great extent the facility of observation, like other forms of independent thought, is destroyed by military discipline in our army. In the barrack-yard a soldier must keep his eyes to the front unless ordered to direct them elsewhere, and the soldier in garrison towns performs most of his exercises in the barrack-yard. As a result, the ease with which soldiers of the mother country could lose themselves was a constant cause of comment and ridicule by colonials during the early part of the present war, while one of the stories published of De Wet tells how that elusive leader one night led his men straight through a British camp which barred his way, answering questions in English, and having no objection raised to his progress except by an officers' mess, the members of which grumbled because their meal was suffering from the dust raised by the fugitive Boers. Such a story, if true, affords a good instance of want of observation, when to observe would have implied an interference by the observer in that which apparently did not concern him. The want of observation, however, is not a peculiarity of soldiers, though military discipline may encourage it rather than otherwise. It is to be encountered in all ranks of society at large. The medical man meets with it frequently in his practice in persons who have failed to notice in those around them, even in those towards whom they bear some measure of affection, symptoms which a little mental alertness, coupled with a little sympathetic interest in the affairs of others, would at once have shown to them. Children often suffer thus owing to the want of observation on the part of their parents. In every-day life, moreover, it is not considered quite "good form" to be actively observant. The person who habitually notices to any considerable extent things which do not strictly concern him is, if detected, considered an inquisitive and impertinent person, while children are corrected if their natural desire to observe becomes obtrusive. Sir Frederick Maurice appeals to his officers to consider themselves always on duty in order to acquire and to teach habits which can only be acquired by those always on duty in respect of them, and Major-General Baden-Powell in his work on scouting teaches the same lesson We have suggested some of the causes, psychological rather than physical, which prevent it from being easily learnt and acted upon, and we commend the study of Sir Frederick Maurice's order to others as well as to those to whom it was issued. The necessity for the constant practice of observation by all who are entering the medical profession, at every stage of their training and career, we need not enlarge upon.

THE TEMPERATURE OF WORKSHOPS.

The Factory and Workshop Act of 1895 orders (Section 32) that in every factory and workshop adequate measures shall be taken for securing and maintaining a reasonable temperature in each room in which any person is employed. A dressmaker was recently summoned under this section and was proved to have kept a number of young women at work in a temperature of 50°, 55°, and 51° F., as shown by the thermometer on three occasions on which the factory inspector called. The room was a large one, with two fireplaces—a *provision* which showed that the original builder had recognised its requirements; but some frugal person had blocked up one of the fireplaces and in the other only an asbestos stove was used. The magistrate was satisfied that the Act had been infringed and no doubt he felt sympathy with young women compelled to do needlework in such a temperature, for the recent weather has brought home the discomforts and dangers of cold to most of us. He, however, thought it only necessary to order that the room should be brought into conformity with the Act within six months, subject to a penalty of £1 a day should his order not be complied with. Why six months should have been allowed we confess ourselves unable to understand. If the order had been that, subject to the penalty named, the room should be properly warmed within 48 hours we have no doubt that means would have been found without inordinate expense to raise the temperature by 10 degrees or failing this that the assistants would have been provided with a proper room elsewhere.

POST-GRADUATE STUDY IN THE METROPOLIS.

IT is satisfactory to hear that the association of nine of the metropolitan schools of medicine for post-graduate teaching is fulfilling a want that has been felt for many years. It is evident from the steady increase in the number of tickets issued that practitioners are finding it worth their while to spend seven guineas on a three months' course, or even 10 guineas on a six months' course, including, as it does, the enormous clinical material of nine of the large London hospitals, utilised to the best advantage for the purpose of instruction by so many leading physicians and surgeons of the metropolis. No doubt it is a great attraction to the scheme that anyone who is taking up a particular subject can follow the practice and the teaching of that subject at each of the nine different hospitals and so compare the methods of well-known authorities. A considerable number of colonial and American practitioners are being attracted by the courses.

THE BRITISH CONGRESS ON TUBERCULOSIS.

THIS congress, which has for its aim the prevention of consumption and other forms of tuberculosis, is to be held in the Queen's Hall, London, from July 22nd to July 26th inclusive, under the patronage of His Majesty the King. The President is not yet appointed, but among those holding office as chairmen of councils or committees are Sir William Broadbent, Professor T. Clifford Allbutt, Sir James Crichton Browne, Sir James Blyth, the Right Hon. the Earl of Derby, and Lord Avebury. The sections are four in number: a State and Municipal Section, of which the President is Sir Herbert Maxwell; a Medical Section, President, Sir R. Douglas Powell; a Pathological and Bacteriological Section, President, Professor G. Sims Woodhead; and a Veterinary Section, President, Sir George Brown. The State and Municipal Section will be divided as follows. In the first division will be considered statistical matters; in Division II. the Notification of Tuberculosis; in Division III. the Influence of Housing and Aggregation (these two divisions will be taken together); in Division IV. the Control of Milk and Meat Supplies; and in Division V. the Provision of Sanatoria. Two distinguished foreigners are expected to take part in this section—namely, M. Henri Monod and Dr. A. J. Martin In the Medical Section a discussion will be opened on July 23rd upon Climatology by Dr. C. Theodore Williams and Dr. I. Burney Yeo. On July 24th there will be a discussion upon the Therapeutics and Diagnostic Value of Tuberculin in Human Tuberculosis, to be opened by Dr. Heron, in conjunction with the Pathological Section. On July 25th a discussion will be opened by Professor Allbutt upon Sanatoria for Consumption. Demonstrations are announced upon cases of Skin Tuberculosis and their Treatment, and of the Use of Roentgen Rays in Diagnosis. The discussion in the Pathological Section will be as follows:—On July 23rd: "The Morphological and Physiological Variations of the Bacillus Tuberculosis and its Relations (*a*) to other 'acid-fast' bacilli, and (*b*) to the ray fungus and other streptothrices." To be opened by Dr. Alfred Moeller, Dirig. Aerzt der Heilstatte, Belzig, bei Berlin, and Dr. William Bulloch, bacteriologist and lecturer on bacteriology and general pathology to the London Hospital. On July 24th: "The Tissue-changes and Constitutional Effects Produced by the Various Constituents of Tuberculin." This will be a joint discussion in common with the Medical Section, to be opened by Professor Koch. On July 25th: "The Varieties of Tuberculosis (Morbid Anatomy and Histology)." To be opened by Professor Dr. C. Benda, Urbankrankenhaus, Berlin; Professor Sheridan Delépine, professor of pathology, Victoria University (Owens College), Manchester; and Professor D. J. Hamilton, professor of pathology, University of Aberdeen. On July 26th: "Mixed Infections in Tuberculosis." Amongst others who are expected to take part in the work in this section are Dr. Roux and Professor Metchnikoff, of the Pasteur Institute, Paris. In addition to the papers on the above subjects the secretaries are prepared to receive papers on other points in the pathology of Tuberculosis, which will come on for discussion after the official subjects have been disposed of. The Veterinary Section will deal with such important matters as the Diagnosis of Tuberculosis in Animals during Life (on July 23rd); Tuberculosis and the Milk-supply (on July 24th); Tuberculosis and the Meat-supply (on July 25th); and (on July 26th) the Legislative and other Measures necessary to Combat Tuberculosis amongst Animals. In addition to the work of the sections described above the following public addresses will be given to the whole congress: on Tuesday afternoon (the 23rd) by Professor Koch of Berlin; on Wednesday afternoon by Professor Brouardel of Paris; and on Thursday afternoon by Professor McFadyean of the Royal Veterinary College. The official languages a the congress are English, French, and German. The honorary secretary-general is Mr. Malcolm A. Morris, 20, Hanover-square, London, W. There will be a museum in connexion with the congress divided into a Pathological and Architectural Section. The honorary secretary for Section I. is Dr. W. Jobson Horne, 27, New Cavendish-street, W., and for the Architectural Section Mr. T. W. Cutler, 5, Queen-square, Bloomsbury, W.C.

BACTERIOLOGY AND THE MERCHANDISE MARKS ACT.

IF, as the progressive study of bacteriology seems to teach, fine bacteria make fine flavours, some difficulty may arise as to the proper description of certain goods. It is now well known, for example, that the flavour and aroma of a Havana cigar are due to the operations of a specific microbe during the fermentation of the leaf. Now if a culture of this pure specific microbe be taken and a German leaf be infected with it a cigar may be obtained which is indistinguishable even by connoisseurs in regard to quality and character from the Havana-grown production. How would such a cigar be properly described? This possibility must be seriously considered, for already a patent has been granted in connexion with the use of pure cultures of bacteria for the purpose of favourably influencing the fermentation of tobacco. Thus pure cultures of bacteria from fine West India tobacco have been prepared and transferred to inferior German tobacco in course of fermentation. The flavour of the German tobacco was so greatly improved that it was no longer recognisable as such even by connoisseurs and experienced smokers of the native leaf. Since a specific microbe is productive of the special flavour of the Havana cigar it would not be strictly correct to describe a continental cigar infected with the self-same microbe as containing an unnatural flavour. The flavour, though artificially induced, would be one quite normal and natural to tobacco. Nevertheless the cigar would not be a Havana cigar, although chemically and even from the connoisseur's point of view it was indistinguishable from it. In the same way a specific character may be induced in cheese by sowing it with a special organism. At one time Roquefort cheese was only produced in the village of Roquefort. Now it is produced on a large scale elsewhere, and the cheese so obtained is indistinguishable from the original Roquefort cheese simply because it is sown with the self-same organism which produces the well-known green growth of mould in that cheese. In actual practice bread is allowed to become covered with a luxuriant growth of mould and is then dried and ground, the resulting powder being strewn between the separate layers of the sliced curd. Cheese prepared in this way, though identical for all practical purposes with Roquefort, would be falsely described as Roquefort, that is, as produced in Roquefort. Gorgonzola, Brie, and Stilton could be encouraged to mature in a similar way, though the curd may have been produced hundreds of miles from the original celebrated districts. Again, the creamy flavour of butter is known to be due to a specific organism which has been employed with success in producing a butter of excellent and uniform flavour when formerly it was difficult to secure this attractive quality always. It is clear that as our knowledge of the secrets of nature such as we have described increases, the names of places made famous by the production of a specially excellent article will cease to have a specific meaning for that article. When the microbes of Havana, of Gorgonzola, and of Devonshire (or other celebrated butter-producing districts) come to be successfully cultivated on the large scale the rest is only a matter of infection in order that an article formerly exclusively associated with the names of these places may be produced identical with the native production. It is possible that distinctive flavours are associated with certain centres of production because at these centres the specific organism producing these flavours finds there a congenial environment. Once, therefore, this organism is discovered a monopoly of manufacture and fame would be seriously threatened.

THE EPIDEMIC OF PLAGUE AT ALEXANDRIA IN 1899.[1]

DR. VALASSOPOULO, the head physician of the Greek Hospital at Alexandria, has written a most interesting account of the plague epidemic which prevailed in Alexandria in 1899, commencing at the end of April and reaching its decline towards the end of July. The first case which Dr. Valassopoulo saw was admitted under his care in the Greek Hospital on May 2nd. Although the symptoms were characteristic of plague yet the bacteriological results were not quite decisive. Fifteen days later, however, a second case was admitted showing similar symptoms in which the bacteriological tests were quite conclusive, and Alexandria was therefore officially declared to be plague-infected on May 20th, 1899. It should be mentioned, however, that Dr. Valassopoulo recalls having attended a case at the beginning of April in which there was inguinal bubo with pyrexia. This, in the light of the two other cases, is now looked upon as having been plague. Of these three patients two were grocers' assistants and the third lived in a room attached to a bakery. Dr. Valassopoulo does not arrive at any definite conclusion as to how the disease was imported, but he has no hesitation in affirming that it was spread by rats, and he mentions that in one grocery-store there were found within a few days 200 dead rats and a dead cat. Dr. Valassopoulo divides the cases under his care into two classes only—namely, plague accompanied by external buboes and plague without external buboes. The first form he calls "bubonic plague" and the second "visceral plague." In all he treated 24 cases of undoubted plague, 22 of which belonged to the bubonic form and two to the visceral form. Of the 24 cases 16 patients recovered and eight died. Of these eight deaths seven were cases of bubonic plague and one of visceral (pneumonic) plague. With regard to the methods by which infection is spread Dr. Valassopoulo wisely keeps an open mind. As out-of-the-way instances of infection he cites the case of a young girl who suffered just previously to her menstruation with pruritus vulvæ and apparently was infected through the labia minora which were made raw by scratching; of a man who was probably infected by the pharynx and had enlarged supra-clavicular glands; and of a small boy with an axillary bubo who had a crack in his hand at the junction of the left thumb with the palm. Treatment resolved itself into the general treatment of infectious fevers. Buboes were incised when suppuration appeared and in the case of deep fluctuation being felt in the iliac fossa this collection of pus was let out under the strictest antisepsis. Eleven cases were treated with a curative serum obtained from the Pasteur Institute, of which four patients died and seven recovered. With regard to preventive inoculation as advised by Mr. Haffkine, Dr. Valassopoulo was unable to try it on account of the hostility of the populace, but he considers that it is of use in prophylaxis. The methods of prophylaxis upon which Dr. Valassopoulo relied were the usual ones of isolation both of patients and "contacts," with disinfection of houses, the cleansing of insanitary areas, and the destruction of rats. We have but mentioned the salient points of this report, but we congratulate Dr Valassopoulo upon having written a very clear and practical account of the epidemic.

THE OUT-PATIENT TREATMENT OF INCIPIENT MENTAL DISORDERS.

THE committee of the Dorset County Asylum, at the suggestion of Dr. P. W. Macdonald, the medical superintendent of the County Asylum, Dorchester, have approved of the establishment of an out-patient department at the asylum "to afford an opportunity of consultation, free of charge, to those suffering from mental diseases and kindred affections, especially in their incipient stage." This is a wise provision, tending to the saving of patients from threatened mental breakdown. A department of this kind has been in existence at the West Riding Asylum, Wakefield, for nearly 10 years. In London Dr. Henry Rayner has long had an out-patient clinic for mental disorders at St. Thomas's Hospital. Both of these institutions have, we believe, achieved a considerable measure of success in this special line of medical work. The London County Council have had this important matter under consideration and it is hoped that some practical good may come of it. The adequate treatment of incipient and unconfirmed cases of insanity affords one of the few means at our disposal for dealing with the problem of the increase of insanity. The general practitioner and the family physician see such cases as a matter of course before they come within the survey of the alienist and the establishment of mental clinics for out-patients both at our asylums and hospitals generally would be a great saving of time. The special treatment of the patient would commence much earlier. But provision will have to be made so that this form of medical charity may not be abused. The Dorset County Asylum Committee state that no one is to be deemed eligible for consultation and treatment at their institution except persons of the poorer class who reside in the county of Dorset and whose symptoms are, in the opinion of the medical superintendent, of such a nature as to require advice and treatment of the special character available at the asylum. Persons desirous of availing themselves of such conditions must procure a recommendation on a prescribed form from a medical practitioner, or from a justice of the peace for the county.

---

[1] La Peste d'Alexandrie en 1899, au Point de Vue Clinique, Épidémiologique, &c. Par le Dr. A. Valassopoulo, médecin-en-chef de l'Hôpital Grec d'Alexandrie Paris: A. Maloine, 1901.

or from a member of the county council, and must attend on a specified day at the out-patient department of the asylum. In Germany out-patient clinics for mental cases are in existence in connexion with nearly every asylum and university and in the United States progress is being made on the same lines, and if we desire to be free from the reproach that we are slow to advance in the field of psychological medicine the establishment of such out-patient departments in our country must become more general.

THE MIDDLESEX HOSPITAL LODGE OF FREEMASONS.

A MASONIC Lodge has been founded in connexion with Middlesex Hospital, and its consecration will take place on *Tuesday, May 7th.* The officers named in the warrant are T. J. A. Burns, M.R.C.S. Eng., as Worshipful Master; W. Duncan, M.D. Brux., F.R.C.S. Eng., as Senior Warden; and F. J. Wethered, M.D., F.R.C.P. Lond., as Junior Warden. Mr. Henry Morris, F.R.C.S. Eng., will, we understand, be the Treasurer. This is the third Masonic Lodge that has within recent years been founded in connexion with the great London hospitals, the other two being the Rahere Lodge associated with St. Bartholomew's and the Sancta Maria Lodge with St. Mary's. The Middlesex Hospital Lodge starts under good auspices and will, we trust, prove as successful as have the Rahere and the Sancta Maria Lodges. Particulars concerning the new lodge can be obtained by Freemasons connected with the hospital from the secretary, Mr. F. Clare Melhado, Middlesex Hospital, W.

THE CENSUS AND THE MEDICAL PROFESSION.

SEVERAL correspondents have written to us pointing out in somewhat expostulatory terms that although the Registrar-General gives explicit directions to the clergy and to the members of the legal profession yet he ignores the existence of the medical profession. We think, however, that a little consideration of the subject will show our correspondents that the Registrar-General has reason on his side. The legal profession is subdivided into barristers and solicitors, while articled clerks and other clerks have a recognised place in it without forming an integral part of it. In the case of the clergy again there are bishops, priests, and deacons of the English Church, of the Roman Church, and of the Orthodox Eastern Church, though we fancy that in the last case there is no bishop resident in these islands, and there are many sub-classes of nonconformity. If a man describes himself on the census paper simply as "priest" or "deacon" he gives rise to confusion. But the medical profession is one. A man passes certain examinations which give him the right to be enrolled upon the Medical Register. Being there he is entitled to describe himself as a medical practitioner and no one else should have such a right. Our correspondents would join us in warmly resenting the inclusion of quacks.

SALINE INJECTIONS IN MYALGIA AND SCIATICA.

AT the meeting of the Société Médicale des Hôpitaux of Paris on March 8th, M. Bernard reported that he had obtained very encouraging results from saline injections in lumbago, pleurodynia, and sciatica. In one case a man had suffered from sciatica for six years. The disability was absolute, the pains were very acute, and the insomnia was constant. The first night after the injection the patient slept well, the improvement continued, and at the end of a fortnight he was free from all pain and could walk easily. Three months after the cessation of treatment the improvement was maintained. In more than 20 cases of sciatica, some of which were very severe and attended by almost complete disability, the greater number of the patients were much improved in two or three days, and almost completely cured in a period varying from eight to 20 days. Equally satisfactory results were obtained in pleurodynia and myalgia. In a case of muscular rheumatism the patient, who had been treated without benefit for six months, lost both pain and disability after he had received two injections. The procedure consists in injecting five cubic centimetres of normal saline solution at the most painful points. In some cases three or four injections were given on the same day.

THE STOURPORT MEDICAL ASSOCIATION AND THE KIDDERMINSTER MEDICAL SOCIETY.

DR. R. SAUNDBY has received the following letter from the honorary secretary of the Kidderminster Medical Society with reference to that body and the Stourport Medical Association:—

"DEAR SIR,—I have to inform you that the Stourport Medical Association have amended their rules in such a way as to (1) prohibit canvassing; (2) confine their membership solely to the wage-earning classes; and (3) ensure that there shall be no funding of moneys to a greater amount than £100. The disabilities imposed by the Kidderminster Medical Society upon their medical officer have now been removed. I should be obliged if you would kindly notify the secretary of the Birmingham Branch of the British Medical Association of this fact.

"I am, yours very truly,
"O. O. PENRHYS EVANS,
"Honorary secretary Kidderminster Medical Society."

This would appear to announce the termination of a struggle in which the Birmingham and Midland Counties Branch of the British Medical Association gave support to the medical profession in Kidderminster and Stourport.

H.M. the King of Italy has been graciously pleased to promote Sir William Mac Cormac to the degree of Grand Officer of the Order of the Crown of that country. This is the second grade of the Order, the first being the Grand Cordon. It derives its name from the Iron Crown of Lombardy. Sir William MacCormac has been for many years consulting surgeon to the Italian Hospital in London.

SEVERAL daily papers have announced that Sir Dyce Duckworth has resigned his office of physician to St. Bartholomew's Hospital. This is an error and one that might seriously inconvenience its victim. Sir Dyce Duckworth has resigned his lectureship on medicine after 12 years' service, but he remains physician to the hospital.

THE King has approved of Deputy Surgeon-General Charles Benjamin Mosse, C.B., C.M.G., A.M.D. (retired), (Superintending Medical Officer), and Dr. John Pringle, C.M.G. (Member of the Privy Council), being nominated Members of the Legislative Council of the Island of Jamaica.

WE have received from the laboratory of the Scottish Asylums, 7, Hill-square, Edinburgh, two reports for the year 1900—namely, the report of the General Board and the fourth annual report by the pathologist, Dr. W. Ford Robertson. An extended notice will appear in due course.

THE inaugural meeting of the Society for the Study of Psychology by Experimental Methods will be held, by the kind permission of Dr. G. H. Savage, at 3, Henrietta-street, Cavendish-square, London, W., on Tuesday, April 16th, at 5 P.M.

BUBONIC plague at the Cape is, according to Dr. Gregory, principal Government medical officer, becoming more and more virulent. On April 1st there were two fresh cases among Europeans and four among the coloured population.

AT a meeting of the Comitia of the Royal College of Physicians of London held on Monday last Sir William Selby Church, Bart, M.D, was re-elected President by the practically unanimous vote of the Fellows

---

LORD SALISBURY continues to progress favourably. There has been considerable increase of strength At no time were the wild rumours current in some quarters justified by the facts

---

THE result of the election petition for Monmouth District Boroughs is that Mr Frederick Rutherford Harris, M P, L R C S. Edin., has been unseated

---

HISTORY OF RENAL SURGERY.

BY DAVID NEWMAN, M D, F F.P.S GLASG.,
SURGEON TO THE GLASGOW ROYAL INFIRMARY.

IV[1]

NEPHRORRHAPHY.

THE next operation called into requisition was first performed by *Dowell of New Orleans who fixed the kidney* by a tape suture in 1874,[2] but it was first called "nephrorrhaphy" by Hahn of Berlin, and afterwards named by the French writers "nephropexy" In 1880[3] I suggested stitching the kidney to the abdominal wall in a case sent to me by Dr J. M. Yair of Kilcreggan, but it was not carried into execution till three years later.

The credit of introducing the operation to the profession *belongs to Dr* E Hahn who performed his first operation in April, 1881. He exposed the capsule of the kidney by an incision in the loin between the twelfth rib and the crest of the ilium, along the edge of the sacro lumbalis muscle The fatty capsule was opened along the outer border of the kidney, the perinephric fat was drawn into the wound, sutured to the fascia by half a dozen catgut sutures, and the wound was plugged with gauze The first six nephrorrhaphies were performed by Hahn; then in Germany by Delhaes, Kuster, Esmarch, and Luenstein; in Italy by Bassini, in America by Weir, each one operation; and in this country the writer performed two nephrorrhaphies before the end of 1883 All these cases were successful In the five years 1881 to 1885 35 nephrorrhaphies were performed with one death, and in the following five years (from 1886 to 1890) 139 with four deaths, which, considering the condition of many of the cases operated upon, is a very [illegible] in the place of [illegible] a distinct adva[illegible] the treatment [illegible] patients recov[illegible] high to prevent extirpation being resorted to except in extreme cases where nephrorrhaphy had failed to give relief. The advantages are very evident The mortality is in nephrorrhaphy one tenth of what it is in nephrectomy. No renal tissue is removed; the operation can be performed on both sides and the peritoneum is not opened. As performed by Hahn the operation did not always permanently fix the kidney, but *as it is now done* little difficulty should be found in anchoring the organ in the lumbar region.

INCISION OF THE KIDNEY.

Incision of the kidney and division of the fibrous capsule for the relief of pain was first suggested by Tiffany of Baltimore in 1885 and demonstrated by him to be a successful operation in cases of so-called "nephralgia" In this country Mr. Reginald Harrison[4] and the present writer[5] have employed incision of the kidney to relieve the pain and other symptoms arising from increased vascular tension of the renal tissue Although the value of the operation has been verified by many others, the importance of the treatment has not been sufficiently recognised as a means of relieving severe renal suffering and preventing suppression of urine

RESECTION OF THE KIDNEY.

Resection of a kidney or partial excision was for a long time thought to be an extremely dangerous procedure, and even still few cases have been ventured upon, partly from fear of hæmorrhage during the operation but also from want of confidence that the wound in the renal parenchyma would heal satisfactorily Tuffier[6] showed by his experiments upon animals that during the operation the bleeding can be easily controlled and that wounds of the kidney heal rapidly Considering the very vascular condition of the organ this is to be expected The first surgeon to perform a partial excision of the kidney was Czerny[7] who operated for an angio-sarcoma on the convex aspect of a kidney in November, 1887 The wound was partly sutured and partly tamponated Two years later Kummell, and succeeding him Bardenheuer, Tuffier, and Bloch, performed partial resection of the kidney, and some of them more than once Up to the present close upon two dozen such operations have been published and on the whole the results are very encouraging, although in a few instances the partial excision is required to be followed by a complete nephrectomy

The conditions of the kidney most suitable for partial excision are maladies such as perinephric tumours and growths in *the cortex of the kidney which are strictly* localised or involve only a small portion of the organ Out of 21 cases of perinephric tumours[8] in 14 the kidney was removed along with the growth, while in seven the tumour was simply excised from the fibrous capsule. Again, in benign tumours, when they can be diagnosed at the operation, a partial excision is indicated, and for certain cystic formations the same remark applies The operation has also been resorted to in suppurative disease with or without calculus, in urinary fistula, and in tuberculous disease, but for these conditions it is not suitable Injuries of the kidney have on many occasions been treated by this method and with a good result Bardenheuer in Germany, E Owen and Keetley in this country, and Dr Nash in New South Wales have advocated its adoption Dr Arthur Barth gives a very full account of the process of healing in wounds of the kidney in von Langenbeck's *Archiv*[9]

OPERATIONS ON THE URETERS.

Operations upon the ureters may be looked upon as a development of the last few years, indeed, previously to 1887 there were only two ways of treating a fistula arising from division of the ureter or an obstruction of the duct—to let it alone or to perform a nephrectomy. But it is of interest to note that Turner[10] gives the following quotation by Caspar Bauhine:—

[illegible] after ensuing

Velpeau[11] mentions a case of a small calculus impacted in the right ureter three inches below the kidney where the posterior wall of the ureter was perforated by an ulcer, suppuration was set up in the adipose tissue behind the peritoneum, and an abscess extended from the level of the kidney to the floor of the pelvis Velpeau maintained that the calculus could have been removed by an incision in the *flank*

[illegible]

---

[1] [illegible] d in THE LANCET of March 2nd [illegible] 01, respectively

[2] Annals of Surgery, xii., p. 87

[3] Lecture on the Surgical Diseases of the Kidney, p. 87

[4] THE LANCET, Oct. 17th 1896, p. 1060

[5] Transactions of the Clinical Society of London, vol xxx., p. 65.

[6] Études Expérimentales sur la Chirurgie des Reins, Paris, 1889.

[7] Beiträge zur Klinischen Chirurgie, 1890, Band vi, p. 511.

[8] Wagner p. 113

[9] Archiv für klinische Chirurgie, vol xlv, p. [illegible]

[10] Art of Surgery, London, 1725 vol. ii., p. 487.

[11] Surgery, edition of 1851, p. 1021.

ureter. He pointed out the intimate relation of the ureter with the peritoneum, and that it is the peritoneum which maintains the ureter in contact with the psoas magnus. This led him to explain the rationale of enforced walking exercise upon a calculus impacted in the ureter; the contraction of the fibres of the psoas he thought communicated to the ureter a sort of peristaltic action which made the stone descend towards the bladder.

He gave the explanation based on his anatomical knowledge and upon a post-mortem examination of a case in which he found a moveable right kidney opposite the third and fourth lumbar vertebræ, of the occurrence of hydronephrosis in association with moveable kidney. This, be it observed, was 42 years before the same explanation was credited to Landau, Terrier, and Baudoin respectively. He attributed it to kinking of the ureter, which, fixed by the peritoneum, cannot follow the kidney in its displacements, and thus causes it to form a curve with the convexity upwards, all the more pronounced as the kidney gets lower and lower. The result of this curvature, he thought, was to obstruct the urine, or even to render its flow impossible. Finally, he described the operations of ureterotomy and lumbar ureterostomy precisely as they are now performed. Gigon thought that the obstruction to the free flow of urine due to the kinking of the ureter was a predisposing cause of stone in moveable kidneys.

OPERATIONS ON THE URETERS FOR STONES.

Calculi which have become impacted in the ureter may now be removed, but the operative procedure depends upon the position occupied by the stone. 1. When the stone is sufficiently low down to be detected by digital examination in the vagina or rectum the stone may be removed through the bladder, the rectum, or the vagina. 2. When the stone is too high up to be felt by the finger, but occupies the middle third of the ureter, it must be removed by an incision through the abdominal parietes but without opening the peritoneum. 3. When the stone is in the upper third of the ureter the kidney should be incised and an endeavour made to extract the calculus through the renal pelvis.

Emmit, Berg, Richmond, Czerny, Sänger, and the present writer have removed stones from the lower end of the ureter in the female by dilating the urethra and the ureter. Ceci removed a calculus through the rectum and Fenwick employed a perineal incision. Removal through the vagina has been practised by Cabot, Emmit, Cotterall, Fenwick, and Regney, and the writer has removed a stone from the ureter in two cases by suprapubic cystotomy. In 1887, through an incision in the lumbar region, Godlee performed a retro-peritoneal ureterotomy, and the same method was adopted by Kirkham and Torrey in 1889. Since then the method has been followed by Cabot, by Ralfe, by Finger, and by many others.

In operations through a wound in the lumbar region the ureter should be carefully searched, and if a stone be found it may in some instances be readily pushed up into the pelvis and removed by an incision through the convex border of the kidney. An incision through the substance of the kidney heals more readily than one through the wall of the pelvis. Supposing, however, that a stone is not found in the first examination with the kidney in its normal position the attachments of the organ must be freed and the organ brought out through the wound sufficiently to permit the surgeon making a thorough examination. When the hand fails to discover the presence of a stone an incision should be made through the kidney on its outer aspect, and through the wound a digital exploration of the pelvis and calices should be made, and if a stone is found it may be removed. After the stone is extracted a ureteral catheter or sound should be passed down the ureter into the bladder so as to ensure that the passage is clear. It is not uncommon to find calculi both in the pelvis and ureter. If a stone is discovered in the lumen of the duct an attempt should be made to press it up towards the kidney, and generally this is easily accomplished as the ureter is dilated above the point of impaction of the stone, but if it is firmly fixed an incision should be made through the wall to the ureter, and after the calculus has been extracted the incision may be closed by sutures.

Intra-peritoneal ureterotomy has been performed in two cases—one by Cullingworth and the other by Lane. The patient in the former case died and in the latter recovered, but on account of the danger of contaminating the peritoneal cavity the operation has not been recommended.

OPERATIONS FOR THE RELIEF OF KINKING, STRICTURE, AND VALVULAR OBSTRUCTION.

Simon[12] was the first surgeon who indicated the treatment of stricture and valvular obstruction by operation, and in 1890 Trendelenburg[13] attempted to relieve a large hydronephrosis by shortening the ureter and transplanting it from the side to the bottom of the sac. The result of the operation was uncertain and the patient died from ileus. The following year Kuster[14] attempted a very similar operation, but finding a stricture in the ureter abandoned transplantation for resection. The first successful case of ureterotomy for valvular obstruction of the ureter was performed by Fenger of Chicago in 1892[15] for hydronephrosis in a moveable kidney. The valve was divided and the ends were united by suture while the moveable kidney was fixed. He performed a second operation in the same year for cicatricial stenosis. In 1893 Mynter[16] also had a successful operation, and Morris, in his Hunterian Lectures at p. 20, describes a case of his own.

In many cases of moveable kidney the displacement of the organ leads to kinking of the ureter and transitory hydronephrosis, a condition which may be remedied by fixing the kidney high up so as to stretch and straighten the elongated duct. I called attention to this many years ago,[17] and since then I have operated successfully upon nine cases of transitory hydronephrosis in moveable kidney by the method just indicated. It is both safer and more successful than resection of the ureter in the cases referred to.

When the ureter has been divided by injury, or when a section is made for the purpose of remedying a diseased condition, the two segments may be joined or the upper portion of the duct may be implanted into the bladder, the vagina, the large and small intestine, or on the skin in the loin. These operations are being resorted to, not only in cases of stricture and wounds of the ureters for ulceration or sloughing around a calculus, but also in tumours of the bladder requiring resection of the organ and in ectopion vesicæ. When there is little loss of tissue so that the length of the duct permits of it the two segments should be reunited. This has been done in four different ways:—1. The transverse end-to-end method was first performed by Schopf[18] in 1886. Transverse wounds of the ureter tend to gape and there is considerable danger of stenosis at the point of union, but the advantage of this method is that there is no loss to the length of the duct. This operation has been performed 12 times.[19] 2. The oblique end-to-end method devised by Bovee has only been done once; the patient is still (1900) free from any symptoms referable to the urinary passages, four years after the operation. 3. The end-in-end operation devised by Poggi[20] from experiments upon dogs has been very successful. In this method the upper segment of the duct is invaginated into the lower segment, and if necessary the latter is split for a short distance. It has been performed nine times with one death. 4. The end-in-side implantation has been also employed to unite the cut ends of the ureters. The method was introduced by van Hook in 1893 and is as follows. The lower segment is closed at its upper end by a ligature, and a quarter of an inch below it a longitudinal incision is made twice as long as the diameter of the duct. In the upper segment a longitudinal incision is made beginning at the free end and extending upwards for a quarter of an inch. On the side of the upper segment, immediately opposite the slit, the two free ends of a suture are passed from within outwards, about an eighth of an inch apart and an eighth of an inch from the extremity of the ureter. The free ends are then carried through the slit in the lower segment and passed from within outwards half an inch lower down. When the suture is tied the open end of the upper segment is drawn into the slit in the lower segment. The walls may then be secured by fine sutures and enveloped in peritoneum. This method has been employed by Kelly, Emmit, Schanta, Doherty, and Reynier in operating upon women. It is not easy to decide which method is the best. The advantage of the transverse end-to-end method is that in it none of the length of the ureter is sacrificed, whereas in the oblique end-in-end operation and in the lateral anastomoses of Hook the loss must be at least half an inch and may be more. Of course, if the length of the ureter appears too short the kidney may be brought down to compensate for the loss or by separating the attachments of the duct for a few inches above and below the point of section.

When the loss of substance has been too great to permit of uretero-ureteral anastomoses grafting the end of the ureter into other parts has been resorted to. The one most frequently employed is uretero-cystostomy or implantation of the ureter into the bladder. Vesical grafting has been carried out in four different ways: (1) grafting the ureter to the bladder through the vagina; (2) grafting the ureter to the bladder by an extra-peritoneal route, an incision being made through the abdominal wall; (3) by an intra-peritoneal operation; or (4) by dividing the vesico-vaginal septum and grafting the ureter to the bladder direct. The first operation, according to Bovee, was performed by Tauffer in 1877. The next operation was done by Novaro in 1893, and since that time 60 uretero-cystotomies have been performed.

---

[12] Chirurgie der Nieren, vol. ii.

[13] Volkmann's Sammlung Klinisches Vorträge, 1890, No. 355, p. 3308.

[14] Archiv für Klinischer Chirurgie, Band xliv., Heft 4, 1892, p. 850.

[15] Annals of Surgery, vol. xx., p. 269.

[16] Ibid., 1893.

[17] Lectures on Surgical Diseases of the Kidney, 1888.

[18] Centralblatt für Gynäkologie, 1887, No. 30.

[19] For recent statistics see Bovee: Annals of Surgery, 1900, part 92, p. 165.

[20] Riforma Medica, 1887-88, p. 39.

Grafting of the ureter to the vagina has been very seldom performed and is not a satisfactory operation. It has been done by Pawlik, Chavasse, and Kossinsky. The ureter has also been implanted on the urethra five times.

Implantation of the ureter into the bowel has also been employed, but the strong objection to this method is that septic infection is very liable to extend upwards to the kidney. Experimental implanation into the rectum, the colon, and the small intestine has been studied by Rosenberg, Novaro, Morestin, Tuffier, Gluck and Zeller, van Hook, and many others, but the operations performed upon animals contrast unfavourably with those undertaken on man. According to Bovee, bowel implantation has been done 65 times on man with a mortality of 30 per cent, and a little less than a half of these were from subsequent ascending infection.

Many different methods have been employed: (1) Simon in 1851 did the first operation of this kind in a case of ectopion vesicæ by placing a loop of thread so as to make it ulcerate through adjoining parts of ureter and rectum and producing a fistula between them; (2) implantation of both ureters with pieces of the bladder attached, as by Pozza; or (3) grafting the ureter with a flap of vesical mucous membrane only. The majority of these operations have been employed *on account of gynæcological operations* in which the ureters have been accidentally wounded or divided in operation for uterine or ovarian disease, and especially in vaginal hysterectomies. They have also been used in cases where the bladder had to be resected for malignant tumours.

Implantation of the ureter on the skin has been resorted to in a considerable number of cases, Le Dentu being the first to employ it, but it seems to be justified only as a temporary measure or to save the patient from immediate death by anuria. Skin-grafting should only be resorted to when, from loss of substance, no other method is possible or to tide over a critical period, after which another implantation may be made or nephrectomy *performed. As a rule*, if implantation cannot be made into some part of the urinary tract, it should be made into the bowel, or if the kidney on the opposite side is healthy nephrectomy should be performed.

IRRIGATION OF THE KIDNEY.

Irrigation of the kidney *viâ* the ureters has been employed in a considerable number of cases and is said to be attended with good results. When it can be tolerated by the patient temporary good may be done, but the difficulties in carrying it out are so great and so irksome to the patient that incision of the kidney is to be preferred in most cases as a means of *giving an exit to discharges.*

Simon was the first to attempt the production of a systematic treatise on the surgery of the kidneys, but only the first two parts appeared. The third part, which was reserved for the consideration of cystic disease, tuberculosis, and moveable kidney, he did not live to complete. Subsequently to the appearance of his work, but 10 years later, the following books came out in succession: in 1885 Morris,[21] in 1886 Bruce Clark,[22] in 1888 Newman,[23] in 1889 Tuffier,[24] in 1890 Knowsley Thornton,[25] and in 1896 the first volume of Küster.[26]

The success of the surgeon in his treatment of renal disease largely depends upon his ability to detect lesions in their early stages. Consideration cannot be given to the development of the more exact diagnostic methods which have come into use in recent times, but it is quite certain that the means now at his disposal enable the surgeon to intervene at the onset of the disease and under the most favourable circumstances. When the operator is able to satisfy himself as to the nature and the extent of the disease the work he has to do is already clearly marked out. What we most require now in many cases is clearer insight in forming an early diagnosis It is not how, but when, should we operate, also when should we withhold our hand so that we may be sure "to do good or to do no harm."

THE ROYAL COMMISSION ON SOUTH AFRICAN HOSPITALS.

(Continued from p. 965)

VII.

WE may pass over Lord Methuen's advance (pages 19 and 20), with the remark that while the Commissioners consider that the medical arrangements were well devised and carried out there was some delay in establishing stationary hospitals at Orange river and Modder river. Lord Methuen's advance had a great advantage over that of Lord Roberts, in that the latter, having no line of railway communication with the base, had of necessity to use field hospitals as fixed hospitals for considerable periods. Kimberley was relieved on Feb. 15th, 1900. General Cronje's army was surrounded at Paardeberg from Feb. 16th to the 27th, when it surrendered. On March 6th the advance on Bloemfontein commenced, and after considerable fighting *en route* it was reached on the 13th. The facts in connexion with this part of the campaign from a military point of view are taken chiefly from the evidence of Lord Roberts, Lord Kitchener, Surgeon-General Wilson, and Major Bedford. We may note the following:—To ensure the mobility of the Kimberley relief column the transport was cut down to a minimum, the ordinary baggage of the column was left behind at Modder river, and the men had to advance with no change of clothing. Surgeon-General Wilson having declared that he could not carry out the medical arrangements for the advance with less than the minimum of transport allowed by the army regulations, had to yield to military necessity and to accept the decision of the Commander-in-Chief as he was bound to do. "Nothing but military necessities would have justified the reduction. It is not for us to question the decision of the military authorities, but we may say that we are convinced that the necessities justified the step taken by them and that the suffering thereby occasioned was part of the price that had to be paid for success in the campaign" (pages 21 and 22 of Report).

We need here only give a brief notice of a few important points. It was thought that when Kimberley was relieved the column, with its hospital service which was for military and transport reasons cut down to the utmost, would be again in touch with the railway for the transport of the sick and wounded to the stationary and base hospitals; but the unexpected movement of Cronje's force altogether changed the nature and course of the campaign. Up to Paardeberg the only way of dealing with the sick and wounded was to send them back to Modder river and Kimberley. The stationary hospital at the former place and the hospital at Kimberley acted as two base hospitals during the first part of the advance on Bloemfontein. Had there been a general hospital at Orange river it is admitted that the strain would have been very materially relieved. The reasons given for failing to plant a general hospital at this point are given (page 22 of the report). The treatment of the sick and wounded at Paardeberg was carried on under a great strain. The enemy were threatening the position, the sickness was increasing, there was no proper accommodation, the evacuation of the field hospitals had to be rapidly effected for an impending advance, and the sick were sent to Kimberley or the Modder river. The British medical authorities had, moreover, to take over all the Boer sick and wounded.

The British army operating in South Africa was almost entirely composed of a material most susceptible to enteric fever. Roughly speaking, the age from 18 to 30 years is the time of life which may be said to be the enteric fever age in all countries. The South African army was composed of men of those ages and they were all, moreover, recent arrivals in that country. Now, it has been thoroughly established statistically in India that it is during the first and second years of Indian service, and more especially during the first year, that this susceptibility is so marked. Out of the total number of British troops of all ages who died from enteric fever in India in 1898, for example, 74 per cent. were between 20 and 25 years of age; and comparing equal percentages of soldiers during their first, second, and third years of Indian service their liabilities to contract enteric fever were respectively 43, 18, and 12. The greater the supply of susceptible material the greater the prevalence of enteric fever. We may conclude, therefore, that it was something more than a mere coincidence that during 1899 there was a great fall in the amount of this fever in the Indian army. The enteric fever admission-rate in India during 1899 was 20·6 and the death-rate 5·14 per 1000: whereas in the preceding year (1898) the rates were 36·9 and 10·17 respectively. The mortality-rate from enteric fever in the Indian army for 1899 was lower than it had been for nine years previously. There may have been, and probably were, other factors at work, but owing to the war in South Africa soldiers of longer service were being retained in India and fewer reinforcements of susceptible material from home were sent out there. Whether it be acclimatisation, or survival of the fittest, or some other cause, be it what it may, that confers the immunity, the fact remains that a short-service army newly arrived in a tropical or sub-tropical climate is a peculiarly vulnerable one in respect of typhoid fever. Like all stories worth the telling the moral lies on the surface, and it is easy of application to the case of the army in South Africa. When a spark of the disease-cause lighted upon such inflammable material, environed by the conditions in which that army was, a sudden and general conflagration of enteric fever was only to be expected. Our knowledge, too, has increased with regard to the etiology and pathology of the disease, how many may be the channels of infection, and how long such infection may last. We do not, as we have said, attach much importance to any comparative statistical returns of case-mortality unless assured that the bases of comparison were the same or very similar. The diagnosis of enteric fever in other armies—that of the Germans, for instance—is much more inclusive than ours. It is clear that the inclusion of cases of continued fever among those of enteric fever would tend proportionately to reduce the percentage ratio of case-mortality of the latter, and this is the probable explanation of the lower rates of mortality usually recorded in the epidemic outbreaks of typhoid fever in the German army before Paris and elsewhere during the Franco-German war of 1870.

---

[21] Surgical Diseases of the Kidney, 12mo, pp. 548.

[22] Diseases of the Kidney amenable to Direct Surgical Interference, 8vo, pp. 176.

[23] Lectures on Diseases of the Kidney amenable to Surgical Treatment, 8vo, pp. 472.

[24] Études Expérimentales sur la Chirurgie du Rein, 8vo, p. 163.

[25] Surgery of the Kidneys, 8vo, pp. 102.

[26] Die Chirurgischen Krankheiten der Nieren, 8vo, pp. 274.

But to return to the report of the Commission. The march from Osfontein, whither the troops had been removed from the fouled ground at Paardeberg, to Bloemfontein began on March 6th, 1900. There was fighting on the way at Driefontein with the result of an addition of 361 to the list of wounded. The whole difficulty on that occasion was one of transport. "Viewed as a whole, and considering the difficulties and nature of the advance, the cutting down of the transport and ambulances, and the deficient staff of the Royal Army Medical Corps, we think that the medical authorities did their best to deal with the situation." The force reached Bloemfontein on March 13th. In the beginning of April Surgeon-General Wilson telegraphed to England for more general hospitals and more civil surgeons, and on arriving at Bloemfontein on April 23rd, seeing the position of affairs there then, he sought for and obtained more doctors and nurses in South Africa itself. But these steps came rather late. The deficiencies of the staff at Bloemfontein and the lack of sufficient nurses were not realised as soon as they might have been. Although it was right under the circumstances not to convert the hotels into hospitals, yet one or more of the hotels might have been employed to afford accommodation for nurses. The report also points out that commandeering might have been carried out on a far larger scale to secure beds and other hospital furniture and clothing.

The field hospitals were not, we are told, overcrowded on arrival, but sickness on a great and alarming scale soon occurred. It was not so much the amount, as the suddenness with which such large numbers were almost simultaneously attacked; that caused the excessive strain. The conditions were those which we have already set forth. Field hospitals, never intended for other than very temporary occupation, soon became overcrowded. There was not only a deficiency of buildings that could be utilised for hospitals at Bloemfontein, but a deficiency of medical staff and equipment for those that were utilised as such. These buildings and the field hospitals formed the only accommodation for the sick and wounded until the arrival of No. 8, No. 9, and No. 10 Hospitals (page 26 of report). All the buildings (except the Raadzaal) used as hospitals in Bloemfontein were taken over by No. 10 General Hospital. The Raadzaal was taken over by No. 5 Stationary Hospital, and to this hospital accommodation the Portland Hospital, the Irish Hospital, and the Langman Hospital contributed in the first part of April an additional 300 beds between them. It was later that the suffering from overcrowding and want of equipment occurred, but the field hospitals were rapidly becoming more and more congested. On the advance of the force from Bloemfontein to Kroonstad in the beginning of May the field hospitals, in order to accompany the troops, had to be cleared of their patients, and large numbers of sick and wounded had to be sent back from the advancing force. All who were in excess of the accommodation and could not be taken into the buildings and private hospitals poured into the imperfectly equipped and under-staffed hospitals No. 8 and No. 9 where there were no means of stopping any influx in excess of the accommodation. The result of all this was for a time a deplorable amount of misery and suffering at Bloemfontein. In June the condition of things became much better owing to the fact that transport by rail had improved and access to the hospitals on the lines of communication and at the base had been again opened up. The strength of a chain is only that of its weakest link and the links of the medical administrative chain were not apparently of the strongest at Bloemfontein. The Commissioners, while freely admitting the sudden and for a time overwhelming nature of the epidemic outbreak, leave it to be plainly inferred that the management and arrangements connected with No. 8 and No. 9 Hospitals left very much to be desired.

The condition of No. 8 General Hospital was unsatisfactory from its start and it did not begin to take in patients at Bloemfontein until about April 23rd, 1900. There is no doubt that, in addition to overcrowding, the state of this hospital was very unsatisfactory, in point of staff, equipment, dieting, and several other respects. What with the sudden influx of numbers and one thing and another its condition grew worse and worse, as will be seen by reference to pages 32 and 33 of the report. The Commissioners, after making due allowance for the great difficulties that had to be encountered, are not at all satisfied that the best had been done in the way of energy and of administrative and organising power on the part of its principal officers. To add to the difficulties, at a time when the services of capable, clear-headed, and tactful officers should have been directing the management of affairs and all should have been animated with one and the same object and should have been striving together to attain it, there were "internal dissensions and friction" between the civil surgeons in the hospital and the officers of the Royal Army Medical Corps and even between the senior officers of the Royal Army Medical Corps themselves. That was a state of affairs which, as the Commissioners say, "could only result in disorganisation."

As to the conditions of No. 9 Hospital they were very similar to those of No. 8; but it had, upon the whole, an excellent staff, the different members of which worked well together. The overcrowding was even greater in this hospital than in No. 8 owing to the fact of its being near to the railway-station. The hospital, equipped for 520 beds only, opened about April 19th, 1900. In May the influx of patients kept increasing until it had, after May 6th, reached a maximum of 1644. The condition of things, as a whole, was much what it was in No. 8, and as an indication of the strain it may be mentioned that its kitchen, as in No, 8, which was originally prepared for 520 patients only, had for a time to prepare food for an average of over 1200. These grave defects the Commissioners ascribe to the use of field hospitals as stationary hospitals, while in the case of No. 8 and No. 9 Hospitals they were to a large extent due to difficulties of transport. The only course open to the medical authorities was to have taken and to have equipped buildings as hospitals as soon as possible, after the occupation of the town and to have hurried up the general and stationary hospitals with their staff and equipment. But it is not every public or private building that is at all suitable for a hospital—indeed, for sanitary reasons, few are—and a number of small buildings means difficult administration and great waste of *personnel* and *matériel*. Fixed hospitals, it must be remembered, too, are not exempt from capture under the Geneva Convention, and for some time before Bloemfontein was occupied fixed hospitals could not be posted near that town owing to the proximity of the enemy. The facts connected with the arrival of the hospitals (other than field hospitals) in the town are set forth and the Commissioners say, "On the whole we do not think that there is any blame to be attached to the medical authorities in respect of the circumstances and times under which these hospitals were sent up to Bloemfontein" (pages 36 to 38 of the report). The Commissioners then deal from an independent and critical standpoint with the delay in bringing up the staff and in supplying necessary articles and with several other matters affording substantial grounds of complaint Concerning the charges against hospital management at Bloemfontein generally, the following is the summing-up at pages 44 and 45 of the report: "As regards certain general charges, we think it only right to say that a false impression is conveyed of the state of things existing at Bloemfontein by such statements as these, to the effect that in particular hospitals there were thousands of men in deadly disease, or that thousands of men were left unnursed, or that men were dying against convalescents in the tents (though no doubt in a few cases men may have died next convalescents), or other like general statements. The substantial grounds of complaint at Bloemfontein we have sufficiently pointed out above, and there is nothing in them to justify any charge of inhumanity or of gross or wilful neglect or of disregard for the sufferings of the sick and wounded on the part of the medical authorities or others having the duty of looking after them."

We have striven to depict the situation at Bloemfontein as it has impressed itself upon our minds, and, deplorable as it was, what does it really amount to? The causes which brought it about were mainly military (strategical) exigencies, insufficient transport, and a sudden and well-nigh overwhelming outbreak of enteric fever. We are far from saying that there were no mistakes or serious defects, no wasted or misused energy, or that the arrangements for the convenience and comfort of the troops and of the sick and wounded in the way of accommodation, transport, feeding, and so forth, were all that we hope to see them in future campaigns. The evils were serious and should not be minimised, and steps ought to be taken with a view of remedying them.

We need not enter upon any detailed account of the advance to Kroonstad because in many respects it was similar to and subject to much the same conditions as those attending on the advance to Bloemfontein. In one respect they differed, inasmuch as on the very first occupation of Kroonstad commandeering was resorted to and most necessaries were obtained for the hospitals. The Commissioners think, however, that with regard to a few things commandeering was not pushed to the full extent to which it might have been. The troubles at Kroonstad were undoubtedly chiefly due to three causes, say the Commissioners—namely, the insufficiency in number of the field hospitals, the deficiency in point of numbers of the Royal Army Medical Corps staff, and the difficulties of transport (pages 50 and 51)

SUPPLEMENTARY BATHS AT HOTELS.

AN encouraging feature of modern hotels is the attention that is being directed to the provision not only of ordinary baths but of other baths also The comforts of an hotel are undoubtedly enhanced when, for example, the equipment includes special baths, such as Turkish baths, hot or cold sea-water baths, and electric baths, and a source of considerable attraction and value is thereby gained. The English people are slowly but surely realising that treatment by means of baths for the relief of certain ailments such as gout and rheumatism may be just as efficiently conducted at home as abroad.

We have already described in our columns[1] the ferruginous baths recently adopted at Shanklin, which are identical in composition with those of Homburg, Spa, and Schwalbach on the Continent. A similar example of worthy enterprise may be seen in an interesting installation of various baths which has recently been made at the old historic hotel, the Granville at Ramsgate. This hotel, which has been entirely remodelled in accordance with modern requirements, was originally designed by Mr. Welby Pugin, a member of a noted family of architects who one and all contributed largely to some of the excellent specimens of architecture to be found in the old Kentish town. Besides sea-water baths, hot and cold, the new installation comprises a spacious Turkish bath with the usual cooling-room, hot rooms, shampooing-rooms, and a douche-room, and also a plunge sea-water bath. The plunge bath is contained in a room 37 feet long and 17 feet wide, the depth alternating from two and a half to five and a half feet. The accommodation of this plunge-bath is such as to permit swimming exercise and the bath communicates directly with the Turkish baths. In addition a series of baths has been installed which are adapted for so called "ozone" treatment which in reality means a seaweed bath. For this purpose carefully selected seaweed is crushed in order to express its juice as much as possible in warm sea-water until a somewhat slimy liquid is obtained. It may be diluted with hot sea water at will. The efficacy of this bath in gout and rheumatism is, perhaps, due in part to the absorption of the peculiar organic compounds of iodine, in part to the effect of the seaweed as a kind of warm cataplasm, and in part to the action of the sea-minerals The odour of seaweed thus treated is very strong and the vapour of the bath gives a sense of relief in irritable conditions of the respiratory tract. All these baths are situated in an annexe of the hotel, while the hotel itself is fitted throughout with baths provided with a special stop cock which will supply sea water hot, warm, or cold, or fresh water by moving the indicator of the stop-cock opposite to the name on an enamelled plate indicating the supply required. The installation is quite a new departure. The sea water supply is drawn from a selected spot and elevated to a tower where the sand and other suspended matters are allowed to subside At the basement of the building is a modern installation of electrical machinery, and water-heaters. The hotel is thus provided with remarkable facilities for keeping an installation of baths in going order.

It is proposed to add to this already excellent equipment a series of electrical baths and other baths as the need for such may be felt, the addition of other special baths being a simple matter with such facilities at hand. The enterprise is worthy of all encouragement and the appointments are admirable. The services of a visiting medical man are retained and skilled bath attendants act under his direction. The aims indicated above are to be commended—namely, the provision of facilities for taking a course of baths such as may be obtained at health resorts on the continent and in certain of our inland watering-places, with the added advantage of a sea-water supply and of an environment the tonic and bracing influences of which have long been recognised.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6609 births and 4450 deaths were registered during the week ending March 30th. The annual rate of mortality in these towns, which had decreased from 21 5 to 18 4 per 1000 in the four preceding weeks, rose again last week to 19 7 per 1000 In London the death-rate was 18 4 per 1000, while it averaged 20 5 per 1000 in the 32 large provincial towns. The lowest death-rates in these towns were 12 8 in Croydon, 13 0 in West Ham, 14 0 in Birkenhead, and 14 6 in Brighton; the highest rates were 23 2 in Huddersfield and in Newcastle, 23 4 in Birmingham, 28 2 in Liverpool, and 29 7 in Plymouth. The 4450 deaths in these towns last week included 427 which were referred to the principal zymotic diseases, against 370 and 356 in the two preceding weeks; of these 146 resulted from whooping-cough, 120 from measles, 59 from diphtheria, 43 from diarrhœal diseases, 34 from scarlet fever, and 25 from "fever" (principally enteric) No death from any of these diseases occurred last week in Brighton or in Huddersfield; in the other towns they caused the lowest death rates in Plymouth, Norwich, Blackburn, and Halifax, and the highest rates in Birkenhead, Liverpool, Hull, and Gateshead. The greatest mortality from measles was registered in Liverpool, Hull, and Gateshead; from scarlet fever in Preston; and from whooping-cough in Bristol, Cardiff, Swansea, Wolverhampton, Nottingham, Birkenhead, Hull, and Sunderland. The mortality from "fever" showed no marked excess in any of the large towns. The 59 deaths from diphtheria included 16 in London, six in Bristol, six in Leicester, six in Sheffield, and five in Salford. No fatal case of small-pox was registered last week in any of the 33 large towns; and no small-pox patients were under treatment in any of the Metropolitan Asylums hospitals during the week ending March 30th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 1568, against numbers declining from 2535 to 1598 on the 13 preceding Saturdays. The deaths referred to diseases of the respiratory organs in London, which had been 501 to 332 in the four preceding weeks, rose again last week to 363, but were 78 below the corrected average. The causes of 67, or 1·3 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Leicester, Salford, Bradford, and 10 other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Sheffield, Hull, and Newcastle.

---

[1] THE LANCET, August 18th (p 493) and Oct. 6th (p 1029) 1900.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 24·5 to 21·1 per 1000 in the four preceding weeks, rose again during the week ending March 30th to 21·6 per 1000, and showed an excess of 1·9 per 1000 over the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 15·1 in Perth and 18·1 in Dundee to 22·8 in Glasgow and 24·0 in Edinburgh. The 678 deaths in these towns included 36 which were referred to whooping-cough, 17 to measles, 16 to diarrhœa, 10 to small-pox, six to diphtheria, four to scarlet fever, and four to "fever." In all, 93 deaths resulted from these principal zymotic diseases, against numbers declining from 122 to 87 in the four preceding weeks. These 93 deaths were equal to an annual rate of 3·0 per 1000, which was 1·1 per 1000 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of whooping-cough, which had declined from 67 to 38 in the four preceding weeks, further decreased last week to 36, of which 14 occurred in Glasgow, eight in Dundee, five in Edinburgh, five in Paisley, and three in Leith. The deaths from measles, which had been 15, 10, and eight in the three preceding weeks, rose again to 17 last week, and included eight in Edinburgh, five in Glasgow, and three in Aberdeen. The fatal cases of diarrhœa, which had been six and 15 in the two preceding weeks, further rose last week to 16, of which eight were registered in Glasgow, two in Edinburgh, two in Dundee, two in Aberdeen, and two in Paisley. The deaths from small-pox, which had been 20, 24, and 11 in the three preceding weeks, further declined last week to ten, all of which were recorded in Glasgow. The fatal cases of diphtheria, which had been seven in each of the two preceding weeks, declined to six last week, and included two in Glasgow and two in Edinburgh. The deaths from scarlet fever, which had been five and two in the two preceding weeks, rose again last week to four, of which three occurred in Glasgow, where two of the four fatal cases of "fever," were also recorded. The deaths referred to diseases of the respiratory organs in these towns, which had been 171 and 126 in the two preceding weeks, rose again to 126 last week, but were 45 below the number in the corresponding period of last year. The causes of 27, or nearly 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 34·6 and 36·6 per 1000 in the two preceding weeks, declined again to 34·0 during the week ending March 30th. During the 13 weeks of the quarter ending on that date the death-rate in the city averaged 33·6 per 1000, the rate during the same period being 18·7 in London and 22·0 in Edinburgh. The 226 deaths belonging to Dublin registered during the week under notice were 17 less than the number in the preceding week, and included 14 which were referred to the principal zymotic diseases, against 12, 14, and 15 in the three preceding weeks; of these, 11 resulted from scarlet fever, one from measles, and one from "fever." These 14 deaths were equal to an annual rate of 2·1 per 1000, the zymotic death-rates during the same period being 1·8 in London and 3·0 in Edinburgh. The mortality from scarlet fever was largely in excess of that recorded in any recent week. The 226 deaths in Dublin last week included 29 of children under one year of age and 58 of persons aged upwards of 60 years; the deaths both of infants and those of elderly persons showed a decline from the numbers recorded in the preceding week. Seven inquest cases and four deaths from violence were registered; and 80, or more than one-third, of the deaths occurred in public institutions. The causes of 14, or more than 6 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Staff Surgeons J. F. Hall to the *Arethusa*, and C. G. Matthew to the *Pelorus*. Surgeons: A. Gaskell to the *Barfleur*, B. F. Parish to R.M.A. Headquarters, Portsmouth, and E. T. Meagher to the *Duke of Wellington*.

Fleet Surgeon William Berkeley Drew has been promoted to the rank of Deputy-Inspector-General of Hospitals and Fleets in His Majesty's Fleet.

ROYAL ARMY MEDICAL CORPS.

The undermentioned Majors to be Lieutenant-Colonels:—Alfred O. Geoghegan, Benjamin T. McCreery, John Richard Dodd, George Edward Twiss, Charles George Drummond Morse, Arthur Bowdich Cottell, Thomas Archer, Herbert John Robert Moberly, Alfred Paul Hart, Henry John Barnes, Richard Henry Stewart Sawyer, Walter George Augustus Bedford, Richard Jennings, Stapylton Chapman Bates Robinson, Richard William Ford, George Coutts, William James Baker, Henry Kingston Allport, Edward Butt, Samuel Townsend, Tom Percy Woodhouse, Joseph Gibson, James Havelock Alexander Rhodes, Louis William Swabey, Richard Edward Ricketts Morse, William Rowney, Thomas Rashleigh Lucas, Alfred Goodwyn Kay, William Wippell Pope, Robert Porter, Richard Charles Kirby Laffan, Charles Andrew Pearson Mitchell, George John Coates, Thomas Broderick Albert Tuckey, Frederick Arthur Harris, Francis Augustus Bonner Daly, Alexander Simpson Rose, John Battersby, James Maconachie, Menus William O'Keeffe, Thomas Joseph O'Donnell, Reynolds Peyton Hetherington, Thomas Arthur Dixon, and Walter Croker Thomas Poole.

Captain H. W. Vaughan-Williams, from half-pay, to be Captain, with precedence next below J. M. Buist, vice W. P. Barter, deceased.

SOUTH AFRICAN WAR NOTES.

Major Wyatt, R.A.M.C., is reported to be slightly improved (Bloemfontein, March 27th).

Civil Surgeon Bruce is reported out of danger (March 27th).

Major C. Stonham, R.A.M.C., Lieut.-Colonel A. H. Keogh, R.A.M.C., and Civil Surgeon Green have arrived in England.

THE VICTORIA CROSS.

The Victoria Cross has been conferred by the King upon Lieutenant H. E. M. Douglas, R.A.M.C., for the following act of gallantry:—"On Dec. 11th, 1899, during the action at Magersfontein, Lieutenant Douglas showed great gallantry and devotion under a very severe fire in advancing in the open and attending to Captain Gordon, Gordon Highlanders, who was wounded, and also attending to Major Robinson and other wounded men under a fearful fire. Many similar acts of devotion and gallantry were performed by Lieutenant Douglas on the same day."

TRANSACTIONS OF A GERMAN AMBULANCE AMONG THE BOERS.

Writing under the rubric "Revue des Guerres" in the *Archives de Médecine et de Pharmacie Militaires* for March, Dr. G. Fischer, a junior surgeon in the French army, gives the subjoined table with reference to the mortality from gunshot wounds in the German Red Cross Ambulance which proceeded to South Africa under the charge of Dr Matthiolius in December, 1899

Boer mortality from wounds by—	Cranium.	Face.	Thorax.	Abdomen	Vertebral column	Limbs.	Total.
Artillery projectiles	3	1	—	—	1	2	7
Percentage to wounded	21·0	10·0	—	—	100·0	3·4	7·5
Small arm projectiles	6	1	2	4	2	1	16
Percentage to wounded	44·4	4·5	7·1	15·4	50·0	0·5	6·8

Dr Fischer is also responsible for the statement that at the six engagements specified below the Boer losses amounted to 224 killed and 607 wounded, the proportion between the two categories being as 1 to 2·7 Maggersfontein (Dec 11th, 1899), Tafelkop (March 29th, 1900), Ladysmith (Jan 6th, [illegible] 0), Tugela (Jan 17th–26th, [illegible] 900) (The orthography in

DEATHS IN THE SERVICES

Inspector General Richard Dane, C B, at Southampton on March 27th, aged 88 years He entered the army in 1835 as assistant surgeon, was promoted to surgeon-major in 1855, and reached the rank of inspector general of hospitals in 1868 He served in the Punjab campaign of 1848–49, including the battle of Gujarat (medal), and acted as principal medical officer of the expeditionary force in China in 1858, being present in the various operations of the campaign (mentioned in despatches) On his retirement in 1872 he received the C B and a special pension for distinguished services

Surgeon James Powell Willis, R N, of the Portsmouth training ship *St Vincent*, at Sundayswell, Cork, on March 25th, from typhoid fever after an illness which lasted five weeks The deceased, who was only 29 years of age, was a son of Fleet Surgeon S Armstrong Willis, R N (retired), and received his medical education at the University of Durham, where he took various scholarships and graduated M B (with honours) and B S in 1892 Surgeon Willis leaves a widow and child

The King has given to Major Cathcart Garner, R A M C, His Majesty's Royal licence and authority to accept and to wear the Insignia of the Third Class of the Imperial Order of the Medjidieh, conferred upon him by His Highness the Khedive of Egypt, authorised by His Imperial Majesty the Sultan of Turkey, in recognition of valuable services rendered to His Highness

Correspondence.

"Audi alteram partem."

THE DUTY OF THE PROFESSION IN REGARD TO LEGISLATION FOR ALCOHOLIC EXCESS.

To the Editors of THE LANCET

SIRS,—Your leading articles on the alcohol question in THE LANCET of Feb 9th, p 410, and March 23rd, p 873, suggest a still further discussion of this medical question—for a medical question it is of momentous import Few medical men can doubt that there are now five medical questions which concern the public health and the race stability more than any others—viz, the ordinary infectious diseases question, the consumption question, the syphilis question, the housing question (which includes the provision of proper playgrounds for our children), and the alcohol question Not one of these can be adequately solved but through the application of scientific facts and principles the import of which the medical profession alone can fully estimate I most strongly concur with you that in regard to the whole alcohol question we as a profession have not taken up the position that our knowledge and opportunities give us, and when we have spoken it has scarcely been with that earnestness which comes of an assured conviction that we are dealing with one of the most dangerous enemies to our modern English race that exists The advances in scientific knowledge in regard to brain physiology and pathology and its mental relations within the past half century entitle us, nay, they should compel us, to utilise that knowledge for the benefit of the public health as well as for the individual patients whom we treat I hope there are few medical men who will not heartily agree with you and Dr William Carter of Liverpool that the alcohol question should now be treated as a part of public and preventive medicine Thus only can we get it subjected to those great principles that have initiated the recent legislation for the health of the community and the stability of the race which are embodied in the Factory Acts the Lunacy Acts, the Workshop Inspection Acts, and the various Acts relating to public health It is chiefly, I believe, by a clear realisation on the part of the public and of politicians that such principles, through which the absolute liberty of the subject is conditioned for the good of the social body and the benefit of future generations, are applicable to the alcohol question that they will embody them into effective laws The medical profession alone can demonstrate this applicability Thus only can the enormous influences of "the Trade" be overcome That great power will fight the mere social reformer, the prohibitionist, and the teetotaler to the death, and hitherto it has fought them all most effectually But cold, hard scientific principles used dispassionately by a profession which has no antagonism whatever to "the Trade," has no personal advantages in the matter, and is obviously acting in the public interests, must surely prevail in the long run Thus only shall we get rid of pettifogging attempts to remedy the alcoholic evils in detail, and be able to put the whole of the legislation in regard to alcohol on as broad a basis of principle as the existing Public Health Acts To a considerable extent the embodiment of the proposals in Lord Peel's report would come up to the ideas of our profession on this subject Here it may be necessary to point out that in educating the public mind and in legislating for the nation in regard to alcohol no practical account need be taken of the Weismann or other such transcendental theories of heredity, or of any such theory of alcoholic "immunity" as was lately developed so interestingly by Dr. Archdall Reid The hard and undeniable scientific facts about the injurious action of excessive alcohol on the brain functions and structure can be as clearly demonstrated as the mutual interaction of an acid and an alkali Whatever theory of heredity may ultimately be proved to be the true one, the fact is demonstrable that the children of the worst kind of drunkards are to a great extent ill developed, neurotic, criminal, feeble minded, or insane, and therefore bad citizens It does not weaken the force of these facts, but rather strengthens them, that the drunken parent was himself probably of a neurotic, degenerate stock, this being one cause of his taking to drink, and that he thus fell an easy prey to the temptations which beset him at every public house or in the social customs of his class When to adverse hereditary influences we have added toxic interference with the germ plasm, a bad environment in childhood, bad and insufficient food, a bad example at home, and unphysiological conditions of life generally during childhood and adolescence, we have a sum of conditions which make for national decay and which call urgently on the State for remedy by every means in its power

If the doubter needs additional facts we can refer him to Professor Kraepelin's recent careful scientific experiments on the *injurious effects* of large, but non intoxicating, doses of alcohol on the mental and motor working of otherwise healthy brains and the extraordinary persistence of some of these effects for long periods after the alcohol has been stopped Such physiological facts will receive sure confirmation through the pathological changes that within the past 10 years our microscopists, by their recent methods of preparation, have been able to demonstrate in the brain cortex of alcoholics—changes affecting the blood vessels, the neuroglia, and the cells Such changes can be seen both in those dying from acute alcoholic toxæmia and in the case of the respectable toper who has lived and enjoyed himself for 20 years since he began to drink too much, all the time getting lowered in mind and morals *pari passu* with his cortical deterioration and in consequence of it

The effects of excessive alcohol in causing insanity, both *de novo* and by bringing out latent tendencies thereto, I can speak about with some confidence after nearly 30 years' experience at the head of a large mixed city asylum. I find alcoholic insanity increasing here in prosperous times, as my friend, Dr. Yellowlees, found long ago in Glamorganshire. It now amounts to 25 per cent. of our admissions. If this is general, surely no social fact should cause a more intense feeling of disappointment to the well-wisher of our British race. That the extra money which might have provided food, luxuries, books, amusements, greater happiness, and longer life to our artisans and labourers should have gone towards brain poison, causing mental disease and degeneration, is surely one of the most biting of satires on our boasted nineteenth century progress. Could any greater human act of folly possibly be conceived? Science has nothing to say against punishing the ordinary responsible drunkard for being found drunk and for any criminal act he may commit while drunk. It has no theories that tend to diminish the responsibility of healthy men to the law. Duty, conscience, accountableness mean just as much in true science as they do in law and ethics. But science does step in and point out that there are special temptations and opportunities to drink which cannot or are not likely to be resisted by certain uneducated or unstable brains in which the faculty of inhibition is weak, and that while such persons might under favourable circumstances in a generation or two get over their brain weaknesses through the natural laws that tend to bring a weak organism back to the ideal, they will, when poisoned by alcohol, go surely on towards mental disease, crime, and extinction—meantime handing down a progeny with all their own tendencies accentuated.

Another thing the medical profession is specially fitted to do, and that is to judge rightly the safe limits of the pleasures and the social and personal amenities which alcohol in physiological quantities may secure, and to pick out the persons who can safely indulge in such pleasures. They fully recognise, through their physiological and medico-psychological studies, that human nature has never in any age or race been satisfied with bread-and-butter, but that it has craved, and always has secured, some stimulant or narcotic in addition to its common food. They can look at this fact from a scientific and brain point of view, not usually being biased or carried away by metaphysical, religious, or ethical standpoints in estimating the significance of such cravings. They can distinguish between a controllable desire and a morbid and injurious craving for such things, whether it be tea, tobacco, opium, or alcohol. They know where safety lies and danger begins. They well know also that men and women largely sin in ignorance when they begin to exceed in the use of such brain stimulants and sedatives, but that excess once begun it is apt to be a case of *facilis descensus Averno.* They also know, as no other men can know, the meaning of that slight mental and moral lowering which results from the habitual over-use in small degrees of stimulants.

This special knowledge throws a tremendous responsibility on our profession towards the public in regard to the alcohol question. But it may be suggested: "If the State or society for its advantage wants to get the benefit of our scientific experience let it ask us for our opinions, and put us in a position to have our views translated into laws." I do not think we can thus get rid of our duty. The State now deals with the alcohol question in a way, and it has created a most profitable monopoly in its sale so that it can further deal with it as it thinks good for the existing community and for the race of the future. If we can instruct the State and make our legislators realise that the advances of scientific knowledge have created a new and an imperative duty in this matter towards the health and well-being of our people, surely we are bound to exert all our influence to secure efficient legislation, just as you point out that Snow and Simon and others of our profession persuaded the State to embody their scientific discoveries in the Acts that provide pure water and air uncontaminated with sewage exhalations for the people. The populace did not make these demands. It was too ignorant at the time, just as it is now, in regard to the scientific aspect of the alcohol question. The State did not go to Snow and Simon. Those men first convinced the medical profession of the truth of their views and then went to the State to tell it its duty. Parliament was profoundly ignorant of the facts and very sceptical. The scientists were "impractical" doctrinaires and the legislation demanded was sneered at as "grandmotherly." We are now in the same position in regard to the alcohol question. We cannot shirk our plain duty in this matter. It is certain, too, that, as in regard to ordinary sanitation, the existence and working of such Acts would be a most important education to the public in regard to the dangers of alcohol. Thus sobriety on principle and conviction would be attained—the highest result of all. Surely we might now reasonably ask something like the following legal provisions.

1. Powers to restrict the liberty of the habitual drunkard and to place his name on a black list or to put him under treatment. 2. Powers to protect children in every reasonable way against alcoholic evils. 3. Compulsory instruction in regard to the dangers of drink and the necessity of physiological temperance to be given in all schools. 4 A strict and even suspicious inspection of all public-houses by a special department of police. It is a most anomalous and irrational thing that dairies, factories, lunatic asylums, gaols, reformatories, workhouses, schools, and many special trades are rigorously inspected by the State, while public-houses, that may do far more harm to society than any of these are left practically uninspected. 5. Provision for a careful inquiry by a public, impartial authority into the character of those who hold licences and sell drink in public-houses before the licence is granted. 6. The punishment of everyone who knowingly sold drink in such quantities the immediate effect of which was to create the condition and crime of drunkenness. 7. Provision for good food and non-intoxicating drinks in all public-houses. 8. A general diminution of temptations to excessive drinking and shorter hours for public-houses. 9. A duty laid on an impartial judicial and medical authority to investigate the causes of any special amount of drunkenness, or disease, or race degeneration the result of drunkenness in any locality, and powers to enforce drastic remedies. 10. Abundant liberty for localities to try methods of supplying the public with drink other than through the ordinary licensed public-house, and to provide counter-attractions in every reasonable way.

I am, Sirs, yours faithfully,

March 30th, 1901. T. S. CLOUSTON.

LEGISLATION AGAINST NATIONAL INTEMPERANCE.

To the Editors of THE LANCET.

SIRS,—Two questions lie at the root of the problem of temperance reform—the question as to whether parental intemperance affects children subsequently born and the question as to whether measures for diminishing or abolishing the use of alcohol are practical. I need not dwell on the first point. It was dealt with at length in THE LANCET of Oct. 14th, 1899, p. 1046. I observe, however, that your correspondent, "M.D., B.S. Lond.,"[1] states that "it is a fact that habits of intemperance in either parent tend inevitably to produce conditions which act unfavourably upon the children and interfere with the healthy development of both mind and body." May I ask him for evidence in support of this statement—which, if true, is of such momentous importance that the whole temperance problem hinges on it? My request has been made many times, but the reticence and silence which have always followed are so curious that I await his reply with unusual interest.

Of late years temperance reform has been tried on a very wide scale in the civilised world. I have ventured to challenge[2] its advocates to indicate a single instance of its successful application—to indicate a single instance in which prohibitory laws have not been followed by increased drunkenness, as well as by a general degradation of the public morals. As yet I have received no reply, and I anticipate none. The most drastic measures having failed everywhere "M D., B.S. Lond." proposes to exclude children and barmaids from public bars. He will perhaps pardon me, but I am irresistibly reminded of the historic lady who tried to sweep back the ocean with a broom. He inveighs against the "firmly rooted belief in the general usefulness of alcohol both as a remedy in disease and as an article of diet," and declares that "it is our duty to put the facts clearly and authoritatively before the public." I cordially agree. But may I add that some knowledge of the biological truths which underlie this matter, as well as of the disastrous failures which have attended all attempts at temperance reform on the lines laid down by your correspondent would be useful also When we cease to push back the ocean with a broom, when we raise the level of the land, then we may be successful

---

[1] THE LANCET, March 23rd, 1901, p 892.
[2] THE LANCET, Feb. 23rd, 1901, p 578.

I am, Sirs, yours faithfully,
Southsea, March 26th, 1901. G ARCHDALL REID

To the Editors of THE LANCET.

SIRS,—The letter of your correspondent, Dr H Laing Gordon, would have received my attention, but with "M D, B S Lond" I quite agree in regarding it as not at all helpful. I believe I am acquainted with the recent researches in alcohol and my conclusions, as stated in THE LANCET of Feb. 23rd, p 578, represent, I believe, the correct modern view. Your columns, Sirs, cannot possibly be thrown open to the consideration of any subject more vital in importance, for if drunkenness could be largely diminished by legislative or other action the greatest hindrance to further sanitary advance would be removed and the general death rate might fall to 14 per 1000, for, as it has been observed, the deaths from intemperance have risen from 45 per 1,000,000 of those living to 77 per 1,000,000 Now, Sirs, the medical profession has reduced the death rate of the country to its present level, and it alone can, and I believe will, break down this greatest hindrance also There is now a bitter cry throughout the country from the laity to our profession for help and concerted action Declarations by the profession as a whole have been made in the past upon subjects with such vital relations to the welfare of nations and with the most successful results Is not the present time opportune for such? I will gladly subscribe to any fund required to promote concerted action

I am, Sirs, yours faithfully,
Lightcliffe, Yorks, March 23rd, 1901 ASPINALL MARSDEN

THE RECENT EPIDEMIC OF TYPHOID FEVER IN SOUTH AFRICA.

To the Editors of THE LANCET

SIRS,—In the recent discussion on this subject before the Clinical Society of London, Dr Howard Tooth[1] in his very able paper gave expression to the opinions of the majority, at all events, *of medical men who have had opportunities for* observation during the epidemic in South Africa The fact of water being the chief source of infection is beyond question Even water derived from very deep levels has been shown to contain pathogenic organisms In one instance, at all events, water taken during the sinking of a mine shaft at a level of nearly 200 feet was found to contain streptococci, and on investigation this was found to be infected from surface water which had become contaminated *by passing through disused filled in latrine trenches some* hundreds of yards away Filtration through the soil, therefore, had had but little effect upon the water and, as the event proved, the water induced a serious outbreak of enteric fever amongst those who had made use of it for drinking purposes, from which it may be assumed that the bacillus typhosus was also present

As Dr Tooth points out the spread of enteric fever by dust has received far less attention than it deserves That infective material does become dried and driven about as dust is beyond dispute This was proved on several occasions at Johannesburg last year by exposing culture plates during dust-storms It is difficult enough to devise any certain and practicable method for purification of infected water, it is impossible entirely to obviate risk of infection by dust. In some directions, however, it is possible and in one in particular *much might be done which is not done at present* It is quite impossible to avoid the transference of patients sick from enteric fever in various stages, or from dysentery, or from the various forms of diarrhœa which are so universal in South Africa and the precise nature and relationship of which are so obscure During the transport by train it is obvious that the lavatory accommodation is strained to the utmost The waste pipe from the water closets discharges directly on to the line, and except in the case of lying down patients, who are by no means the only infective ones, no method of sterilisation is adopted In the neighbourhood of stations sick trains are constantly delayed on sidings One that I took down country, for instance, was delayed on a siding all night, 68 patients, all either enteric fever or dysentery cases, being on board The condition of that siding in the morning can be better imagined than described There was doubtless infective material enough in that one spot properly distributed to spread enteric fever and dysentery throughout South Africa This constant infection of the line during many months supplied ample material for the distribution of disease by dust There was probably not one single station or siding from Cape Town to Pretoria in which enteric fever and dysentery cases might not be found The remedy for this infection of the railway track is obvious and simple If instead of the waste pipe discharging on to the permanent way tanks containing some efficient antiseptic were provided beneath the lavatory, which could be emptied and the contents destroyed as opportunity offered each day, one very constant and active source of infection might be greatly lessened if not entirely removed

Flies unquestionably formed almost as serious a means of distribution of infective disease as dust They swarmed in *the latrines and were the pest of the enteric fever tents*; on the surgical side of the hospital they were very little trouble comparatively Food left uncovered even for a minute during the summer time was quickly black with flies and there can be no shadow of doubt that many must have previously been upon infective material As Dr Tooth very truly remarks, the wonder is not that the epidemic was so severe, rather is it a matter of congratulation that it was not more so, considering how many unavoidable causes were at work

The causes of the spread of the disease, at all events on active service, being in many cases wholly unavoidable, the success or otherwise of protective inoculation becomes of vast importance The statistics which have so far been forthcoming are, to say the least, unconvincing Moreover, *those emanating, or which will shortly emanate, from the* military hospitals will, it is to be feared, be of little or no scientific value whatever The reason is not far to seek A very large number of cases stated to be those of enteric fever proved ultimately not to be so When first seen there was doubtless every reason for believing that the diagnosis was correct, but when transferred, as such cases often were, to another hospital, a few days' observation proved that the attack of fever, whatever may have been its nature, at all events was not enteric The sick reports which arrived with these cases were marked "enteric" and also "inoculated" or "not inoculated" as the case might be In many instances no official alteration of the original diagnosis was made Since the statistics are, or will be, largely if not wholly compiled from these sick reports it is obvious that it does not need very many of these erroneous papers to vitiate any statistics that may be drawn up from them That it should be well nigh impossible to avoid these clerical errors on active service is obvious to anyone who knows the conditions under which the work has to be carried out They are, after all, only errors on paper and no patient ever suffers as a result of them At the same time, it is only right to point out this serious source of error when one hopes for scientific conclusions as to inoculation for enteric fever to be drawn from the statistics that will ere long be published If this source of error can be eliminated then of course the statistics become of real value and some degree of finality may be attained I am unable to quote figures at the present time, but Dr Pershouse, who was head of the enteric division of No 6 General Hospital, and who had many hundreds of unquestionable cases of enteric fever through his hands, assured me that after very careful study of the question and from very carefully kept records he was unable to give a definite opinion in favour of inoculation It is essential that not only should the mortality of authenticated cases be recorded but also that the incidence of the disease in the inoculated and uninoculated should be shown

The question is one of such paramount importance that it is sincerely to be hoped that reliable evidence will ultimately be forthcoming

I am, Sirs, yours faithfully,
H TEMPLE MURSELL M B, F R C S Edin,
Late Civil Surgeon British Forces, South Africa.
Weymouth street, W, March 29th 1901

"THE TEACHING OF ANÆSTHETICS"

To the Editors of THE LANCET

SIRS,—In Dr Frederic Hewitt's letter in THE LANCET of Jan 19th, p 212, he attacks me for hampering the important question of making the teaching of anæsthetics a recognised part of the medical curriculum by introducing side issues. On the importance of the question I am in full accord with Dr. Hewitt, but what he terms side issues are merely further stages of the discussion. As soon as it is admitted that the medical curriculum should include anæsthetics, the next questions to be decided, and they are not side issues, are, what is the best method of instruction, and what anæsthetic is safest in the hands of the average medical practitioner? Students are already overburdened with lectures and examinations, and such means are quite inadequate to make them skilful chloroformists. This can only be done by a regular course of clinical training in a hospital. The plan which we have found to work well is to make every student give chloroform for a stated period. While he is performing this duty no one is allowed to interfere with him except the operating surgeon, but careful and accurate notes are taken of every detail throughout all his administrations. In this way he acquires the habit of responsibility, and the onlookers become familiar with the method of administration which thus becomes traditional in the school, so that when the student's turn comes to act as chloroformist he is perfectly familiar with sound principles, and very soon acquires the experience, from a large number and variety of cases, which makes him a skilled anæsthetist. In London there is no practical teaching in anæsthetics worthy of the name. In most hospitals anæsthesia is produced in a side room, the patient is only brought into the operating theatre when he is "over"; the students do not even see, or, as they ought, carefully watch and take notes of the process, and the teaching literally amounts to "handling" the ether inhaler occasionally for a few minutes. In Hyderabad we find a month of clinical training more than sufficient to render the average student capable of administering chloroform, the only anæsthetic we use, with a safety which is unattainable even by ether. This is clearly demonstrated by our statistics which show no deaths in dental operations under chloroform during the last 15 years, while those of Dr. Hewitt show that in the same period there were in Great Britain 10 deaths from the other anæsthetics which he advocates in preference to chloroform.

---

[1] THE LANCET, March 16th, 1901, p. 769.

Table of Dental Anæsthetic Mortality (Compiled from the Statistics of Dr. Hewitt and Lieutenant-Colonel E Lawrie, I.M.S.).

Statistics.	Locality.	Period.	Mortality.	
			From chloroform.	From other anæsthetics
Dr. Hewitt's	Scotland	15 years	12	2
	England and Wales (excluding London)	15 years	15	6
	*London	15 years.	—	2
Lt.-Col Lawrie's	Hyderabad	15 years.	—	—

* Chloroform was seldom if ever used in London.

These figures should be clear proof that chloroform properly administered—i.e., on Syme's principles and in the Hyderabad method—is the safest anæsthetic, and if we in Hyderabad can teach the average student and nurse to be thoroughly efficient in a month there is no reason why the average English medical student, who will eventually become the average practitioner, should not attain the art in an even shorter period. In fact, not only the average medical student, but the average dental or midwifery student, is quite capable of learning the proper method of administering chloroform. If this was done and it was known that chloroform could be given by every doctor and dentist without danger and with little or no additional expense—unless the patient desired to indulge in the luxury of a specialist—the result would be an enormous increase in the numbers of patients anæsthetised and an immense alleviation of suffering throughout the length and breadth of England.

Dr. Hewitt attempts to explain away our admitted success in practice in various ways but fails completely. For his ill-defined theory of the influence of cold and damp on anæsthesia he can produce no scientific evidence. Would he venture to assert that chloroform is more dangerous at Lahore in the cold weather with a mean temperature of, say 45° F., than in the hot weather when the mean temperature is over 100°? Is it less risky in Simla with an altitude of 7000 feet than in Calcutta which is almost at sea-level; in Jerusalem than in Jericho? Personally I have never found any difference was caused by variations of temperature or humidity, or even by the change from England to India. Nor are we, as he insinuates, afraid to use chloroform properly. Certainly our doses are proportioned to the needs of our cases. To produce complete anæsthesia or narcosis in every case of tooth extraction is to abuse the drug and cause unnecessary inconvenience, and perhaps sickness, to the patient. On the other hand, we do not habitually endanger our patients' lives by pushing chloroform "beyond the point where the corneal reflex disappears," which is the system Dr. Hewitt advocates. When that point is reached the patient is completely narcotised, and to push it beyond it is to keep him on the very verge of being overdosed, to approach if not to enter the region of danger. But the assertion that we do not produce complete anæsthesia when the operation renders it necessary is as untrue as it is ridiculous, and I should like to know Dr. Hewitt's authority for the statement. Nor, again, do we rely on the special gifts for anæsthetising with which Dr. Hewitt so generously credits me. I may say that I rarely give chloroform personally; at my operations I do the surgeon's work, and leave the anæsthetising to students and nurses of no special endowments. Yet my record in surgical as well as dental operations is, with one regrettable exception, unbroken, and it is they who have kept it so, just because they have had clinical training in the right method.

Moreover, the value of our methods must, I submit, be judged by our own statistics, which are of real scientific value, as each case included represents a uniform plan of administration, and not by the loosely compiled figures from which Dr. Hewitt draws the illegitimate inferences which form the latter part of his letter. He assumes in them that in all operations in Scotland, in the 15 years from 1880 to 1895, chloroform was administered on Syme's principles and the Hyderabad methods, and in all operations in England on other principles and methods, and he urges that the high dental anæsthetic death-rate in Scotland condemns our position. In the first place, Syme's principles are by no means universal in Scotland nowadays and the improved Hyderabad methods are almost unknown. Besides, are not many English practitioners trained in Edinburgh? Have not several Scottish practitioners gone out from the London hospitals? May not some of the others have hearkened to the voice of Professor Annandale, who teaches London methods from Syme's chair? What was the method adopted in the Scotch hospital to which Dr. Hewitt refers as having nine deaths in one year? When did these accidents occur? In fact, locality is no proof of the method adopted, and as the statistics are based on a definition of method by locality they are valueless. Dr. Hewitt's arguments are, however, worthy of their foundation. What is the use of calculating, as he does, the ratio of deaths to population and not to the operations in which the various anæsthetics were administered? The latter is the only percentage of value, and even then the method of administration must be carefully specified before figures can tell either for or against any particular plan. Dr. Hewitt's conclusion is a fitting climax. It is that I disregard the risks of chloroform. Carelessness of life is a strange accusation to bring against me, when the method I advocate in the hands of students and nurses has in 15 years caused no death in dental operations, while Dr. Hewitt's have on his own showing produced "*only* 23." I can assure him that I am fully alive to the risks to which his methods subject his patients, and that the only thing I do disregard and utterly deny is the direct action of chloroform on the heart, behind which he and his fellows shield themselves and the disastrous results of their teaching.

In conclusion, I have great pleasure in giving Dr. Hewitt information on a point on which he is apparently ignorant. Although there is no coroner's inquest in Scotland there is an efficient substitute in the inquiry before the procurator fiscal, and it is no more likely that accidental deaths under chloroform escape notice in Scotland than in England. Be this as it may, unless and until it is shown that the Hyderabad methods were adopted in each case it is difficult to understand how Dr. Hewitt's position could be strengthened by a fuller record of the chloroform deaths in Scotland, any more than it would be by a more complete record of the deaths from ether which unquestionably escape notice in

London where coroners' inquests abound Both would prove that his position is an absolutely false one, brought about by the deplorable attitude which he and his fellow anæsthetists still maintain towards the work of the Hyderabad Commission. Dr Hewitt affects with some show of confidence to shelter himself behind the "scientific world" in this matter, but even he cannot have failed to notice that, though the world of science is particularly well able to speak for itself, it has been singularly reticent on the subject of anæsthetics ever since the Cambridge contingent of its representatives cut such a very poor figure at the great meeting of the British Medical Association in Montreal

I am, Sirs, yours faithfully,

EDWARD LAWRIE

March, 1901

STATISTICS OF OPERATIONS ON THE KIDNEY

To the Editors of THE LANCET.

SIRS,—In an endeavour to make a collection of renal operations performed up to the end of the last century I am desirous that the statistics should be as complete as possible and made to include not only those cases the records of which are known, but also unpublished cases. May I therefore venture through your columns to ask operators to assist me by sending to me a complete list of their operations up to Dec 31st, 1900, giving particulars in the following order :—(1) Number; (2) date of operation; (3) name of operator, and if the case has been published, where, (4) sex and age of patient; (5) nature of disease; (7) duration of dise *as ultimately determined*, (9) *ultimate result*.

Fourteen years ago I made a similar appeal and in response received records of a large number of valuable unpublished cases, also details as to the ultimate result of many others the earlier history of which had been made known Encouraged by the hearty cöoperation formerly accorded I now appeal to a greatly increased field of workers for help in demonstrating the position to which renal surgery has attained I am, Sirs, yours faithfully,

DAVID NEWMAN

Royal Infirmary, Glasgow, March 21st, 1901.

PS —Schedules will be supplied on application to my resident assistant at the Glasgow Royal Infirmary —D N

"THE ORGANISATION OF THE PROFESSION."

To the Editors of THE LANCET

SIRS,—I should like to say a few words on the above subject which is introduced in THE LANCET of March 23rd, p 894, by "A General Practitioner." It is over two years ago since the medical men practising in the eastern valley of Monmouthshire found it necessary to organise themselves into an *association* chiefly—with the object of getting better pay, and to that end a circular was printed and sent to the various *collieries* and works by the *surgeons* attending them Up to that time the medical attendant was paid at the rate of 2*d*. in the £ of the weekly earnings, and the medical attendant was to provide medicine, medical attendance, undertake all accidents *and operations* and provide appliances to the workman, his wife, and family. Midwifery was the only thing paid specially for, and that was expected to be attended for a fee of *10s 6d* irrespectively of the nature of the case or the distance away. Immediately the notices went forth to the various works from the doctors asking for the advance of 1*d* in the £ an angry growl rose from the mass of workmen and many meetings were held, the collier especially being the most dissatisfied and endeavouring to make a good bargain for himself by stating that if he advanced the doctor's pay *1d* in the £ he must have a *quid pro quo* in the shape of *linseed* meal, cod liver oil, and free midwifery, thoroughly disregarding the fact that we had attended all through the five months' coal strike without a farthing remuneration and, as we had pointed out in our circular letter, that the advance in assistants' salaries and other things connected with the profession made it imperative that our pay should be increased We made up our minds distinctly that we could not supply cod-liver oil and linseed-meal, neither would we give *free midwifery*, although we knew that in the western valley and some other places in the South Wales coal district these three things had been conceded, as well as free attendance on venereal diseases We had met the British workman with his own weapon and, strange to say, he did not appreciate it—viz, a trade union, and the only thing we had to fear was the introduction of strangers into our midst This was threatened, and one of our members acting rather precipitately resigned His resignation was accepted and an advertisement was inserted in a local paper for a successor to his appointment, and, notwithstanding the fact that by a counter advertisement we asked applicants to communicate with our secretary before applying for the post, no less than 25 medical men made application for the position, which I may add was only a very small affair In the organisation of the profession what is required is that medical men, and the junior members especially, should band themselves together in one union to resist the great tendency there is to reduce our remuneration The junior members should stand by and allow us to fight the battle which in the years to come will be for their benefit During the past two or three years the junior members have benefited in a financial way by the action of their seniors, and if they will only help us by keeping aloof from applying for posts they know to be vacant in consequence of some disagreement with the original *holder until they know the exact position of affairs* they will benefit the profession at large and raise our status socially I may add that after several months of hard fighting we gained the 1*d* advance we asked for without supplying free cod-liver oil and linseed meal, but we had to make a concession with respect to the midwifery, inasmuch as we agreed to attend any workman's wife in her confinement for the usual half guinea providing we were engaged beforehand and a proper nurse were in attendance; but, at the same time, if any woman was being attended by a midwife and any difficulty arose that she could not manage we agreed to give free attendance This was called emergency midwifery This arrangement has now been going on nearly two years and works very well —I am, Sirs, yours faithfully,

S BUTLER MASON, M R C P Edin, &c.,
President of the Eastern Valley Medical Association, Monmouthshire

Pontypool, Mon., March 20th, 1901

DEAFNESS IN BOARD SCHOOL CHILDREN.

To the Editors of THE LANCET

SIRS,—The question of diminishing the amount of deafness in children through the agency of school boards having been raised in THE LANCET of March 16th, perhaps the method adopted in the Halifax schools, though without any claim to originality, may have some interest Each class is visited by the medical officer for this purpose, and all "mouth-breathers" and children thought by the teachers to be deaf are examined by him Printed notices are subsequently sent to the parents of those suffering from adenoids advising them to seek medical treatment either privately or in hospital. In a few cases of otorrhœa a similar notice is sent, but in the majority of these cases the parent is simply warned of the dangers of the condition and advised to syringe the ears daily. Doubtless it would be better to have these cases also under medical supervision, but now and until the poorer classes regard otorrhœa more seriously advice to this effect would be largely thrown away and the moral effect of the notices gradually destroyed I may add that with the increased attention paid to breathing exercises and the repression of mouth breathing it is hoped that the number of adenoid cases will be much diminished The method is no doubt crude but it certainly results in the "cure" of a fair number of cases and a great diminution in the number of offensive aural discharges; it gives rise also to an increased disposition on the part of parents to seek treatment for their children in ear affections which they formerly regarded as of little moment or beyond remedy, and while there are obvious objections to an educational body taking up the actual treatment of disease the education of children or their guardians in the importance of personal hygiene may fairly be claimed as one of their duties

I am, Sirs, yours faithfully,

T H HUNT, M D Lond,
Medical Officer to the Halifax School Board

March 20th, 1901

BEER-POISONING

To the Editors of THE LANCET

SIRS,—Those who drink beer have been rather startled of late by ascertaining that there are disease and death in this wholesome beverage, arising from the introduction of arsenic in its manufacture. But it is not equally well known that there are many sufferers from lead poisoning who have to thank their beer for this often lamentable disease arising in its distribution. I have had a poor woman in hospital for many weeks, not only suffering from dropped wrists, but also from paralysis of both legs, from this cause. The lead is introduced by the employment of lead pipes to convey the beer from the beer-barrel to the beer-pump. Woe betide the unfortunate beer-drinker who frequently has the first "draw" in the morning under these circumstances, for lead-poisoning is sure and death not unheard of. Lead pipes should be prohibited for such a purpose.

I am, Sirs, yours faithfully,

Rugby, March 30th, 1901. CLEMENT DUKES.

THE CASE OF AN ELECTION.

To the Editors of THE LANCET.

SIRS,—In September last a vacancy was advertised for a physician to out-patients at the above hospital. With two other candidates I applied for the post. On Nov. 14th the secretary of the hospital wrote to me that the Committee of Management had elected me. My day of attendance was settled, I took up my duties in the following week, and I intimated to you the fact of my election, which you duly announced. I was subsequently instructed to attend at physicians' operations on two days a week and on emergency calls, which I proceeded to do, assisting at the request of individual members of the staff. I further undertook by request additional temporary out-patient duties. Proofs of the hospital out-patient letters with my name printed thereon were submitted to me for final approval and correction and on Dec. 10th I attended a meeting of the Medical Committee, of which the secretary of the hospital had given me official notice.

Now comes the extraordinary sequel. On Dec. 12th the secretary of the hospital wrote informing me that the minute referring to my election was not confirmed, that the matter therefore stood over for the present, and that he understood a member of the staff would write to me respecting my attendance. On the same day the secretary of the Medical Committee wrote that he had been asked by his colleagues to inform me that as my election was not confirmed it would not be necessary for me to attend in the out-patient department or at operations. In consequence of these letters I at once ceased to do so. On Dec. 21st the secretary of the hospital wrote in reply to me that the non-confirmation of my election left the post vacant; that therefore I was purely a candidate as before and as such not entitled to take part in the work of the institution.

On Jan. 23rd, 1901, he wrote that in consequence of legal opinion the Committee of Management had resolved to take up the election at the point of the reception of the Medical Committee's report on Oct 23rd. Though I have received no official intimation, I understand this took place on Feb. 12th, resulting in the election of one of the other candidates. From the preceding facts, it must be admitted that I am placed in a very anomalous position. I received every proof anyone could possibly expect to receive of my appointment as physician to out-patients at the Samaritan (Free) Hospital for Women and Children On the other hand, I am led to believe that a fresh election has taken place, and another appointed to my post—and that through no fault of mine.

I am, Sirs, yours faithfully,
JOHN A. SHAW-MACKENZIE, M.D. Lond.

Grosvenor-street, W., April 2nd, 1901.

"THE ELIMINATION OF ARSENIC THROUGH THE HAIR."

To the Editors of THE LANCET.

SIRS,—The paper on the Elimination of Arsenic through the Hair in THE LANCET of March 23rd, p. 854, has recalled to my mind some experiments which I made many years ago in conjunction with the late Dr. Bence Jones on the rapidity of the diffusion of substances into, and out of, the animal tissues. Among other substances, we experimented with chloride of lithium, the diffusion of which into, and out of, all the organs and tissues of the body can be traced with remarkable facility. At first I had come to the conclusion that lithium diffused also in the hair. On consideration, however, it struck me that there were at least three possible sources of the lithium I had found in the hair: (1) direct diffusion into the hair; (2) absorption from the perspiration of the skin of the scalp; and (3) absorption from the hand passed through the hair. Accordingly, I carefully isolated some locks of hair by wrapping them in waterproof material, thus preventing absorption by either of the last two possible means. In the hair thus protected I never found lithium, and thus came to the conclusion that lithium did not diffuse directly into the hair. My experiments were not carried on long enough to decide whether or no lithium could be found in the hair grown during the time lithium was taken, as that question lay outside the scope of the inquiry. The question therefore arises, Where was the arsenic found, in the old or only in the new growth? If in the former, were any experiments similar to that described, made?

I am, Sirs, yours faithfully,

Howick-place, S.W., March 27th, 1901. A. DUPRÉ.

To the Editors of THE LANCET.

SIRS,—With reference to the interesting paper on the Elimination of Arsenic through the Hair by Dr. E. Knecht and Mr. W. F. Dearden and your comments thereon[1] may I be allowed to point out that this has been known for some years? As far back as 1891, at any rate, Professor Brouardel in his lectures on medical jurisprudence, insisted on the importance of examining the hair and nails of exhumed bodies for arsenic in suspected cases of poisoning. For all I know the fact that arsenic is stored up in the hair and nails may have been observed long before 1891. Dr. Knecht and Mr. Dearden's independent researches, however, are valuable in directing attention to a point of medico-legal importance. I am, Sirs, yours faithfully,

GEORGE PERNET.

Upper Gloucester-place, Baker-street, N.W.,
March 25th, 1901.

To the Editors of THE LANCET.

SIRS,—With respect to the article on the Elimination of Arsenic through the Hair, contributed to THE LANCET of March 23rd, p. 854, by Dr. E. Knecht and myself, I should like to make an important correction. In line 31, column 1, instead of "Scales are but rarely met with," one should read "*Scabs* are, &c." It is well known that scales are not at all uncommon in cases of chronic arsenical poisoning. I very much regret that I should have failed to notice the error when correcting the proof.

I am, Sirs, yours faithfully,

Crumpsall Park, Manchester, W. F. DEARDEN.
March 26th, 1901.

THE

ORGANISATION OF THE PROFESSION.

(FROM OUR SPECIAL COMMISSIONER.)

(Continued from p. 821.)

The Formation and History of the Gateshead Medical Association.—Defeat of the Attempt by the Friendly Societies to Create Female Lodges.—Increase of Subscriptions Paid by Adult Males.—The Subscription to Private Family Clubs Increased.—Insurance Companies Kept at Bay.—Proceedings against Unqualified Assistants.—Absolute Unanimity Secured.—Active General Propaganda Work.

IN describing the efforts made to organise the members of the medical profession in the counties of Durham and Northumberland the history of the Gateshead Medical Association should have been given first had I taken these organisations in their chronological order. On the other hand, the Northumberland and Newcastle Medical Association should have come last instead of first on the list, for it was constituted at the most recent date. But there was practical utility in calling attention at the earliest moment to those localities where a struggle was actually taking place. Now, however, that these more urgent events have been related it remains to render honour to whom honour is due by giving the history of the parent society. The first historical date in regard to the organisation of the profession in the counties of Durham and Northumberland is Sept. 22nd, 1896. On that occasion the Gateshead practitioners were invited to meet in the private house of one of their number to discuss what steps, if any, should be taken to elect Direct Representatives to the General Medical Council. Out of a possible attendance of 36 practitioners 16 were present and they agreed to take action in regard to the constitution of the General Medical Council. Then towards the end of the meeting someone inquired whether it would not be advisable to try to form an organisation for the special purpose of dealing with ethical and economical questions. This suggestion was so warmly approved that a small temporary committee of four was then and there appointed so as to prepare a scheme and to convoke a general meeting of the entire profession. This meeting took place on Oct 6th following and 18 practitioners attended. The proposed rules then submitted were very short and simple, but they nevertheless gave rise to a lengthy discussion, and this somewhat ardent debate served to reveal the need of an organisation on the lines proposed, and it also showed the eagerness that prevailed among the Gateshead practitioners to take part in such a movement. No line of policy was indicated beyond the decision that the new association was not to be a scientific society but was to deal exclusively with economical and ethical questions. Even at this early period it was agreed that there should be a black list, and that when the association adopted a line of policy any member who did not carry out such a policy should be expelled. After a long discussion the rules were adopted and the Gateshead Medical Association was formally constituted. Dr. William Mearns was elected its president and Dr Alfred Cox its honorary secretary and treasurer, and one member was added to these two so as to form an executive. For about two years these three gentlemen did all the executive work of the association. Simplicity, the avoidance of all complications in management, was their constant aim.

---

[1] THE LANCET, March 23rd, 1901, pp. 854 and 878

The general situation at that time—namely, towards the end of the year 1896—was not complicated. The town was not troubled by provident dispensaries or medical aid associations. There was, however, the threat that small business insurance companies including medical aid as a sort of decoy duck might be introduced at Gateshead, and the friendly societies were anxious to create female lodges. The first line of policy agreed upon was that the association should resist any attempt to make matters worse. Thus, early in the proceedings a resolution was passed by which all the members pledged themselves not to accept the post of medical officer for a female lodge of any friendly society. Then at the second meeting held by the association, on Dec. 1st, 1896, it was decided not to take any juvenile lodges unless the juveniles paid at the same rates as the adults. This was a bold decision, for at Darlington and other neighbouring towns there were juvenile lodges in existence where the children were paid for at the rate of only 1*s*. 6*d* per annum.

At this time the Rechabites had approached their medical officer and asked him to take the families of the members for 2*d*. per week, which, together with the 3*s*. per annum the member himself paid, would make 11*s* 8*d*. per annum for the entire family. These families also were to be accepted without any sort of medical examination and might therefore include chronic invalids. The medical officer in question had refused these terms and had consequently been discharged. This constituted the first practical problem with which the newly-formed medical association had to deal. 23 members were present when this question was discussed and they unanimously adopted a resolution stating that, in view of the fact that the position of medical officer to a lodge was accepted mainly as a means of securing an introduction to the families of the members, no member of the association should consent to act as medical officer to a lodge which had a family club attached to it. The Rechabites now set to work and canvassed all the medical practitioners established at Gateshead. Some half-dozen enthusiastic members of the Gateshead Medical Association, however, had been even more active. Between the first and the second meeting held by this association they had sent circulars or paid personal visits to all the practitioners in the town and had succeeded in enrolling every medical man as a member of the association, and consequently these all rejected the overtures made by the Rechabites. More than this, the Rechabites having discharged their medical officer, the rule that no new appointment was to be accepted on the old terms now came into force; therefore not only did the Gateshead practitioners refuse to have anything to do with the family clubs but they would no longer attend the adult male Rechabites for 3*s*. a year as formerly, and the latter were compelled to pay their new medical officer 4*s*. a year. The fact that they did not return to their old medical officer did not cause any difficulty, as the latter was not anxious to continue this sort of work—indeed, their new officer was also tired of it at the end of three years and resigned his office. Having thus again to change their medical officer the Rechabites made another effort to introduce family clubs. They thought that after a lapse of three years the discipline of the medical association might have become less rigorous, and at first it seemed as if this was the case, for a practitioner did accept their offers. Of course remonstrances were made, and this gentleman explained that he had forgotten that the matter had been discussed three years previously, but he would at once conform to the decision then taken. He therefore wrote to the Rechabites and gave in his resignation, explaining that he could not act against his fellow-members of the profession. In face of this failure the Rechabites definitely abandoned all hope of establishing family clubs and kept the medical officer they had just appointed, paying him 4*s*. to attend only to their adult male subscribers.

To return to the meeting held on Dec. 1st, 1896. Mr. J. Todd then introduced the whole question of friendly society work, pointing out that the 3*s*. per annum that their members paid for medical attendance was not enough. All agreed to this, but there was considerable disagreement as to what should be done. The more buoyant were for immediately organising a general strike against the friendly societies, while others were more timid and suggested careful and patient preparation, and fears were expressed that the friendly societies would establish a medical institute and employ a medical man exclusively as their servant. Ultimately it was decided that a circular should be sent to all the friendly societies asking them to appoint a deputation to discuss the question of remuneration in a friendly manner with the representatives of the medical profession. Then it was discovered that there was no list existing of these societies and no one knew how many there were. Consequently, it was decided that everyone should send circulars to those societies with which he was personally acquainted and thus it was ultimately ascertained that there were 92 or 93 lodges in the town. It was subsequently agreed to urge that medical officers should not be dismissed without due notice. As matters then stood medical officers were re-elected every six months, but if not re-elected they were summarily dismissed.

It was in March following that 60, or about two-thirds, of the lodges sent delegates to meet the representatives of the medical profession. The other lodges took no notice of the circular which they had received. There were nine medical men present and about 120 delegates of the friendly societies. The latter listened carefully to the statements made by the medical practitioners. The discussion that followed was amicable, but the men firmly adhered to their belief that 3*s*. a year was a sufficient payment. Several among them, it is true, recognised that by itself it would be insufficient, but that this was more than compensated by the advantage of attending for ordinary fees the families of the members. It was, however, admitted that when the medical officers complained of being dismissed without notice they had brought forward a genuine grievance.

Subsequently the friendly societies held a meeting among themselves to discuss the points raised by the medical men, and they then decided in a formal manner that they could not see their way to increase the subscription for medical attendance to 4*s*. In face of this refusal the members of the Gateshead Medical Association were about evenly divided, one half urging a strike while the others wanted to follow a more prudent course. The latter policy was adopted and the members contented themselves with signing a pledge that if a lodge changed its medical officer or a new lodge came into existence they would not accept the new appointment for less than 4*s*. Some of the members, however, decided to ask for the increase at once. Some were successful, some failed altogether, and some obtained half of their demand—namely, an increase from 3*s*. to 3*s*. 6*d*. per year instead of 4*s*. Altogether there are now of the old and new lodges about 10 or 12 which pay the 4*s.* Some of the younger practitioners objected to the policy pursued on the ground that it gave them no prospect of getting an appointment, as the lodges would prefer to retain their old medical officers at 3*s.* rather than to engage a new medical officer at 4*s.* The young practitioner and the new-comer thus seemed to labour under a double disadvantage. There was the natural and legitimate disadvantage of his position as a junior practitioner and the artificially imposed disadvantage that he must charge 4*s.* for work which his seniors did for 3*s.* Fortunately actual experience showed that when a lodge was dissatisfied it was not the question of having to pay 1*s.* more that prevented them from changing their medical officer. The normal rate of vacancies was not altered, though every such change had to be followed by increasing the annual subscription from 3*s.* to 4*s.*

The next step taken was to establish a hard and-fast rule where none had previously existed that a charge of at least 6*d.* should be made for all extra certificates given. During the year 1898 another lodge had occasion to change its medical officer. As a medical practitioner had just established himself in the town only a few days previously and did not even know that the medical men of Gateshead had formed an association the lodge approached him. He was only just starting practice, so he willingly accepted the lodge at the lower terms; but he was soon informed of the situation and, to his honour be it said, he at once resigned his post, saying that he would never do anything that was against the interests of his own profession. The lodge, thus disappointed, now sought for and found another weak point in the armour of the Gateshead Medical Association. One of the members of the association had a branch practice at a colliery outside Gateshead. His assistant started practice on his own account near this colliery, and tried to get the miners to be his patients. This was considered to be so unprofessional that several members of the Gateshead Medical Association threatened to resign if this individual was accepted as a member of their organisation. Thus it happens that there is just one medical practitioner in the neighbourhood of Gateshead who is not a member of the Gateshead Medical Association. The lodge thereupon fell back upon this one practitioner, but though he accepted their terms they soon found that he lived too far away to attend properly upon their members, so that they had to give him up and were compelled finally to appoint a member of the Gateshead Medical Association and to pay him the 4*s.* This was the last attempt at resistance. On one subsequent occasion a member of the association by mistake offered to take a lodge at 3*s.* 6*d.*, but, discovering his error, he at once wrote to say that he would not take less than 4*s.* In the meanwhile, however, the lodge had met and some of the members voted against him. Thus it will be seen that the workmen themselves are beginning to understand, and to approve of, the position taken up by the organised members of the medical profession. This is an important, a significant, and a hopeful incident.

The National Deposit Friendly Society sought to establish a branch at Gateshead just about the same time as the Medical Association was formed. Early in 1897 the medical practitioners discussed this society at length. Some of the members thought that it was a fair society because it did not pay a fixed yearly sum and allowed its subscribers to select their medical attendant. On the other hand, it was objected that there was no wage-limit and that the National Deposit Friendly Society appealed to tradesmen rather than to workmen. Its general introduction, it was said, would tend to lower medical fees; then it was a comparatively new society, and there was no need of yet another organisation seeking to act as an intermediary, a third party, between the medical men and their patients. It was therefore decided not to accept their terms. The National Deposit Friendly Society nevertheless sent agents who endeavoured by every means to make the medical men reconsider their decision. They proposed that the medical practitioners should charge whatever fees they thought proper and the members would pay half and the society the other half. This, however, meant that the medical practitioners must first sign the documents of the society, which would be shown to prove that the medical men approved of the institution. Finally, it was resolved that no signatures should be given and no terms accepted, and that if any members of the National Deposit Friendly Society applied for medical advice they must be treated as ordinary private patients.

The next question raised was that of the family clubs privately organised by the medical practitioners themselves who employ collectors for the weekly subscription. The terms were the same as for the surrounding collieries—namely, 6*d.* per fortnight per family. As the County of Durham Medical Union had now been formed and was moving in the matter the Gateshead Medical Association also determined to raise the subscription to 9*d.* per fortnight. One member, however, who had just bought a practice which comprised such a club, said he did not feel justified in making this increase; and an exception was made on his behalf. This was perhaps a mistake, for it tended to create a bad precedent. Still a compromise was preferred to the losing of a member who after all was not underselling any of the other members, for he agreed not to take new subscribers at less than 9*d.* As these subscribers had no organisation of their own they could not resist. If they refused to pay the 9*d.* they could not find any other practitioner who would accept less, so the increase was easily obtained. For one out of the three or four Gateshead practitioners who attend to the neighbouring collieries that meant an increase of £150 a year to his income; and thus it became more and more evident that it was well worth while to unite and to organise the members of the profession.

Early in the year 1898 the Gateshead Medical Association resolved that it would have nothing to do with medical aid organised by financial insurance companies. All its members who had appointments in the service of these companies were called upon to give them up. This they did and without hesitation; but this did not entail any serious loss as fortunately these companies had only a feeble hold upon the town. At the same time, two or three quarrels broke out between some of the practitioners of Gateshead. The association at once took up these matters of dispute, argued out all the causes of disagreement, brought the disputants together, persuaded them to shake hands, and so put an end to all further wrangling. Then there were two cases in which the association was able to bring in the Medical Defence Union. One of the members was ill and he had reason to suspect that his locum-tenent, whom he had paid as a fully qualified assistant, was nevertheless not qualified. On leaving this assistant put up his plate in another part of the town. He was therefore invited to join the association, but refused. With the aid of the Medical Defence Union it was ultimately found that he had no qualification but was personating his brother who was qualified. A warrant was taken out for his arrest, but he escaped before it could be served on him. At about the same time two members of the Medical Association complained that a practitioner had been imported by some miners to attend to their families for 6*d.* instead of 9*d.* per fortnight and that he was employing an unqualified assistant. This assistant was living at a distance of a mile and a half from his employer and was doing full branch work, including midwifery. Again with the help of the Medical Defence Union, the practitioner was brought up before the General Medical Council and was severely reprimanded.

There is sometimes a feeling against the principle of preparing a black list of patients who do not pay their medical bills. But at Gateshead this list has proved a great success and there have been two editions. It is only sent to those who contribute to it and some of the practitioners do not take the trouble to look through their books and to send in names. Nevertheless, the amount of bad debts has been very much reduced by the black list, even though it be but an incomplete list.

On one or two occasions the Gateshead Medical Association has approached the corporation in relation to sanitary matters. Thus it memorialised the local authorities on the question of a public disinfector and urged that a disinfecting station should be established. This was ultimately done and the town council expressed its thanks to the Gateshead Medical Association for the advice that it had given on this subject. Such medical organisations might certainly greatly assist the medical officer of health in bringing pressure to bear so as to induce local authorities to take in hand necessary sanitary reforms. The Gateshead Medical Association also memorialised the General Medical Council so as to obtain clearer indications as to the position taken up by that authority in regard to unqualified assistants. The rule on this subject is open to several interpretations. The resolution of the General Medical Council, the Gateshead practitioners maintain, admits pupils, midwives, and dressers acting under supervision. The members of the Gateshead Medical Association showed by their discussions that they did not understand the practical bearings of this resolution, and the formal reply which they received from the General Medical Council did not help to enlighten them. They are all opposed to the legalising of the position of midwives and the granting of diplomas to opticians Then the Gateshead Medical Association managed to organise a meeting at which the Direct Representatives of the profession on the General Medical Council were present and discussed various subjects, but more especially the question of registering midwives. This meeting was the first occasion on which the three Direct Representatives for England met on the same platform The meeting took place before the Conference on Medical Organisation which met at Manchester in May, 1900 At this latter gathering the Gateshead Medical Association was well represented and introduced two of the principal resolutions, which pressed the need for concentration and urged that the constitution of the British Medical Association should be so reformed as to enable it to group together the medical organisations that deal with economical and ethical problems The Gateshead Medical Association also had occasion to make representations to the borough and county members of Parliament with regard to medical questions that were about to be discussed in the House of Commons. Finally, when the war broke out the members of the association offered their services gratuitously to the families of soldiers, sailors, or reservists who were in [illegible] e of the members went out to [illegible] isation was going on several practitioners came and established themselves at Gateshead Since 1896 there have been eight or nine new-comers. As soon as they arrive the secretary calls upon them, gives them a copy of the rules, explains the necessity of organisation, and relates all that has been accomplished and the advantages that have resulted therefrom. This has been done so well and so promptly that all the newly established practitioners have joined the Gateshead Medical Association, so that now the society has 45 members, and there is only the one practitioner who has been mentioned above who is not enrolled. The cordial relations prevailing among the members have been much encouraged by paying due attention to the social side of the organisation. Four annual dinners and two picnics have been held, and everything is done to promote conviviality and friendly social intercourse, thus seeking to obliterate the feelings of competition and rivalry which tend to disunite the members of the profession.

Apart from its own local work the Gateshead Medical Association has been very active in propagating its principles in the surrounding districts From Australia, America, and many British towns letters have been received asking for advice and for copies of the rules, which have been always readily forwarded Sometimes the president, sometimes the secretary, and, on other occasions, both president and secretary, have gone to inaugural meetings when, in some other locality, efforts were made to form a medical union. The practitioners at South Shields were the first to organise a society after that of Gateshead had been constituted, as has been already explained, and their earlier meetings were attended by Dr. Cox from Gateshead. The energetic secretary of the Gateshead Medical Association also helped to form the Newcastle Medical Ethical Society and the Mid-Tyne Medical Association at Wallsend Both of these societies have now been merged in the Northumberland and Newcastle Medical Association. Altogether the Gateshead Medical Association has shown that its members possess a broad grasp of the interests at stake and that they are not tied down by a narrow feeling of parochialism, but that they are ready to take their part in a general as well as in a purely local movement Thus the association not only participated in the Conference on Medical Organisation held at Manchester but the secretary, Dr. Cox, was a member of the International Congress of Deontology and Medical Ethics held at Paris last year. Undoubtedly the medical practitioners of Gateshead have set a good example. They have succeeded in securing practical unanimity, they have been prudent in their policy, and they have been eminently successful in their efforts.

Gateshead, March 25th

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Ladies' Charity and Lying in Hospital: The School of Midwifery.

FROM the last annual report it appears that the number of cases admitted to the hospital during the year 1900 was 204 In eight of these the patients were single girls (first cases) admitted under the new rule During the year there were five deaths of mothers in the districts and one in the hospital, and of these six deaths only one was due to maternity. 24 students took their practical midwifery course with the charity during the year—an evidence that the arrangements made by the board of the hospital with University College to provide for this branch of the medical curriculum is meeting the end in view Formerly Liverpool students were compelled to take out their course of practical midwifery in Dublin 35 pupil midwives were trained in the School of Midwifery during the year and received certificates. 18 monthly nurses were trained by the matron in the hospital and received certificates of competency. The expenditure for the year exceeded the ordinary income by £694 Comparing the present position of the charity with that of 10 years ago it appeared that while great advances had been made in the treatment of the patients, both indoor and outdoor, in the training and efficiency of the staff of midwives, the provision of extra nursing for patients, and the benefits conferred on the community through the training of medical students, midwives, &c, the subscriptions and donations had decreased and the charity had now to face each year a serious deficit which had to be met by drawing upon invested funds The charity is one which ought to appeal strongly to the public; it has kept well abreast with the times and has done valuable work.

Liverpool and the Prevention of Tuberculosis.

At the second annual meeting of the National Association for the Prevention of Consumption and other Forms of Tuberculosis held in London, the Earl of Derby, who was in the chair, alluded to the great progress which had been made in Liverpool in regard to the prevention of tuberculosis The corporation had within the last month adopted voluntary notification of phthisis and had also established depôts for the supply of sterilised milk Two sanatoria for open-air treatment were in course of erection and one, it was hoped, would be ready for patients in July. The council of the association drew attention to the satisfactory result of the three months' experiment recently made by the three Liverpool boards of guardians, which had adopted the plan of making it a condition of granting outdoor relief that the family should remove to more wholesome quarters and had adopted simple but efficient precautions for the prevention of infection To meet the cost of removal and also of more adequate nourishment for the patient they granted relief at a special scale.

The Liverpool Infirmary for Children.

At the annual meeting of the subscribers to the Infirmary for Children the chairman made the startling statement that the building was found to be insanitary and that there was no possibility of improving it so as to enable it to conform to modern ideas of hospital construction. One of the most serious drawbacks was the existence of the out-patient room in the same block as the wards which were in consequence exposed to the risk of infection in many ways. The committee therefore recommended the erection of a new building and the separation of the out patient department from the main building.

The New Botanical Laboratory for University College, Liverpool

The new botanical laboratory (the munificent gift of Mr. W. P. Hartley) in course of erection in Brownlow-street is rapidly approaching completion and will be formally inaugurated in October next The design is highly artistic and the new laboratory will be a handsome and imposing addition to the existing buildings in Brownlow-street, most of which are in connexion with University College.

The Sanitation of West Africa.

Mr Chamberlain received a deputation from the Chambers of Commerce of London, Liverpool, and Manchester and the Liverpool School of Tropical Medicine, at the Colonial Office, on the sanitation of West African coast towns. The Liverpool School of Tropical Medicine was represented by Mr. Alfred L. Jones (the chairman), Professor Rubert W. Boyce, Major Ronald Ross (late I.M.S.), Dr. H. E. Annett, and Dr. R. Fielding-Ould. The points submitted to Mr. Chamberlain included proposals that the governments of the various colonies on the west coast of Africa should be invited to prepare schemes, with estimates, for the complete organisation of sanitation in the coast ports in the vicinity of quarters permanently occupied by any considerable number of Europeans, especially with regard to (1) removal and disposal of refuse, (2) complete surface drainage of the soil and removal of bush and undergrowth, (3) removal of native huts where their presence is a menace to the health of Europeans, and (4) the institution of sanitary regulations for observance by the public within the areas indicated above; that at the same time a sanitary commissioner, or sanitary commissioners, should be appointed by the Colonial Office to visit repeatedly all the said colonies and to report to the Secretary of State the condition of sanitation in each colony and the steps being taken to improve it by the local authorities; that where new settlements are being planned quarters for Europeans shall be arranged as far as possible on the Indian cantonment model; and that special regulations shall be made to prevent the overcrowding of such cantonments by the general public. Mr. Chamberlain, in reply, said that the questions of water-supply, sewerage, and the other points to which his attention had been called were receiving the careful consideration of the Government. The question of cost was a serious one, to which they must give anxious consideration, unless they were to get into financial trouble. The points suggested meant no less than a gigantic system of sanitary inspection. If the Government sent out a purely expert scientific expedition they would be handing over practically the decision upon the cost, which was really a point for laymen. Mr. Chamberlain proposed, therefore, that the three chambers of commerce should each appoint one of their number to be a member of such a commission and that a representative from the Colonial Office should accompany it, perhaps as secretary; in addition to the three gentlemen they should also have a scientific expert whom they would nominate. If that view were accepted by the deputation he would refer to this small commission certain questions, the first and most important of all being the sanitation of the colonies and its cost.

March 28th.

WALES AND WESTERN COUNTIES.

(From our own Correspondents.)

Bristol Isolation Hospital.

The medical officer of health (Dr. D. S. Davies) has presented a report to the Bristol Health Committee urging the importance of providing additional accommodation at the isolation hospital at Ham Green. Although the population of Bristol is approaching 350,000 there is provision in the city hospitals for isolating only 100 adult patients, and there ought to be accommodation for at least 300. It is of interest in this connexion to record that until 1886 the Poor-law guardians of Bristol held themselves partially responsible for isolating infected persons and at that time there was accommodation for isolating at one time 120 persons, so that there is actually less accommodation at the present time than there was 15 years ago. The guardians now pay the city authorities £300 a year, in return for which all infected pauper patients are treated in the city isolation hospitals. Bristol cannot afford to be behind its neighbours in this respect. Cardiff since the end of last year has been very well equipped and has a much larger hospital than Bristol to serve a much smaller population.

Sanitation of the Welsh Wells.

The popularity of the Welsh wells is increasing year by year, but it will not continue to do so unless some of the sanitary authorities mend their ways. Dr. W. W. B. Fry, the medical officer of health of Builth, has frequently drawn the attention of the urban district council to the insufficiency of the sewerage of Llanwrtyd where the principal sewer discharges in the middle of the village into the river Irvan, and in the summer when the water is low there must of necessity be considerable nuisance caused. Now that septic tanks and bacterial contact-beds have passed the experimental stage there can be no longer any excuse for any sanitary authority allowing a stream to be polluted in the manner described by Dr. Fry in his last annual report, in which he says that it is scandalous that such a state of things should continue in a health-resort. The inhabitants of the village are to be congratulated upon having as their medical officer of health an official who is willing to speak thus forcibly.

The late Mr. R. Jeffreys Owen.

The death is announced of Mr. Richard Jeffreys Owen, M.R.C.S. Eng., L.R.C.P. Lond., of Llandovery, at the comparatively early age of 43 years. Early in the "eighties" Mr. Owen was house surgeon to the London Hospital and to the Poplar Hospital for Accidents. In 1899 he held the office of Mayor of Llandovery.

Publicans as Sanitary Inspectors.

The rural district council of Chard in Somerset recently elected a licensed victualler as one of their three sanitary inspectors, but the Local Government Board refused to sanction the appointment. In subsequent correspondence upon the matter the Board stated that it was their practice to object to licensed victuallers, house agents, and collectors of rents holding such appointments.

Gloucester General Infirmary and Eye Institution.

The annual meeting of the subscribers to this institution was held on March 28th, under the presidency of Colonel Curtis-Hayward. The medical report stated that during 1900 the in-patients numbered 1306, against 1329 in 1899. There were 8319 out-patients treated, compared with 8200 in the previous year. The financial statement showed that the ordinary expenditure amounted to £7210 and the income to £6956, leaving a deficit of £254.

Bristol Eye Hospital.

The annual meeting of the subscribers to the Bristol Eye Hospital was held on March 26th, under the presidency of the Lord Mayor. The ninetieth annual report, which was read by Mr. Richardson Cross, stated that during 1900 the out-patients numbered 4893, compared with 4975 in 1899. The in-patients numbered 256. The financial statement showed that the balance due to the treasurer had been reduced from £479 to £375. Towards the fund for the recent extension of the hospital £5016 had been received, but there still remained the sum of £1600 to be raised, for which sum the committee strongly appeal. Before the meeting the Duke of Beaufort formally opened the new extension of the hospital.

Bristol Royal Infirmary.

The annual meeting of the subscribers to this institution was held on March 26th, under the presidency of Sir Charles Cave. The medical report stated that 2986 in-patients had been admitted during 1900, compared with 3087 in 1899, and there were 38,671 out-patients treated, as against 39,883 in the previous year. 385 patients were sent to the Queen Victoria Jubilee Convalescent Home at Clifton. The financial statement showed that the total ordinary income amounted to £10,840, compared with £11,479 in 1899. The total ordinary expenditure was £14,925, against £14,393 in the preceding year. The chairman urged the necessity of increased financial help to the infirmary and added that although they had reduced the adverse balance from £13,000 to £7000 it had been done, unfortunately, by the sale of securities. Sir Charles Cave was re-elected president and treasurer for the ensuing year, a dual post which he has held for 21 years.

April 1st.

SCOTLAND.

(From our own Correspondents.)

Edinburgh Royal Infirmary.

At a meeting of the managers of Edinburgh Royal Infirmary held on March 25th Dr. R. Milne Murray and Dr. N. T. Brewis were elected to fill the respective posts of second and third gynæcologists to the institution. There were six candidates for the posts.

Small-pox in Glasgow.

The epidemic appears at last to be in a state of decline. The admissions during the last week show a considerable decrease compared with the last record. The authorities are taking a cheerful view of the future, and there is a general expectation that ere long the city will be reported free from the disease. Among the various criticisms which have been made it has been suggested that the admissions to hospital have included a not inconsiderable number of revaccinated patients. Possibly this rumour has induced the medical officer in his last report to introduce some recent facts bearing on this question. It appears that among the 316 patients in hospital on March 30th there were 39 patients who stated that they had been revaccinated at one time or another, and in 36 of these the date of the operation and of sickening from small-pox was readily ascertainable. A comparison of these dates shows that in every case the interval between revaccination and sickening falls short of the normal period of incubation, so that in every instance the disease had already been contracted before the operation was performed. In the three remaining cases the attack of small-pox followed the act of revaccination at 10, 21, and 28 years respectively. The notes on these three cases are as follows: 1. Female, aged 49 years, admitted March 1st; said to have been revaccinated in 1891. One mark only, however, is visible. The case is an exceedingly mild one. 2. Male, aged 44 years, admitted March 6th. He was revaccinated Feb. 23rd, eight days before sickening. He states that he was also revaccinated successfully in 1880. The attack is of so mild a character that considerable uncertainty at first existed as to the accuracy of the diagnosis. 3. Male, aged 36 years, admitted Feb. 23rd; said to have been revaccinated 28 years ago and two marks are visible. The attack resembles in mildness that of the previous patient. These facts and figures will do something to calm the public mind in face of the statements of the anti-vaccinationists. The latter are showing some tendency to increased activity and have secured Dr. W. R. Hadwen of Gloucester to conduct a lecturing campaign in the various wards of the city.

Glasgow University.

The city authorities are taking much interest in the academic events which are to mark the celebration in June next of the ninth jubilee of the University. At a recent meeting of the magistrates it was decided that a banquet should be given by the corporation to the various distinguished guests who will be present in the city in response to the invitation of the University Court and Senatus.—The examinations for degrees in medicine commence this week. For the first professional the entrants number 147; for the second professional, 137; and for the third professional, 74. These numbers include no less than 39 women candidates.

Microscopical Society of Glasgow.

The last meeting of this society was occupied by a lecture on "The Economic Importance of Bacteria," by Dr. R. M. Buchanan, bacteriologist to the city health department. The application of bacteria to various industries was shown by instances of their ferment-forming capacity, as in the manufacture of alcohol and the preparation of cheese. In agriculture the value of bacteria was illustrated by a description of the power which certain varieties possessed of fixing the free nitrogen of the air and presenting it to plants in a form suitable for their assimilative powers. The lecturer strongly insisted on the economic and national importance of the introduction into various agricultural processes of scientific knowledge and method. The lecture was well illustrated by numerous lantern slides, microscopic preparations, and culture tubes, and Dr. Buchanan was cordially thanked by the society.

April 2nd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Proposed Bacteriological Institute in Dublin.

THE movement in favour of the establishment of a bacteriological institute in Dublin continues to make progress. A conference is about to be held of delegates from many public bodies, colleges, and institutions. At the quarterly meeting of the Dublin Corporation, which took place on April 1st, Sir Thomas Pile moved the adoption of a report of the Public Health Committee recommending the establishment in Dublin of a bacteriological institute. The committee were of opinion that such an institute was much required, and they thought that it should be a national one supported by all the public institutions and sanitary authorities in the country. They understood that it was proposed to establish in Dublin a pathological institute in connexion with all the lunatic asylums of Ireland. As the work of such an institute would be mainly bacteriological the committee thought that one institute would suffice, and the corporation, as the principal supporters of, the largest lunatic asylum in Dublin, must naturally feel interested in all matters pertaining to the pathology of the insane. The committee suggested that the council should express approbation of the proposal to establish a bacteriological institute and should undertake to afford some pecuniary help in establishing and maintaining it. The motion was passed unanimously.

Death of Dr. Arthur K. F. McCutcheon.

Dr. Arthur K. F. McCutcheon died at his residence, 3, Rutland-square, Dublin, on March 27th. He was a graduate in medicine of the University of Dublin, and was elected a Fellow of the Royal College of Physicians of Ireland in 1895 He held the position of physician to the Whitworth Hospital, Drumcondra. His funeral, which took place on March 30th, was attended by the President and Council of the Royal College of Physicians of Ireland. A large and representative gathering of the members of the medical profession was present. The untimely death of Dr. McCutcheon at the comparatively early age of 43 years has caused much grief among his friends.

Richmond, Whitworth, and Hardwicke Hospitals, Dublin.

Mr. Robert D. Joyce has been appointed ophthalmic surgeon to the House of Industry Hospitals, in the room of Dr. Archibald H. Jacob, deceased.

The British Association.

At a meeting held in Belfast on March 29th, the Lord Mayor presiding, a local general committee was appointed to make provision for the reception of the British Association in 1902, in accordance with an invitation accepted from Belfast for that year. A treasurer and three secretaries were also elected.

Belfast Ophthalmic Institution.

At the annual meeting of the friends of this excellent institution, held in Belfast on March 29th, it was reported that 1267 eye cases, 298 ear cases, and 259 throat and nose cases were treated as extern patients. There were also 104 intern patients. Alterations are about to be made which will improve the extern rooms and will provide a new operating theatre. Dr. Victor Fielden has been appointed anæsthetist to the hospital. The High Sheriff of Belfast, who presided, warmly congratulated the senior surgeon (Dr. Walton Browne) on his recovery after his late illness.

Irish University Education.

A series of important resolutions on this question have just been passed by the Ulster Liberal Unionist Association. They approve of the appointment of the Royal Commission to inquire into the circumstances of higher education in Ireland. They urge that the Commission should be composed of men of universally acknowledged eminence in educational and public affairs and who are superior to sectarian and political partisanship. If this is not done the conclusions of the Commission will fail to command respect in any quarter and will *simply* result in intensifying the existing confusion in Irish university conditions. They also recommend that in the interests of commercial, agricultural, and manufacturing industry in Ireland, commercial education should be included as a branch of university work, and that a suitable connexion should be formed between the organised courses of agricultural and technical colleges and the university curriculum in such a manner that work of a scientific character done by students at such colleges might become an avenue to a university degree. They suggest that the proposed Royal Commission should be instructed to take evidence and to report upon the relations existing between the universities and commercial, agricultural, and technical education in Great Britain and in foreign countries, and to recommend in what way such education may be effectively brought within the sphere of university influence in Ireland.

Food Unfit for Human Consumption: Interesting Action at Cork Assizes.

Mrs. Blessing Walis, widow of a solicitor, brought an action before the Lord Chief Justice at the Cork Spring Assizes against Mr. Thomas Russell, fish merchant, for breach of warranty of certain goods—namely, two crabs—and for supplying goods unfit for human food, whereby the plaintiff became dangerously ill. Damages were laid at £1000.

There was a formidable array of counsel for both sides and the case excited very considerable interest. According to the evidence Mrs. Wallis sent her grand-daughter, a Miss Donovan, to Mr. Russell's establishment for two crabs, and one of Mr. Russell's assistants in the course of the sale described the crabs as being sound and good in reply to a question by Miss Donovan. The crabs had been already boiled on Mr. Russell's premises. Miss Donovan took them home and without further dressing she and her grandmother partook of some of the claws at tea. On opening the shells of the bodies of the crabs they were found to contain a brownish fluid. On being removed downstairs the servant ate portions of the claws, but on noticing the contents of the shells threw what remained of the crabs into the ash-pit. After a few hours had elapsed Mrs. Wallis, Miss Donovan, and the servant became very ill and the symptoms of the illness were very similar. Mrs. Wallis suffered from diarrhœa, vomiting, and collapse and was for some time unconscious. Another grand-daughter of Mrs. Wallis hearing of her grandmother's illness arrived on the following morning and on going out to the yard where the remnants of the crabs lay she noticed a distinctly bad odour when some yards away from the crabs. The medical evidence showed that the three patients had been suffering from irritant poisoning. For the defence the man who had sold the crabs to Mr. Russell gave evidence and Mr. Russell was also examined. He deposed that he exercised every care in the selection of the crabs and that he had made inquiries with regard to several others of his customers who had purchased crabs out of the same consignment and that none of them had suffered. The hearing lasted for part of two days and it resulted in a verdict for the plaintiff, the damages being laid at £150. It is stated that an appeal will be lodged by the defendant.

April 2nd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Respiratory Chemistry of Phthisis.

AT the meeting of the Academy of Medicine held on March 19th M. Robin communicated the results of some researches which he had made upon 392 patients with regard to constitutional conditions (*terrain*) predisposing to phthisis. One well-known characteristic of phthisical patients is a loss of organic mineral matters. But there is another which is quite opposed to the ordinarily expressed ideas. It is generally thought that both respiratory changes and hæmatopoiesis are much diminished in phthisis. On the contrary, respiratory exchange is much increased in this disease, and of 162 cases examined this peculiarity was found in all but eight. The respiratory chemistry of phthisis is something quite peculiar. A healthy man consumes per kilogramme of body-weight per minute 107 cubic centimetres of air. For phthisical patients the figures are as follows: men, 192 cubic centimetres and women 225 cubic centimetres. A normal man consumes 5·13 cubic centimetres of oxygen, a phthisical man 8·72 cubic centimetres, and a phthisical woman 10·29 cubic centimetres. A healthy man expires 4·17 of carbon dioxide per kilogramme per minute, a phthisical man expires 8 85 cubic centimetres, and a phthisical woman 7·5 cubic centimetres. A healthy man absorbs 0·85 cubic centimetre of oxygen per kilogramme per minute, a phthisical man 1·87 cubic centimetres, and a phthisical woman 2·5 cubic centimetres. This exaggeration of respiratory exchange exists in a less degree in fibrous tuberculosis. It has been observed in the very earliest stages of the disease long before any auscultatory signs are perceptible. It exists also in the latest stages. It can be definitely stated therefore that in 92 per cent. of phthisical patients the respiratory exchanges are much increased in every stage of the malady. These results hold good in cases of tuberculosis of the bones, but they are not found in tuberculous peritonitis or meningitis or in lupus. In 40 cases of various morbid types the conditions noted differed. In typhoid fever exchange was lessened. In influenza it was slightly increased. Shortly, although in some diseases the respiratory exchange was slightly increased, in no one was the increase comparable with that existing in phthisis. Therefore, in doubtful cases the study of the respiratory chemistry will enable the physician to make a diagnosis at a very early date and in various cases M. Robin and M. Binet have been able to diagnose a tuberculous predisposition (*terrain*). In sundry cases when they noted exaggerated respiratory exchange the patients were attacked by tuberculosis and died. On the contrary, a patient in whom numerous bacilli were found, but whose respiratory exchange was unaltered, recovered. This method of examination may serve to separate patients with a tuberculous history into those who are predisposed to the disease and those who are free from all taint. *Finally, it may be considered that examination of* the respiratory exchange offers a method of the very first rank for making an early diagnosis in cases of tuberculosis.

Helminthiasis in China.

At a meeting of the Academy of Medicine held on March 25th M. Laveran read some notes by Dr. Matignon on helminthiasis in China and its apparent influence in the production of appendicitis. Dr. Matignon remarked on the extreme frequency of intestinal worms in China. Among adult Chinese they were found to exist in 75 out of 100 cases examined, and in Chinese children they were found in 98 out of 100 cases. Among adult Europeans they were found in 25 per cent. of the cases examined. Despite these figures Dr. Matignon during a period of four and a half years saw only one case of appendicitis in a Chinese and not more among 150 Europeans who came under his care. In one young girl and two missionaries he noticed signs resembling those of appendicular colic which were, however, due to tænia. In Northern China appendicitis is completely unknown. The populace is almost completely vegetarian. In Peking and its suburbs the Chinese eat only a small quantity of meat, and that of duck, chicken, mutton, or pork. Their chief articles of food consist of millet, rice, maize, potatoes, and turnips. They also eat unleavened cakes of maize or wheaten flour, cooked by steam. It is very likely due to this *régime* that appendicitis is so rare in China and it may also be the cause why the digestive functions among the Chinese are so regularly performed. Constipation among them is extremely rare.

April 2nd.

Obituary.

JOSEPH FODOR, M.D.,

OF BUDAPEST.

WE sympathise with our Hungarian brethren on the occasion of the great loss they have sustained by the death of Dr. Joseph Fodor, Professor of Hygiene at the University of Budapest. The members and delegates who took part in the Eighth International Congress of Hygiene and Demography will remember the courteous manner in which Professor Fodor received them as President of the Organising Committee, and to him was due in no small degree the undoubted success of the Congress at Budapest.

Joseph Fodor was born in 1843 of noble parents at Lakocsa, in the county of Somogy in Hungary. He studied medicine at Budapest and Vienna and in 1865 graduated as Doctor of Medicine. The next year he filled the post of assistant to Dr. Rupp, Professor of Medical Jurisprudence, and on the recommendation of the late Dr. Markusovszky obtained in 1870 a travelling scholarship from his Government, to become a pupil of Dr. Pettenkofer at Munich and later of Baron Liebig. He worked in the laboratories of Recklinghausen and Flalger in Würzburg and then visited other parts of Germany, Holland, Belgium, and England. In 1870 he returned home and was appointed to the chair of Medical Jurisprudence in the University of Kolosvár in Transylvania; four years later he become professor of hygiene at Budapest. For 28 years he devoted his energies to studies in connexion with sanitation. His work on "Hygienic Investigation of Air, Soil, and Water" was awarded the prize of 200 ducats by the Academy of Sciences of Hungary and was translated into German. He introduced Pettenkofer's principles of hygiene in Hungary and created a school and literature in his country on sound principles of sanitation, the effects of which are now generally felt through the successful efforts of numerous pupils; one of the most distinguished among them was the late Dr. Eugen Farkas, well known to many in England. Thanks to the coöperation of the late Dr. Markusovszky and the patronage of the Minister of State, M. Trefort, sanitation is now placed on a sound basis in Hungary. Whilst joint editor of the medical journal, *Orvosi Hetilap*, Dr. Fodor successfully propounded a scheme that not medical students only, but other undergraduates of the University—namely, law students, engineers, and chemists—should attend a course on the principles of general sanitation. To popularise his scheme he helped to establish a "Society of Sanitation," first mooted by Dr. Markusovszky, and through its organ, *Egészég* (Health), rendered most useful service to the public at large.

Professor Fodor also did good work as member of the Academy of Sciences, holding the position of president of the natural history section and acting as editor of its journal. We find him throughout his life a conscientious labourer in the domain of science: his colleagues knew his worth and accorded to him their appreciation. At the university he attained the highest positions, first as dean of the faculty and finally as rector magnificus. Honours at home and from abroad were heaped upon him; he was nominated ministerial councillor and was decorated by the Sovereign with the Order of the Iron Crown, and he received—and of all his academical distinctions this was the one which he valued most—the LL.D. of the University of Cambridge. In private life Dr. Fodor possessed qualities which endeared him to others—modesty, unselfishness, devotion to friends, and readiness to oblige all who came in contact with him. The tenour of his life, though generally happy, was disturbed by domestic sorrow; he lost his wife after much and prolonged suffering, and also his daughter Madame Gerlóczy; while other private troubles also told considerably upon a not over-strong and highly sensitive constitution.

At the beginning of the present year Professor Fodor suffered from a severe attack of influenza. In due course he was able to go about, but strength was slow in returning. In the first days of March he was again confined to his bed, during which time he had the misfortune to sustain an injury to the left leg which necessitated the removal of the limb at the upper third of the thigh. The stump healed well, but he did not recover entirely from the double shock of injury and amputation. On March 19th death put an end to his sufferings at the comparatively early age of 58 years. He was accorded a public funeral, starting from the palace of the Institute of Public Hygiene; the presence of Ministers of the Crown, of members of the aristocracy and of both Houses of Parliament, of deputations from various public bodies, and of a large concourse of mourners generally, testified to the universal esteem in which the deceased was held. Many friends and patients will feel his loss, but none more than his devoted pupils, who, 100 in number, bearing torches, ranged themselves round the coffin of their beloved master on the journey to his last resting-place.

WILLIAM RICHARD ROGERS, M.D. HEIDL., M.R.C.P. LOND.

DR. WILLIAM RICHARD ROGERS, who recently died at his residence, 26 Upper Baker-street, N.W., was born in 1817 and received his education at University College, London. In early life he travelled a good deal on the continent, for two years "walking the hospitals" in France and Italy, and also visited Tunis. He subsequently came to London and practised for many years in Berners street. He graduated M.D. and D.S. of the University of Heidelberg in 1838 and became a Member of the Royal College of Physicians of London in 1859. He served as physician to the Samaritan Free Hospital for 24 years, being made consulting physician in 1882 and vice-president in 1899. He was for a time consulting surgeon to the Grosvenor Hospital for Women and Children, Vincent-square, Westminster, S.W., and senior physician to the Farringdon General Dispensary. He was the author of several papers on Inflammation and Obstruction of the Cæcum, Inversion of the Uterus, and Ruptured Perineum. Late in life he met some misfortunes, especially through the failure of an insurance office, and his health broke down so that he was obliged to give up practice. He was married to a very talented lady, an artist of some distinction, by whom he had several daughters and two sons, the elder of whom is surgeon in His Majesty's navy. Dr. Rogers was of a rather retiring disposition, but much beloved by his patients and fellow-practitioners—a man without an enemy.

Medical News.

VICTORIA UNIVERSITY.—A degree ceremony was held at the Owens College on March 29th when the following candidates were presented. The candidates from Owens College were presented by Professor Young and those from University and Yorkshire Colleges by Professor Chadwick. The degrees were conferred by the Vice-Chancellor (Principal A. Hopkinson of Owens College). Professor Sinclair, Professor Wild, and Mr. Edward Fiddes were also present.

BACHELOR OF MEDICINE AND OF SURGERY.

John Thomas Bailey, Owens; James William Henry Brown, Yorkshire; Charles William Budden and John Scott Byrne, University; Andrew Campbell Clarke, Charles Hollows Dawson, Theodore Llewellyn Fennell, and Robert Francis Ferris, Owens; Robert Thomas Forster, Yorkshire; James Percy Good, Reginald Gordon, Frederick George Hack, Herbert Shaw Lister, and James McIlraith, Owens; Arthur Francis Martin, Yorkshire; Albert Ramsbottom, Claude William Scott Saberton, Harry Slater, and Thomas Tierney, Owens; Roger Durant Willcocks, University; and Henry Merrill Williamson, Owens.

In the Faculty of Medicine the following candidates have passed in the subjects indicated:—

FINAL EXAMINATION.

Part I.—[illegible] Bolton, Yorksh[illegible] W. H. Canter, [illegible] Yorkshire; [illegible]hnson, C. O. J[illegible]wens; W. L. M[illegible]kshire; E. E. Roberts, University, Frank Sugden, Yorkshire; and S. W. Swindells, Owens.

SECOND EXAMINATION.

A. Anatomy and Physiology.—John Battersby, A. N. Benson, and Alexander Boothroyd, Owens, Alan Boyle and W. E. Brierley, Yorkshire; Howard Buck and Laurence Clay, Owens; Richard Coates, Yorkshire; Thomas Coogan, Owens; Edward Cundall and A. M. Deane, Yorkshire, Douglas Elder, University; J. L. Falconer, Owens; Ernest Gibson, University; Tom Glover, J. W. Hartley, and H. D Haworth, Owens; S. L. Heald, Yorkshire; J. P. Henderson, Arthur Hendry, and W. E. Hewitt, University; Hubert Hodge, Owens, C. A. Hughes, A. D. Hunt, and H. R. Hurter, University, Hamilton Irving and J. M. H. Jones, Owens; G. H. Joseph, George Laurence, and J. T. Lloyd, University; T. W. Lonsdale, Owens; H J. Macvean, Yorkshire; J. de V. Mather and H. J. Moon, Owens, D. J. Mulholland, University; G. G. Parkin, F. G. Pell-Ilderton, R. N. Porter, W. B. Ramsden, and Frank Robinson, Owens; F. H. Salisbury, University; J. L. Schilling and W. G. Scott, Yorkshire; Harold Simms, R. T. Slinger, J. C. Smyth, and R. H. Swindells, Owens; A. B Sykes, University; F. P. S. Thomas, Owens; H. G. Thompson, University; Leonard Thorp, Owens; M. G L. Walker, Yorkshire; and Douglas Wardleworth, S H. West, and E. M. Wilkins, Owens

B. [illegible] N[illegible] J[illegible] Owens; Lancelot Hutchinson, University; Walter Longley, Yorkshire; Hugh McManus and D J. Mulholland, University; C. S. O'Neill, Owens; E. W. Reed, Yorkshire; S. H. Ryan and W. F. Shaw, Owens; I. C. Thorburn, University; and W. F. J. Whitley, Yorkshire.

The University Scholarship was gained by H. D. Haworth (Owens); *proxime accessit*, Alan Boyle (Yorkshire).

THE PREVENTION OF TUBERCULOSIS.—A public meeting was held at Devizes on March 27th, under the presidency of the rector (Rev. J. Watson), in support of the scheme for erecting a sanatorium for consumptives at Winsley, near Bradford-on-Avon. Addresses were delivered by Dr. P. Watson Williams, Dr. L. A. Weatherly, Mr. G. S. A. Waylen, and others, and it was decided to form a local committee consisting of Mr. E. Colston, M.P., the Mayor, the members of the medical profession in Devizes, and others, to take steps for raising the necessary funds.

OVERHEAD DANGERS IN MANCHESTER.—Manchester is exercised in mind on the subject of overhead wires, and a meeting of the special joint committee appointed by the Telephones, Paving, and Tramways Committees of the corporation was held on March 15th to consider the question. It appears that there are 7798 wires over existing lines of tramways and 3781 crossing intended routes of tramways. There are 60 miles of telephone pipes under the streets. They are in cables running from the telephone exchange to buildings in each local area in which subscribers are situate. Each cable is opened out on the top of a building in a local area into short overhead wires connected to the nearest chimneys or corners of buildings in which there are subscribers. The overhead cables are insulated and contain about 104 wires each. The postal telegraph wires are apparently not insulated, as in the city surveyor's report it is said that the danger from these when crossing over tramway routes "would be reduced by enclosing them in insulated cables." The result of the discussion was that the town clerk was directed to prepare a report showing the legal status of the corporation as regards overhead wires. The sword of Damocles was nothing compared to our modern improvements on that weapon, as witness the Liverpool tragedy.

Fees of Public Vaccinators.—At the meeting of the Chippenham Board of Guardians held on March 18th a letter was received from Mr. J. P. Martin of Box, declining the appointment of public vaccinator for that parish at the fee of 5*s*. per case. The guardians decided to ask Mr. Martin what remuneration he would consider to be reasonable.

Western Counties Veterinary Association.—The annual meeting of this association was held at Exeter on March 28th under the presidency of Mr. T. G. Bond. Mr. John Dunstan read an interesting paper on Bacteriology in its relation to Veterinary Science and a discussion followed. Mr. R. Penhale was elected president for the ensuing year.

Superannuation Allowance.—Mr. B. Simmons, formerly medical officer of the Wotton-under-Edge (Gloucestershire) district of the Dursley Union, has been granted a superannuation allowance of £56 per annum.

Vaccination Fees.—At the last meeting of the Liskeard Board of Guardians it was reported that the vaccination fees amounted to £42 in 1899 and to £183 in 1900.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Nursing in Irish Poor-law Institutions.

When the House of Lords meets after the Easter Vacation, Lord Monteagle of Brandon will raise the question of nursing in workhouse infirmaries and fever hospitals in Ireland and will move for a return on the subject.

Hours of Labour in Shops.

The Committee of the House of Lords on the hours of labour in shops are accumulating a large body of evidence in favour of earlier closing and Lord Avebury's Bill. Witness after witness has stated that no more is to be hoped for from voluntary effort and that legislation is absolutely essential in existing circumstances. At a recent meeting of the Committee a letter was read from Professor J. G. McKendrick of Glasgow in which he said that he has no doubt whatever that the present long hours and confinement of shop assistants are injurious to health, and also one from Dr. D. Yellowlees of the same city saying that he was quite sure that the unreasonably long hours and close confinement of shop assistants are a great evil and are often not only a great hardship but very injurious physically, mentally, and morally.

HOUSE OF COMMONS.

Thursday, March 28th.

The London Water Question.

Dr. Macnamara asked the President of the Local Government Board whether he would place the text of his proposals respecting London water before the House before the close of the present session so that they might be duly considered by the people of London and the extra municipal areas affected during the Parliamentary recess.—Mr. Long: No, sir; I am unable to assent to the suggestion.

Factory and Workshop Legislation.

At this sitting Mr. Ritchie introduced two Bills, one to amend and the other to consolidate the Factory and Workshops Acts. In explaining the former he said on the subject of regulations for dangerous trades that under the present law there might be many arbitrations with respect to the orders of the Secretary of State. That was proposed to be abolished by the Bill of his predecessor (Sir Matthew White Ridley) last session, who proposed that the regulations should be referred to a referee, who should give his decision, which would be binding upon the Secretary of State in the sense that he must either comply with the decision or abandon the regulations altogether and substitute new ones. For his (Mr. Ritchie's) part he thought that there were strong objections to this principle of arbitration. He did not think it was right that the responsibility should be taken off the shoulders of the Secretary of State and put upon those of an irresponsible outsider. He proposed, therefore, that the Secretary of State should be responsible for making the rules relating to dangerous trades, subject to two conditions—first, that he should be bound to make the fullest inquiries and to receive evidence in public; and, secondly, that the rules should lie on the table of both Houses of Parliament for six weeks before they took effect. There was another important modification. The present state of the law relating to laundries was unsatisfactory and confused. He proposed to apply to laundries the provisions of the Factory Acts, preserving the existing distribution of hours. There was another important alteration with regard to laundries. Last year's Bill excepted the inmates of any institution conducted in good faith for charitable purposes. This exception, in his view, was indefensible. These laundries ought not to be worked upon conditions other than those imposed upon ordinary laundries, with which they, in many cases, competed If they were not so worked they had nothing to fear from the application of the Act to them, and, accordingly, he proposed to bring them within the Act. He proposed to insert special provisions to meet the objections which had been expressed to the inclusion of religious institutions.—Both Bills were read a first time.

Friday, March 29th.

Plague at Cape Town.

Sir Walter Foster asked the Secretary of State for War whether, in view of the increase of plague at Cape Town and the danger of importing the disease into this country, he would direct that all military invalids and soldiers arriving at English ports in ships on which any case of plague had occurred should be isolated and kept under observation for a sufficient period before being allowed to go to their homes or to military camps —Mr. Brodrick replied that instructions to this effect were issued on March 22nd to all concerned.

Monday, April 1st.

Army Medical Officers and the Age of Recruits.

Mr. Pirie asked the Secretary of State for War, with reference to ascertaining the correct ages of recruits and the evils of the existing system, if he would state in what respect the oath of allegiance taken by the recruit on attestation was an oath as to correctness of his age, and if he would consider the advisability of altering the oath so as to make it refer more directly to this point and at the same time to include among punishable offences any false statement of age on his part, if he could state why more care was not exercised by the army medical officers in their duty in this respect, and whether in future neglect as to this on their part would be dealt with more severely; and who was the medical officer responsible for the enlisting as a full-grown private soldier of George H. Over, who was only 14 years old, and whether the officer had been reprimanded.—Lord Stanley replied: The oath of allegiance has nothing whatever to do with the matter. On attestation the soldier signs his name to a declaration that his answers to various questions are true, amongst which is a question as to age. I am advised that a conviction for making a false statement as to age cannot be obtained. There is no reason to suppose that medical officers are careless on the point of age and in this particular case the officer does not appear to have been to blame as the recruit was well grown.

Standards for Milk and Cream.

Mr. Strachey asked the First Lord of the Treasury whether he could say what opportunity there would be for the House to consider the report and recommendations of the Departmental Committee of the Board of Agriculture in reference to fixing standards for milk, cream, and separated milk before they were adopted —Mr. Balfour replied: I understand that the departmental committee to which the hon. member refers reported about a fortnight ago and that my right hon. friend at the head of the Board of Agriculture (Mr. Hanbury) intends to give a reasonable time for representations to be made by those interested as to the mode in which the report should be dealt with. I do not think that a specific opportunity could or should be given to the House for dealing with a matter within the discretion of the department and vested in it by statute.

Isolation Hospitals Bill.

This Bill to improve the position of county councils with regard to the provision of isolation hospitals was read a second time and referred to the Standing Committee on Law. Mr. C. Hobhouse took exception to some of the clauses and Mr. Walter Long, President of the Local Government Board, explained to him that the Bill had been framed by the County Councils Association and all that had been done by his department was to make certain slight alterations which had received the approval of the association. The sole object of the Bill, Mr. Long added, was to enable county councils to do work in the direction of providing isolation hospitals which they could not do in the existing state of the law.—Sir Walter Foster expressed his approval of the measure.

Cremation Bill.

Sir Walter Foster moved the second reading of the Cremation Bill, a measure which has already passed through all its stages in the House of Lords. He explained that it was permissive in its character and gave power to local authorities to erect crematoria for the use of the locality, subject to the approval of the Local Government Board, and under regulations which had been sanctioned by the Home Office.—Mr. Ritchie said that the Home Office raised no objection to the general principle of the Bill. No doubt at one time cremation was regarded with some suspicion, but public opinion on the subject had considerably advanced of late years. When the Bill reached the Committee stage it would be their business to see that proper safeguards were introduced, and with that reservation he offered no opposition to the measure.

The Bill was read a second time and referred to the Standing Committee on Law.

ROYAL COMMISSION ON ARSENICAL POISONING.

Tuesday, March 26th.

The Commission held another meeting to-day in the Town Hall of Manchester, the members present being Sir William S. Church (who presided), Professor Thorpe, and Dr. B. A. Whitelegge.

Dr. J. Dixon Mann, Professor of Forensic Medicine in Owens College, gave evidence as to cases of arsenical poisoning that had come under his observation in hospital and private practice. He explained that he had examined the hair of patients, especially women, and found in it arsenic in amounts varying from half a gramme to two grammes. In one or two cases he found arsenic in the hair and nails without any other symptoms of arsenical poisoning. In many cases h [illegible] indeed, [illegible] patient [illegible] of arse [illegible] tinguisl [illegible] latterly disposed to think that it was possible that there had been small quantities of arsenic in beer, which would account for the widespread neuritis which had been fairly common in hospital practice prior to this epidemic. He had, however, known cases of neuritis in which the patients had taken spirits exclusively. *His recent investigations* had led to the conclusion that arsenic remained much longer in the tissues than he had before thought possible. In one case a woman was in the hospital for 62 days and yet had arsenic present in the tissues. The fact that women had suffered so much more than men was probably due to the want of activity in women. It was a question of elimination and many of these women were chronic alcoholics who did not move about much and whose tissues were not, so to speak, in activity. From the amount of arsenic he had found in cases he would say that there was more arsenic in the beer than had been accounted for by analysis. To make an absolutely exact analysis of beer was a very laborious process and on the whole he thought the amount of arsenic had been under- rather than over-estimated. He could not accept the statement that one- [illegible] would be innocuous.

[illegible] ng Company, Limited, [illegible] ard mainly to the use [illegible] brewers to free their plant from traces of arsenic.

Mr. C. ESTCOURT, analyst to the corporation of Manchester, submitted the results of analyses of beer. He advocated a uniform method of analysis and a standard test for beer, giving as a reason the discrepancies which had appeared in connexion with the present inquiry. He stated that three public analysts examined portions of the same beer and one obtained one twelfth, another one-tenth, and the third one-twenty-fifth of a grain of arsenic per gallon of beer. There were many difficulties under the Public Health Acts in dealing with [illegible] cases postponed for several weeks.

[illegible] to the Lancashire County [illegible] between Nov. 27th and [illegible] on of arsenicated beer [illegible] bottles, and 12,395 half- [illegible] destroyed privately by [illegible] nce Jan. 14th no case of [illegible] fficiently serious to give [illegible] to the end of February [illegible] the matter was that it [illegible] an amount of arsenic [illegible] If the presence of arser [illegible] saw no reason why absol [illegible] position was already adm [illegible] hesitate freely to advertise [illegible] received from medical office [illegible] 138 districts within the administrative county cases of arsenical poisoning had been observed, and information was given of 863 cases and 12 deaths, including two certified by the coroner after inquest. These figures did not, in his opinion, represent the total number of cases of poisoning in the county.

Mr. FRANK SCUDDER, chief assistant to Sir Henry Roscoe, gave the Commission analytical results.

The Commission then adjourned.

FRIDAY, MARCH 29TH.

[illegible] the Town Hall, Manchester, the [illegible] (chairman), Sir WILLIAM S. [illegible]HITELEGGE.

[illegible] e Manchester Royal Infirmary, [illegible] he had made a special study of neuritis and no doubt some of the cases of peripheral neuritis he had formerly seen might have been due to arsenical poisoning. Possibly a [illegible] a grain or over the whole [illegible] rugs Act to stop the sale [illegible] ell expressed the opinion [illegible] ng beer for arsenic.

[illegible] nist, West Gorton, said [illegible] but probably not more [illegible] for such a contamination. [illegible] products used in large quantity and he therefore concluded that they had most probably been the means of introducing the arsenic into the beer and this was found to be the case on testing the sugars. He found the sulphuric acid which was tested not only to contain a large amount of arsenic, but actually to be saturated with the poison. A very small amount of arsenic was found to be present in most of the other brewing materials and it was therefore evident that the arsenical glucose was the chief cause of the outbreak of disease under investigation.

Mr. HENRY WELD-BLUNDELL, chairman of the Cornbrook Brewery Company, and Mr. G. E. COWELL, managing director of Wilson's Brewery, Newton Heath, also gave evidence, and thereafter the Commission adjourned.

SATURDAY, MARCH 30TH.

The Commission held another meeting to-day in the Town Hall, Manchester, with Lord KELVIN in the chair.

Mr. SIGMUND STEIN, consulting chemist, Liverpool, gave the opinion that sulphuric acid should always be a purified acid from whatever source it came and said that it was necessary that there should [illegible] Speaking from long experience of the manufacture of glucose he said that the presence of arsenic in it was the exception and not the rule, and he insisted that if a penalty were imposed by law in all cases where arsenic was *found in glucose manufacturers would see that it* was not present.

Mr. H. SPENCER, of the Inland Revenue Department, in the course of examination said that priming was supposed to add to the briskness of the beer and increase its refreshing qualities. The officers of the department, like everybody else, were very much astonished when they learned that arsenic was being found in beer. If they knew that a brewer was adding something objectionable to his beer it would be the duty of the officers of the department to take cognisance of the fact, report the matter, and await instructions. The brewers had sought to get a return of the duty paid on the tainted beer, and while some cases were pending, others had been settled. The officers of the department had no knowledge whatever of the beer in the cellars of publicans, but the whole of the beer which was supposed to be contaminated and which the brewers presented to the officers of the department *to take an account of* was destroyed under [illegible] were not employed [illegible] purposes and to [illegible] beer was in the brewery.

The Commission then adjourned.

Appointments.

Successful applicants for [illegible] Institutions, and others possessing [illegible] umn, are invited to forward it [illegible] the Sub-Editor, not later than [illegible] of each week, for publication in the next number.

ALLINSON, H. C, M.R C.S., has been appointed Medical Officer of Health, Borough of King's Lynn.

ANDREWS, W. H., L.R.C.P., L.R.C S. Edin., L.F.P.S. Glasg., has been re-appointed District Medical Officer by the Kingsbridge (Devon) Board of Guardians.

BERGMAN, L. H. (in practice before 1878), has been appointed Dentist at the Workhouse Incorporation, Kingston-upon-Hull.

BEVILLE, F. W., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer, the Workhouse, Uxbridge Union, vice L. J. Minter, resigned.

BROADBENT, F., L.R C.P. Edin., M.R.C.S., *has been appointed District* Medical Officer, Lincoln Union

BURGESS, ARTHUR H., M.B, Ch.B., M.Sc., F.R.C.S. Eng., has been appointed Visiting Surgeon to the Manchester Union Hospital, Crumpsall.

[illegible] appointed Surgeon to H.M. Prison, [illegible]

CROSS, R. G., L.R.C.P. Lond., M.R.C S., D P.H., has been appointed District and Workhouse Medical Officer, Petersfield Union, vice C. S. Ticehurst, resigned.

DISMOOR, H. B, L.R.C P. Lond., M.R.C.S., has been appointed Assistant Medical Officer to the Workhouse, and Assistant Medical Superintendent to the Infirmary, Lewisham Union.

EADON, W. F. BAILEY, L.R.C.P., L.R.C.S, L.M. Edin., has been re-appointed Medical Officer for the Second District of the Chipping Sodbury (Gloucestershire) Union.

FORREST, J. G. S., L.R.C.P. Lond., M.R.C.S, has been appointed District Medical Officer to the Corporation of Bury St. Edmunds, vice A. H. Gibbon, resigned

GIMSON, K. C., M.B., B C. Camb., has been appointed Medical Officer to the Bridge School at Witham, Metropolitan Asylum District.

GLEGG, WILFRID, M.D., M.R.C P. Edin, has been appointed Senior Resident Medical Officer to the Throat Hospital, Golden square, London, W.

GRIFFITHS, A. D, M.D. Brux., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Cottage Homes, Isle of Thanet Union

GRÜNBAUM, O. F. F., M.A., B C. Cantab., D Sc. Lond., has been appointed Clinical Pathologist at King's College Hospital, London.

HARRIS, JOHN HENRY, M.R.C S, L.S.A., D P.H. Camb., has been re-appointed District Medical Officer by the Kingsbridge (Devon) Board of Guardians.

HILL, PHILIP EDWARD, M.R.C S., L.S A. Lond., has been appointed Medical Officer of Health for the Crickhowell Combined Districts.

JAMES, W. T., M.B., Ch.B. Edin., has been appointed Assistant Medical Officer to the Infirmary for Children, Myrtle-street, Liverpool.

LLOYD, J. A., L.R.C.P. Lond., M.R.C.S., has been appointed Second Assistant Medical Officer to the Infirmary, Lewisham Union, vice A. Carter, resigned.

LORIMER, J. A., L.R.C.P. Lond., M.R.C.S., has been appointed District Medical Officer, Farnham Union, vice H. Sloman, resigned.

MACFARLAND, R. M. D., M.Ch. Irel., has been appointed District Medical Officer, Lincoln Union, vice T. W. A. Daman, resigned.

NELSON, W. E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Wootton Wawen District, Stratford on-Avon Union, vice J. Arthur, resigned.

O'REILLY, V., M.B., Ch.B. Irel., has been appointed District Medical Officer, Ormskirk Union, vice G. Morris, deceased.

PERDRAU, J. A., L.S.A., has been appointed Second Assistant Medical Officer, the Infirmary, Whitechapel Union, vice H. G. Ellery, resigned.

PINEO, E. G. D., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer of Churchill District, Axbridge Union, vice Dr. Box, resigned.

PRIESTLEY, THOMAS, L.R.C.P. Lond., M.R.C.S., has been appointed District Medical Officer, Sheffield Union, vice J. Somerville, resigned.

RHYS, OWEN L., M.B., Ch.B. Edin., has been appointed Resident Medical Officer to the Infirmary, Cardiff.

SASS, WILFRID, M.R.C.S., L.R.C.P. Lond., has been appointed Junior House Surgeon to the Great Northern Central Hospital, Holloway-road, London.

SHELDON, A. W. S., L.S.A. Lond., has been appointed Assistant Medical Officer at the Workhouse, parish of Nottingham, vice T. H. O'Shaughnessy, resigned.

SMITH, WM. ERSKINE, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the No. 4 District of the Christchurch Union, Hants.

SPARKS, C. E., M.B., B.C. Camb., has been appointed District Medical Officer, Chertsey Union, vice W. V. Robinson, resigned.

STIFF, HAROLD H., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the West London Hospital, Hammersmith-road, W.

TAUNTON, E., L.R.C.P. Lond., M.R.C.S., has been appointed Senior Assistant Medical Officer at the St. Pancras-road Workhouse, Parish of St. Pancras, London, vice T. Evans, resigned.

TELFORD-SMITH, T., M.D. Dubl., D.P.H. Camb., has been appointed District Medical Officer, Wimborne and Cranborne Union, vice C. H. W. Parkinson, resigned.

THOMAS, JOSIAH TELFER, L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer of Health by the Camborne (Cornwall) Urban District Council.

THOMPSON, WALTER, F.R.C.S., has been appointed Honorary Surgeon to the Leeds Public Dispensary.

TICKELL, THOMAS, B.Sc. Lond., has been appointed City Analyst for Exeter.

WATKINS, J. W., M.B., B.Ch. Dubl., has been appointed Medical Officer of Health, Bolsover Urban District, vice T. W. Cole, resigned.

WEBB, WILLIAM HENRY, M.D. Durh., L.R.C.P. Lond., M.R.C.S., L.S.A., has been re-appointed District Medical Officer by the Kingsbridge (Devon) Board of Guardians.

WOOD, A. A., M.B., Ch.B. Vict., has been appointed District Medical Officer, Nuneaton Union, vice A. N. Cookson, deceased.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House Surgeon. Salary £60 per annum, with board and attendance.

BOROUGH HOSPITAL, Birkenhead.—Three Honorary Assistant Medical Officers.

BOROUGH OF LEICESTER.—Medical Officer of Health and Public Analyst. Salary £500 per annum.

BRISTOL GENERAL HOSPITAL.—Casualty Assistant House Surgeon. Salary £50 per annum, with board, residence, &c.

CENTRAL LONDON SICK ASYLUM DISTRICT.—Two First Assistant Medical Officers for Cleveland-street or Hendon. Salary £120 per annum, with board and residence.

CHELSEA INFIRMARY, Cale-street, S.W.—Temporary Second Assistant Medical Officer (male or female). Salary £2 a week, with furnished apartments, rations, washing, coals, and gas.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Pathologist. Salary 100 guineas per annum.

DUNDEE ROYAL INFIRMARY.—Resident Medical Assistant for six months. Salary at the rate of £40 per annum, with board and washing.

FRENCH HOSPITAL AND DISPENSARY, 172, Shaftesbury-avenue, W.C.—Resident Medical Officer, speaking French, unmarried. Salary £80 a year, with full board.

GOVAN DISTRICT ASYLUM, Crookston, near Paisley, N.B.—Senior Assistant Medical Officer. Salary to begin at £150 a year, with rooms, board, laundry, and attendance.

HAMPSTEAD HOSPITAL.—Resident Medical Officer for six months, eligible for re-election. Salary at the rate of £120 per annum, with rooms, coals, and gas.

HEIGHAM HALL ASYLUM Norwich.—Assistant Medical Officer.

HYDROPATHIC ESTABLISHMENT, Limpley Stoke.—Resident Physician, unmarried preferred.

INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House Surgeon. Salary £75 per annum, with residence, board, and washing.

JESSOP HOSPITAL FOR WOMEN, Sheffield.—House Surgeon, unmarried. Salary £75 per annum, with board, lodging, and washing.

LIVERPOOL HOSPITAL FOR CONSUMPTION.—Resident Medical Officer for new Sanatorium. Salary £300 per annum, with board and apartments.

LIVERPOOL STANLEY HOSPITAL.—Senior House Surgeon. Salary £100. Also Junior House Surgeon. Salary £80, with residence, board, &c.

LONDON HOSPITAL, Whitechapel-road, E.—Obstetric Registrar.

MANCHESTER ROYAL INFIRMARY.—Resident Surgical Officer, unmarried, Salary £150 per annum, with board and residence.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon. Honorarium £50 per annum and board.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Ophthalmic Surgeon.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Junior Resident Medical Officer. Salary £60 per annum, with board, attendance, and washing. For six months, eligible for re-election as senior.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Bloomsbury.—Senior and Junior House Physician. Salary respectively £100 and £50 per annum, with board and apartments.

NATIONAL SANATORIUM FOR CONSUMPTION AND DISEASES OF THE CHEST, Bournemouth.—Resident Medical Officer, from April 13th to June 30th. Honorarium for the term £30, with board, residence, and washing (no alcohol provided).

NEWCASTLE-ON-TYNE DISPENSARY.—Two Visiting Medical Assistants. Salary £160 for the first year, and £180 afterwards.

PADDINGTON GREEN CHILDREN'S HOSPITAL, London, W.—House Physician, also House Surgeon, for six months. Salary at the rate of 60 guineas a year, with board and residence.

ROTHERHAM HOSPITAL.—Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing.

ROYAL FREE HOSPITAL, Gray's Inn road, W.C.—House Physician, also Casualty House Surgeon for six months. No salary, but board provided. Also Clinical Pathologist, salary £75 per annum; Assistant Pathologist, salary £25 per annum; and Resident House Physician and Resident House Surgeon. No salary is given to the resident officers, but board, &c., provided. Females only.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—House Physician for six months. Salary at rate of £60 per annum, with furnished apartments, board, and washing.

ROYAL SEA BATHING HOSPITAL, Margate.—Assistant Resident Surgeon. Salary £60 per annum, with board and residence.

SEAMEN'S HOSPITAL SOCIETY ("DREADNOUGHT"), Greenwich, S.E.—House Surgeon. Salary £50 per annum, with board, residence, and washing.

STOCKPORT INFIRMARY.—Junior Assistant House Surgeon for six months. Salary at rate of £24 per annum, with board, washing, and residence.

SWANSEA GENERAL AND EYE HOSPITAL.—Resident Medical Officer. Salary £75 per annum, with board, apartments, washing, and attendance.

UNIVERSITY OF GLASGOW.—Two Examiners in Medicine.

VICTORIA HOSPITAL, Folkestone.—House Surgeon. Salary £100 per annum, with board, residence, and laundry.

VICTORIA WOMEN'S SETTLEMENT DISPENSARY, Liverpool.—Resident Lady Medical Officer.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY.—House Surgeon. Salary £120 per year and £30 per year for dispensing, with furnished apartments and attendance.

WORKHOUSE INFIRMARY, Birmingham.—Assistant Resident Medical Officer. Salary £100 per annum, with furnished apartments, rations (which do not include alcoholic liquors), coals, gas, laundry, and attendance.

Births, Marriages, and Deaths.

BIRTHS.

HINDS.—On March 26th, at The Steyne, Worthing, the wife of Frank Hinds, M.D., of a daughter.

MCKENZIE.—On March 26th, at Glenlyon, Durban, South Africa, the wife of Archibald McKenzie, M.D. Edin., of twin daughters.

MCLAREN.—On March 24th, at Walker-street, Edinburgh, the wife of John Shaw McLaren, F.R.C.S.E., of a son.

WOLFE.—On March 18th, at The Limes, Hoe-street, Walthamstow, N.E., the wife of R. Inglewood Wolfe, Surgeon, of a daughter.

MARRIAGES.

ABBOTT—L'ESTRANGE.—On the 26th of March, at St. Gabriel's Church, Warwick-square, S.W., by the Rev. C. E. L. Beresford Knox, assisted by the Rev. Canon Morris, vicar of the parish, Francis Charles Abbott, M.S. Lond., F.R.C.S., son of the late Rev. Arthur Robert Abbott, to Pauline, third daughter of the late Lieut.-Colonel Harry Peisley L'Estrange, of Moystown, King's County.

CRAMPTON—EDE.—On March 28th, at St. Chrysostom's Church, Manchester, Cecil B. Crampton, M.B., C.M., H.M. Geological Survey, to Freda Carline, third daughter of Frederick C. Ede, of Clarendon-road, C.-on-M., Manchester.

ROWLAND—PLUMER.—On the 28th March, at Shoreham, Sussex, Frederick William Rowland, M.B., B.S. Durh., M.R.C.S., L.R.C.P. Lond., of 6, Waterloo-place, Brighton, to Alice, daughter of Alfred S. Plumer, Esq., of Springwells, Steyning, Sussex.

DEATHS.

DANE.—On March 27th, at Clarendon Lodge, Millbrook, Southampton, Richard Martin Dane, M.D., C.B., Inspector-General of Hospitals, Army Medical Department, retired, aged 87 years.

GROWSE.—On March 30th, at Bildeston, John Lawrence Growse, M.R.C.S., L.S.A., in his 69th year.

MORRIS.—On March 27th, at Hayes, Kent, Thomas Morris, M.D., late of the Stock Exchange, in his 83rd year.

SKENE.—On the 24th March, at Buckley, Cheshire, William Skene, M.D., F.F.P.S. Glasg., L.R.C.S.E., in his 56th year.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

SIXTEENTH CENTURY MEDICINE

As the late John Addington Symonds justly remarks in the introduction to his admirable translation of Benvenuto Cellini's wonderful autobiography, not only was "the vehement ambitious Renaissance artist" a most veracious man, but he was also endowed with more than usual powers of observation. It will therefore be interesting, and may possibly prove instructive as well, to collate the medical matter contained in this unique record of a strenuous and exceptionally stormy career The first medical topic mentioned is the plague, from which disease Cellini believed that he suffered during his early days in Rome:—

> "I had enjoyed a very pleasant night, he says, "and rose upon the hour of breakfast feeling tired, for I had travelled many miles that night [the *travelling* is metaphorical] and was wanting to take food when a crushing headache seized me, several boils appeared on my left arm, together with a carbuncle which showed itself just beyond the palm of the left hand where it joins the wrist. I felt stifled at the heart, and made up my mind for certain that I was a dead man."

Thanks, however, to Cardinal Iacoacci s physician, who applied what are described as "admirable remedies," a great improvement soon set in, and before long the patient was able to announce his complete recovery from "that dreadful sickness" Cellini s next medical trouble was an attack of inflammation of the eyes, so painful that he "scarce could go on living for the torment." The etiology of this affection, as related by the sufferer himself, is somewhat remarkable

> "I am convinced," he said to Pope Clement VII, "that the only cause of this great affliction which has happened to me is Cardinal Salviati Immediately after your Holiness's departure he sent for me and when I presented myself he called my work a stew of onions, adding that he would send me to complete it in a galley, and such was the effect upon me of his knavish words that in my passion I felt my face in flame and so intolerable a heat attacked my eyes that I could not find my own way home Two days afterwards cataracts fell on both my eyes, I quite lost my sight, and have been unable to work at all'

A certain "great gentleman" who was present during Cellini's audience told the Pope that he could free the artist from his infirmity by the following prescription: "Take flower-de-luces, stalk, blossom, and root together, then decoct them over a slack fire, and with the liquid bathe your eyes several times a day; you will most assuredly be cured of that weakness, but see that you purge first and then go forward with the lotion"

Cellini does not tell us whether or not he made use of this aristocratic ordinance, but in his next chapter he discloses the real source of his ophthalmia:—

> "It was true indeed," he says, "that I had got the sickness, the French disease, for it was that, remained in me more than four months dormant before it showed itself, and then it broke out over my whole body at one instant. The doctors would not call it the French disease, albeit I told them why I thought it was that. I went on treating myself according to their methods but derived no benefit. At last, then, I resolved on taking 'the wood' [in a note the translator of the memoirs says: "That is guiacum (*sic*), called by the Italians *legno santo*'] against the advice of the first physicians in Rome, and I took it with the most scrupulous discipline and rules of abstinence that could be thought of The result was that at the end of 50 days I was cured and as sound as a fish in the water."

This wonderful cure, however, was unfortunately more apparent than real When the winter came in Cellini betook himself to shooting in order to "mend his shattered health," exposing himself to wind and water and to staying out in marsh lands after sundown, so that before long he felt a hundred times more ill than he had been before. Once more he placed himself under doctor's orders, attending very carefully to their directions, but instead of mending grew always worse. When he found that "the fever" was increasing he resolved on having again recourse to "the wood" in spite of the opposition of the medical men, who warned him that if he took it while the fever was still on him he would not have a week to live. In this uncompromising pronouncement the physicians were unanimous, but Cellini made up his mind to disobey them. Adopting the same strict regimen as at first, he re-commenced drinking the decoction and in four days' time was wholly rid of fever After 50 more days his health seemed to be perfectly re-established, and when at length he ventured to relax his rigid system of diet he found himself as completely clear of all bodily infirmities as if he had been born anew "I may add," says the artist in conclusion of this episode, "that during my time of severe abstinence I produced finer things and of more exquisite invention than at any other period of my life."

The most serious illness from which Cellini seems ever to have suffered befel him soon after his rehabilitation at the hands of the Pope for his murder of Pompeo, on which occasion, as he tells us, he "walked in procession very honourably between two gentlemen and so got clear at last."

Four days after this ceremony Cellini was suddenly attacked with violent fever accompanied by a sensation of extreme cold, whereupon he forthwith betook himself to bed, having made up his mind that this time at all events he was sure to die. But notwithstanding this presentiment he had the first physicians in Rome called in to attend him, among the number being Francesco Fusconi a man of great age as well as learning, who had been medical attendant to Popes Adrian VI, Clement VII, and Paul III Convinced that his malady was due to an excess of blood in his veins, Cellini had begged one Bernardino, a barber-surgeon, to bleed him, but, curiously enough, the sanguifier refused to do so, and by the time that Maestro Francesco took charge of the case the opportunity for venesection, according to the latter, had gone by Cellini grew rapidly worse:—

> "Nature in me," he says, "was utterly debilitated and undone I had not strength enough to fetch my breath back if it left me, and yet my brain remained as clear and strong as it had been before my illness Nevertheless, although I kept my consciousness, a terrible old man used to come to my bedside and make as though he would drag me by force into a huge boat he had with him"

Several of the sick man's friends having come in to talk with him and comfort him, one of the number, Messer Ludovico, asked him what it was he seemed to see and how the man was shaped. "While I was portraying him in words," says Cellini, "the old man grasped me by the arm and dragged me violently towards him This made me cry out for help, because he was going to fling me down under hatches in his hideous boat. On saying that last word I fell into a terrible swoon and seemed to be sinking into the boat." During this "fainting fit" the patient was very violent, throwing himself about and casting bad words at some of the bystanders whose presence displeased him, but later he lay still like one dead, and after waiting beside him more than an hour the attendants, supposing him to be growing cold, left him for dead Felice, his faithful friend and partner, alone remained, but when three hours more had passed without any change, and the five separate remedies that had been prescribed by Maestro Francesco were all expended, he ran off post-haste to the latter's door and set to knocking with such vigour that he made him rise from his bed. Then, with tears in his eyes, the energetic applicant implored the physician to come to his patient, for in sad truth he believed he was dead. Upon this Maestro Francesco, who was a very choleric man, replied: "My son! Of what use do you think I should be if I came? Do you imagine that if I were to come with my medicine I could blow breath up through his guts [Cellini makes the irate physician employ a still more forcible word] and bring him back to life for you?" When, however, the worthy, though sleepy, old physician saw that the poor young fellow was going off weeping he called him back and gave him an oil wherewith to anoint Cellini s failing pulses and heart, directing him also to pinch the little fingers and toes of the moribund very tightly and to send at once and call him if he should revive. Felice duly carried out his orders but without effect. When day broke all hope was abandoned Directions were given to prepare the dead man's shroud and to set about washing his corpse. Upon this Cellini incontinently regained consciousness and began shouting to Felice to drive away the old man who would keep on tormenting him. Felice promptly approached the bed, making believe to obey and extending protecting arms Cellini seized hold of one and forthwith it seemed to him that the objectionable phantom withdrew overcome by fear He accordingly begged his friend not to leave him for a moment, seeing that the dreadful old creature was manifestly afraid of him. When Maestro Francesco came he declared he had never in all his days seen greater vital force in a man old or young than Cellini exhibited. Then he sat down to write and prescribed perfumes, lotions, unctions, plasters, and a heap of other things of price and rarity, but what really brought the sick man to life is described as "more than 20 leeches applied to his buttocks." Many people are said to have crowded in to behold the miracle of a resuscitated dead man, but, according to the ex ghost himself, what they saw was "a body bored through, bound, and ground to powder."

And yet, in spite of all these wonderful doings and sayings, Cellini's "wretched malady went dragging on and he got but little better. Attendants and visitors vied with each other in their attentions and suggestions on behalf of the sick man, while his chief physician, that most excellent man Maestro Francesco, came four or five times a day He and the other physicians were at the end of their wit and learning"

Cellini was "tormented by thirst," but abstained from drinking in compliance with the strict injunctions of his medical men. One day Felice went out leaving the patient under the care of a servant-maid called Beatrice. This girl, as it happened, "had stolen certain little things of some importance, and in her fear of being detected would have been very glad if her master had died." A great crystal vase was standing hard by full of clear and fresh water:

> "If you will bring it here and let me drink to my heart's content," said Cellini, who was overcome by drouth, "I will give you a new gown. At once the girl ran to fetch the vessel, and carrying it to the bedside she put the brimming margin to my lips. Twice did she allow me to drink my fill, so that in good earnest I swallowed

> more than a flask full (upwards of a quart). Then I covered myself up and immediately began to sweat. In a few moments I fell into a deep sleep."

When Felice returned and learnt what had happened he began to beat the maid so severely that she set to screaming. The noise she made woke Cellini who cried out: "Leave her alone; perhaps when she meant to do me harm she did me more good than you were able to do with all your efforts. She may indeed have saved my life, so lend me a helping hand, for I have sweated, and be quick about it."

This seems to have been the turning point in a somewhat mysterious disease. When Maestro Francesco next came:—

> "That most able man (who was not above owning himself mistaken) exclaimed: 'Oh, power of Nature! She knows what she requires and the physicians know nothing.' Whereupon that simpleton Bernardino made answer: 'If he had drunk another flask he would have been cured on the spot.' Turning to me, says Cellini, Maestro Francesco asked me if I could have drunk more water. 'No!' I replied, 'because I had entirely quenched my thirst.' Then turning to Maestro Bernardino the venerable physician cried: 'Look you now how Nature has taken precisely what she wanted, neither more nor less. In like manner she was asking for what she wanted when the poor young man begged you to bleed him. If you knew that his recovery depended upon his drinking two flasks of water why did you not say so before? You might then have boasted of his cure.' On hearing these words the miserable quack sulkily took himself off and never showed his face again."

Under orders from Maestro Francesco, Cellini was taken with great precautions in a chair, well wrapped up and protected from cold, to a house on Monte Cavallo belonging to Cardinal Cornaro.

> "No sooner had I reached the place," he says, "than I began to vomit, during which there came from my stomach a hairy worm about a quarter of a cubit in length; the hairs were long and the worm was very ugly, speckled of divers colours, green, black, and red. They kept and showed it to the doctor who said he had never seen anything of the sort before."

This serious illness of Cellini lasted during "more than 50 days" in an acute form and a long time passed before he was completely restored to his customary good health. There is no hint to that effect in the memoirs, but it seems possible, if not probable, that the turbulent artist may have been poisoned out of revenge by the adherents of his victim Pompeo, the Milanese jeweller, whom he killed by "two stabs with a poniard in the throat in the midst of 10 men who were guarding him." Be this as it may, save for the present attack, whatever it may have been, Cellini always enjoyed the most robust health, even during his prolonged and cruel imprisonment in a water-logged dungeon, the only other illnesses mentioned in his autobiography being *una febbre efimera* (a fever of one day's duration) brought on by excitement while the casting of his famous statue of Perseus was in progress, and an "indisposition" caused by the unwholesome air at "a very handsome place called Belfiore, close under the city walls" at Ferrara. The way in which Cellini got the better of the last-mentioned sickness is remarkable from more points of view than one. Observing that the domain was haunted by multitudes of peafowl which bred and nested there in a state of freedom the idea came into his head to charge his gun with "a noiseless kind of powder"; then he tracked some of the young birds and every other day shot one which furnished him and his companions with an abundance of meat of such good quality that they speedily shook off their indisposition.

In the matter of accidental injury Cellini did not come off altogether scatheless. While effecting his escape in such a marvellous way from the Castle of Sant' Angelo, where Pope Paul III. had incarcerated him, his "right leg was broken three inches above the heel" (doubtless a case of Pott's fracture). The great hardships he underwent for a considerable time afterwards were little calculated to conduce to such a good ending, but thanks to "Maestro Jacomo of Perugia, a most excellent and able surgeon," who set the bone with much dexterity, the intrepid fugitive eventually recovered perfectly. Once as he was working on a statue of Narcissus Cellini tells how

> "A very fine splinter of steel flew into my right eye and embedded itself so deeply in the pupil that it could not be extracted. I thought for certain that I must lose the sight of the eye, but Maestro Raffaello de' Pilli succeeded in effecting a cure, although he was not called in until several days after the accident. Having obtained a couple of live pigeons he placed me on my back across a table. Then he took the birds and opened a large vein they have beneath the wing, so that the blood gushed out into the injured eye. I felt immediately relieved and in the space of two days the splinter came away and I remained with my vision greatly improved."

Cellini's experience of poisons was, as might be expected, very considerable. While he was the Pope's prisoner an attempt was made, he says, to get rid of him by

> "Mixing pounded diamond with my victuals. Now the diamond," he adds, "is not a poison in any true sense of the word, but its incomparable hardness enables it, unlike ordinary stones, to retain very acute angles. When other stones are pounded that extreme sharpness of edge disappears, the fragments becoming blunt and rounded. The diamond alone preserves its trenchant qualities, wherefore if it chances to enter the stomach together with food the peristaltic motion needed for digestion (*In quel girare che é fanno é cibi*) brings it into contact with the coats of the stomach and the bowels where it sticks, and by the action of fresh food forcing it farther inwards after some time the organs become perforated. Thus eventually death is caused."

According to Cellini, the preservation of his life on this occasion was due to the covetousness of the miscreant who had been hired by his enemy to carry out the nefarious plot. In lieu of the brilliant worth more than 100 crowns which was intrusted to him to pound this individual substituted "a greenish beryl of the value of two carlins, thinking, no doubt, that because it also was a precious stone it would work the same effect as a diamond." Another attempt to poison Cellini took place towards the close of his career, the motive in this case being the sordid one of robbery. The artist having bought a farm from one Piermaria d'Anterigoli, surnamed Lo Sbietta, on condition that at his death the property was to revert to its original owner, the latter, with the assistance of his wife, tried to bring about the purchaser's speedy demise by administering a quantity of "sublimate" in some highly-spiced sauce. The woman, by her assiduity in pressing him to partake of the condiment, fortunately excited the victim's suspicion, and it was also Cellini's "custom to take but little sauce or seasoning with his meat, excepting salt," and so he escaped.

> "The quantity of poison I swallowed," he says, "was not enough to kill me, but exactly sufficed to cleanse me of a mortal viscosity from which I suffered in my stomach and intestines. ...... The poison worked so well that whereas before I took it I had perhaps but three or four years to live, I verily believe now that it has helped me to more than 20 years by bettering my constitution. For this mercy I return thanks to God with greater heartiness than ever; and this proves that a proverb I have sometimes heard spoken is true, which runs as follows: 'God sends us evil that may work us good.'"

"MEMORIAL TO THE LATE DR. ARCHIBALD HAMILTON JACOB."

Amount already announced in The Lancet—£339 3*s*. 9*d*.

	£	*s*.	*d*.
Dr. A. Johnston	2	2	0
Mr. W. O'M. Knott ...	1	1	0
Mr. W. C. S. Burney...	1	1	0
Mr. J. McDonnell ...	1	1	0
Mr. F. P. MacLaughlin	1	1	0
Dr. T. J. Moore	1	1	0
Mr. L. McDermott ...	1	1	0
Mr. E. Lapper	1	1	0
Mr. W. R. McDermott	1	1	0
Mr. C. R. C. Tichborne ...	2	2	0
Hibernicus (per Mr. Tindall)	2	0	0
Mr. J. E. Burton	2	2	0
Mr. G. Pierce	1	1	0
Mr. R. G. O'Flaherty ...	1	1	0
J., Dublin	1	0	0
Mr. D. McGuiry	0	10	6

Honorary treasurers: Sir Charles A. Cameron, C.B., 51, Pembroke-road, Dublin; and Mr. L. H. Ormsby, Vice-President of the Royal College of Surgeons in Ireland, 92, Merrion-square, Dublin. Honorary Secretary: Mr. George F. Blake, Royal College of Surgeons, Dublin. As the list must shortly close intending subscribers should send in their subscriptions as soon as possible.

"PLACE OF RESIDENCE FOR A RETIRED SURGEON."

To the Editors of The Lancet.

Sirs,—Will you permit me, in reply to "P. P.," whose communication appeared in The Lancet of March 30th, p. 937, to say that having now practically retired I find Bournemouth exceedingly pleasant, physically and socially. Branksome is nearly equally desirable, and rents and taxes are very much cheaper. It is quite as healthy, there is more country as well as the advantage of the park, and it is within walking distance of Poole Harbour and shipping. You can get into Bournemouth from Branksome by rail or tram in about 10 minutes for a few pence.

I am, Sirs, yours faithfully,
Bournemouth, March 30th, 1901. F. H. A.

WANTED—A HOME.

To the Editors of The Lancet.

Sirs,—Can any of your readers recommend a home for a girl, aged 16 years, of weak intellect? The friends can pay a small fee.

I am, Sirs, yours faithfully,
Ash Cottage, Hindley, March 30th, 1901. J. Chronnell.

THE PRINCE CHRISTIAN VICTOR MEMORIAL FUND.

The following sums, additional to those which have already been announced in the daily press, have been received for the Prince Christian Victor Memorial Fund for endowed beds for disabled soldiers and sailors in the Princess Christian Homes (Memorial Office, Horse Guards, S.W.):—Mrs. S. Lewis, endowed bed, £600; Mrs. Bischoffsheim, £50; Miss Dawson Lambton, £25; Miss E. Dawson Lambton, £25; Mr. A. Moseley, £21; Lord and Lady Llangattock, £20; £10 10s. each Mr. John Fairbank, Mr. H. Oppenheim, and Miss Tidswell; £10, Anon, Major-General Blundell, General Sir R. Buller, Major Hon. F. L. Colborne, Earl of Cranbrook, Earl of Elgin, Lady Susan Leslie Melville, Mr. Pandeli Ralli, Lord Justice Romer, Right Hon. A. H. Smith Barry, and Mrs. Smith Barry; £5 5s., Mrs. Erle, Viscount Knutsford, Mrs. C. Lancaster, Captain C. B. Levita, Colonel R. Parry Nisbet, and Sir R. Douglas Powell; £5, Mrs. Adeane, Lord Aldenham, Colonel Donald Browne, Lady

Victoria Buxton, Duchess of Cleveland, Sir James Colquhoun, Hon. Mrs. Dillon, Dowager Lady Hillingdon, Lord Knutsford, Captain M. A. Laing, Rev. K. E. B. Maires, Duke of Montrose, Miss Penny, Earl of St. Germans, Mr. George Scott, Lord Thring, Major-General Swaine, and Mrs. Robert Wingate; £4 4s., Sir Hugh and Lady Wyndham; £3 3s, Dr. T. Miller Maguire and Mr. F. D. Mocatta; £3, Constance Marchioness of Lothian and Mrs. William Rickman; £2 2s., Mrs. E. Blathwayt, Hon. T. A. Brassey, General Dunne, Messrs. Helmers and Sons, Mr. R. Y. Kennedy, Messrs. Lloyd, Mr. C. P. Penny, Mr. E. K. Purnell, and the Bishop of Rochester; £2, General E. M. Cherry, Mrs. C. L. Foquette, Countess of Lytton, Countess of St. Germans, Private A. Williams (collected), Mr. V. C. Smith, and Colonel Turbervill; £1 1s., Mrs. Y. H. Beevor, Captain Clarke, Mrs. Emerson, Hon. Mrs. Kennedy, Mrs. C. R. Jackson, Mrs. Mackenzie, Mr. C. S. Matthews, Hon. Mrs. Talbot, Mrs. Charles Thynne, and Mr. F. R. S. Wyllie; £1, Lady Colville, Lady Fletcher, Miss Maxwell, and Miss S. E. H. Noyes; 16s., Miss Rooper; 10s. 6d., Miss A. M. Courtenay, Miss L. Courtenay, H B. D., Miss F. H. Fisher, Dr. Kelly, and Mr. B. S. Ogle; 10s., Dr. Alderson. A Reader of the *Scottish Guardian*, A Scotch Woman, R. Y. R., and Mrs. Hawkins; 5s., Miss Butler, Miss M. Chute, and Miss M. Edwards.

◆

Jay Pay.—We have not seen the book in question. There is, of course, difficulty in securing conviction against a man for publishing obscenity if he can set up anything in the nature of a defence. As a rule it is hard to find a prosecutor, the police rarely taking the initiative, and private individuals are not willing to do the unpleasant work.

Virtus.—Our correspondent is referred to an annotation on the subject which appeared in our last issue on page 952 and in which we state our views of the matter.

Blushing.—We cannot recommend any treatment.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (8th).—London (2 P.M.), St Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex ([illegible] P.M.), Chelsea (2 P.M.), Samaritan [illegible] 2 P.M.), Soho-square (2 P.M.), Ro[illegible] Orthopædic (4 P.M.), Gt. Northern [illegible] lon (2.30 P.M.), London Throat (2 P.M.).

TUESDAY (9th).—London [illegible] (1.30 P.M.), St. Thomas's [illegible] minster (2 P.M.), Wes[illegible] (2 P.M.), St. George's [illegible] (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

WEDNESDAY (10th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.).

THURSDAY (11th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

FRIDAY (12th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

SATURDAY (13th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

WEDNESDAY (10th).—HUNTERIAN SOCIETY (London Institution, Finsbury-circus, E.C.).—8.30 P.M. Clinical Evening.

FRIDAY (12th).—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Papers:—Dr. J. H. Bryant: A Case of Volvulus of the Ileum with Severe Intestinal Hæmorrhage.—Mr. F. J. Steward: A Case of Ureteral Calculus simulating Vesical Calculus.—Dr. W. H. B. Brook: An Attempt at the Antenatal Treatment of Hæmophilia.—Dr. StClair Thomson: Poisoning from the External Use of Aniline Oil.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, Hammersmith-road, W.).—8.30 P.M. Papers:—Mr. W. H. Jessop: 100 Consecutive Cases of Simple Extraction of Cataract.—Dr. A. Whitfield: A Case of Peculiar Intolerance of the External Application of Mercury.

WEST KENT MEDICO-CHIRURGICAL SOCIETY (Royal Kent Dispensary, Greenwich-road, S.E.).—8.45 P.M. Dr. S. Taylor will introduce a Discussion on Typhoid Fever.

LARYNGOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—5 P.M. Cases will be shown by Dr. D Grant, Dr. StClair Thomson, Dr. Horne, Mr. Walsham, Mr. Wingrave, Dr. Powell, Mr. Lake, Mr. Parker, Dr. S. Spicer, and Mr. L. Turner.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

TUESDAY (9th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. H. Campbell: Consultation. (Medical.)

WEDNESDAY (10th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. J. Berry: Consultation. (Surgical.)

THURSDAY (11th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Consultation. (Surgical.)

FRIDAY (12th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies street, W.C.).—4 P.M. Dr. D. Grant: Consultation. (Ear.)

EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 3rd, 1901.

Date	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radia in Vacuo	Maximum Temp Shade.	Min. Temp	Wet Bulb	Dry Bulb	Remarks at 8.30 A.M.
Mar. 28	29·69	N.	...	71	38	28	Fzn.	33	Snowing
" 29	29·81	N.W.	0·06	78	45	27	Fzn.	32	Hazy
" 30	29·22	S.W.	0·33	70	49	32	41	42	Raining
" 31	29·20	S.W.	0·20	78	50	38	44	47	Raining
April 1	29·52	S.W.	...	98	64	43	40	43	Cloudy
" 2	30·02	S.	...	90	65	38	42	44	Fine
" 3	29·56	S.W.	0·01	65	55	44	51	53	Cloudy

During the week marked copies of the following newspapers have been received:—*Bury Times, Oldham News, Halifax Courier, Bournemouth Guardian, Hampshire Telegraph, Manchester Courier, Glasgow Times, Walsall Chronicle, Leeds Mercury, Blackburn Telegraph, Yorkshire Herald, Southern Echo, Hereford Times, Shields Daily Gazette, Grimsby Gazette, Leicester Advertiser, South Wales News, Western Press (Bristol), Times of India, Pioneer Mail, Scotsman, Citizen, Builder, Architect, Yorkshire Post, Liverpool Daily Post, Bristol Mercury, Stroud News, Cambridge Chronicle, Newport Herald, Radnorshire Standard, Market Harborough Advertiser, Siam Free Press, Midland Daily Telegraph, Health, Town and Country Journal (Sydney), St. Andrew (Glasgow), City Press, Local Government Chronicle, Hertfordshire Mercury, Nottingham Daily Guardian, Reading Mercury, Australasian Gazette, Queensland Government Gazette, Surrey Advertiser, Local Government Journal, South African News, Cambridgeshire Times, Ulster Echo, Warder, Soham Advertiser, Westminster Budget, Warwick Times, Boston Guardian, Huddersfield Examiner, Lloyd's Newspaper, Herald of Wales, Cornish Post, &c., &c.*

Communications, Letters, &c., have been received from—

A.—Dr. F. P. Atkinson, Bexhill; Dr. J. Anderson, Pitlochrie; *American Medicine*, Philadelphia, Editor of; A. W. L. J.; Messrs. Armbrecht, Nelson, and Co., Lond.; Alpha, Sheffield; Messrs. Ayrton and Saunders, Liverpool; Mr. J. F. Aspinwall, Marsden, A. D. La T.; Messrs. R. Anderson and Co., Lond.; Dr. Alderson, Bournemouth.

B.—Mr. S. H. Benson, Lond.; British Pharmaceutical Conference, Lond., Hon. Secretary of; *Birmingham Daily Post*; Bristol General Hospital, Secretary of; C. Birchall, Ltd., Liverpool; *Birmingham Daily Gazette*; Dr. B.; Mr. T. Bryant, Lond.; British Power Traction and Lighting Co, York; Mr. F. E. Bissell, Woodford Halse; Dr. A. H. Bampton, Ilkley-in-Wharfedale; Burton upon-Trent, Medical Officer of Health of; Mr. D. Bannerman, Glasgow; Dr. A. Bronner, Bradford; Dr. A. Breuer, Lond.

C.—Dr. M. W. Cowan, Leigh; Dr. G. H. Clark, Germantown; Cantab (M.D. Brux), Lond.; Dr. E O. Croft, Leeds.

D.—Mr. F. Davidson, Lond.; Messrs. Down Bros, Lond.; Sir Dyce Duckworth, Lond.; Mr. D. Douglas Crawford, Liverpool; Sir R. Douglas-Powell, Lond.; Dental Hospital of London, Secretary of.

E.—Dr. F. W. Edridge-Green, Hendon; *Empire Review*, Editor of.

F.—Messrs Fairchild Bros. and Foster, Lond.; Messrs. Fletcher, Fletcher, and Co., Lond.; Sir Joseph Fayrer, Falmouth.

G.—Mons. O. Godard, St. Dizier, France; G. B. W.; Messrs. Grierson, Oldham, and Co., Lond.; Dr. G. M. Gould, Philadelphia; Mr. W. A. Gemmel, Bexley Heath; Dr. Gubb, Lond.

H.—Dr. A. Halabi, Damascus; Dr. Mohammed el Hakim, Luxor; Hull Corporation, Town Clerk of; Dr. W. Hunter, Lond.; Messrs. Hutchison and Cuff, Lond.; Heigham Hall Asylum, Norwich, Medical Superintendent of; Mr. J. A. Home, Kew Gardens.

I.—Ingham Infirmary, South Shields, Secretary of.

J.—Jenner Institute for Calf Lymph, Lond.

K.—Lieutenant-Colonel A. Kirwan, A.M.S., Leicester; Mr. R. C. B. Kerin, Lond.; Messrs. Knight, Frank, and Rutley, Lond.

L.—Mons. H. Le Soudier, Paris, Messrs. Lee and Nightingale, Liverpool; Liverpool Stanley Hospital, Secretary of; Dr. med. Semjon Lipliansky, Berlin; Dr. Latham, Cambridge; Leeds and West Riding Medico-Chirurgical Society, Secretaries of; Lactic Acid; Lux, Aldershot; Dr. Graham Little, Lond.; Mr. W. T. Lawson, Birmingham.

M.—Dr. H. V. Mackenzie, Torquay; Mr. E. Merck, Lond.; Mr. J. Marshall, Pontnewydd; Mr. T. W. S. Morgan, Easton-in-Gordano; C. Midgley, Ltd., Manchester; Manchester Royal Infirmary, Secretary of; Manchester Southern Hospital, Hon. Secretary of; Mr. J. Aspinall Marsden, Lightcliffe; Mr H. Temple Murrell, Lond.; Lady Maitland, Lond.; Dr. J. Murray, Carbon Hill, U.S.A.; Messrs E. Marlborough and Co., Lond.; Mr. B. G. A. Moynihan, Leeds; Mr. J. Mulvaney, Portsmouth; Mr. J. J. de Z. Marshall, Lond.; Mr. McLelland, Partick; Mr. J. Morris, Lond.; Mr. S. B. Mason, Pontypool; Mr. V. C. Mallan, Lond.

N.—Herren H. Nickel and Co., Kassel; National Sanatorium for Consumption, &c., Bournemouth, Secretary of; Mr. H. Needes, Lond.

O.—Dr. H. O'Neill, Belfast; Mr. R. Overy, Abbotts Langley; Mr. T. G. Ouston, Newcastle.

P.—Mr. Y. J. Pentland, Edinburgh; Porcherine Co, Lond.; P. D. W.; Mr. F. E. Potter, Lond; Mr. E A. Piggott, Clare; Paddington Green Children's Hospital, Matron of; Messrs. Potter and Sacker, Lond.; Messrs. Peacock and Hadley, Lond., Countess of Portsmouth, Lond.; Mrs. Papillon, Lond.

R.—Dr. T. E Richards, Abercrave; Messrs. Reynolds and Branson, Leeds; Mr. E. J. Reid, Lond.; Mr. R. Redpath, Newcastle-on-Tyne, Rotherham Hospital and Dispensary, Secretary of; Dr. H. M. Richards, Croydon; Rebman, Ltd., Lond.; Dr. J. D. Rawlings, Dorking; Miss B. Reeve, Hailsham; Dr. W. B. Ransom, Nottingham; Messrs. Roberts and Co, Lond.

S.—Mr. B. W. Sanders, Kingsland; Max Schliephak, Ltd., Lond.; Messrs. G. Street and Co., Lond.; Messrs. W Symington and Co., Market Harborough; Dr. J. F. J. Sykes, Lond.; Dr. Schloesser, Nice; Swansea Hospital, Swansea, Secretary of; Messrs. Swan Sonnenschein and Co., Lond.; Mr. F. W. Sears, Lond.; Messrs. Smith, Parfrey, and Co., Lond.; Dr. Shaw-Mackenzie, Lond.; Dr. Heywood Smith, Lond.; Dr. B. Sebastian, Madrid; Mr. W. Sheen, Cardiff.

T.—Sir William Turner, Lond.; Mr. W. P. Thornton, Canterbury; Tallerman Institute, Lond., Secretary of; Mr. R. Thompson, Lond.; Mr. J. Thomson, Glasgow; Dr. E. Symes Thompson, Lond.

U.—University of Glasgow, Assistant Clerk of; Unqualified, Bristol.

V.—Vinolia Co, Lond.; Verax; Dr. G. H. Vos, Lond.

W.—Mr. S. Wand, Leicester; Major E. M. Wilson, R.A.M.C., Lond; Wyleys, Ltd, Coventry; Mr. H. Wilson-Young, Lond.; Whitehaven and West Cumberland Infirmary, Secretary of; Dr. S. L. B. Wilks, Grassington.

Y.—Mr. A. Young, Edinburgh.

Z.—Messrs. A. and M. Zimmermann, Lond.

Letters, each with enclosure, are also acknowledged from—

A.—Mr. F. C. Abbott, Falmouth; Messrs. Allen and Hanburys, Lond.; Association for Pure Vaccine Lymph, Lond.; Dr. J. P. Aitchison, Blackburn.

B.—Dr. W. W. Baldwin, Rome; Mr. H. J. T. Blanch, Swindon; Messrs. F. B. Benger and Co., Manchester; Messrs Baiss Bros. and Co., Lond.; Messrs. J. Beal and Son, Brighton; Dr. G. J. Blackmore, Lond.; Dr. R. H. Browne, Lond.; Bevis, Lond.; B J. A.

C.—Miss A. R. Cooper, Paignton; Messrs. Cohen and Co, Lond.; Messrs. T. Christy and Co., Lond.; Messrs. J. and A. Carter, Lond.; Dr. W. J. Cousins, Lambourn; C. E. W.; Mr. R. Chambers-Owen, Hindley.

D.—Mr. C. Denton, Little Ilford; Dr. C. R. Drysdale, Lond.; Mrs. Davenport, Worcester; Dumfries Royal Infirmary, Secretary of; Dr. A. C. Dutt, Newington; Dr. G. W. Davis, Sidcup; Dover Hospital, Hon. Secretary of; Dr. W. A. Dawson, Bandon; District Infirmary, Ashton-under-Lyne, Secretary of; D. W.; D. P. M., Bedminster; Mr. T. Dixon, Lond.

E.—Messrs. Evans, Lescher, and Webb, Lond.; E. B. H.

F.—Mr. E. V. R. Fooks, Ealing; F. H. H.; F. A. C.; Mr. E. H. Fryer, Wellingborough.

G.—Mr. G. H. Gemmell, Edinburgh.

H.—Dr. F. W. Hewitt, Lond.; Messrs. Hooper and Co., Lond.; Hon. Sec, Liverpool; H.

I.—International Plasmon, Lond.

J.—*Surgeon* A. H. Jeremy, R.N., China Station; J. C. L.; J. H. B.; J. P. G.

K.—Dr. H. R. Kenwood, Lond.

L.—Mr. S. G. Longworth, Melton; Mrs. Lappin, Gilford; Mr. T. Leyshon, Lond.; Leeds Union, Clerk of.; Miss Z. Longstaff, Lond.; L. H., Leicester.

M.—Dr. L. J. Minter, Uxbridge; Mr. G. F. W. Meadows, Otley; Messrs. McKesson and Robbins, New York; Mr. W. McGee, Dublin; Matron, Southampton; Mr. S. Mackey, Manchester; Manchester Medical Agency, Secretary of; Manchester Port Sanitary Authority, Secretary of; Mr. H. W. Mills, Ruardean; Medical Society of London, Secretary of; M. H. H.

N.—Dr. E. Norton, Folkestone; Messrs. Nicolay and Co., Lond.; N. P. C.

P.—Dr. P. Paterson, Glasgow.

R.—Mr. G. Rees, Aberystwyth; Mr. Roberts, Festiniog; R. C. J.; Dr. F. Riley, Sale; R. N. H.; Dr. R. M. Ralph, Wakefield.

S.—Mr. J. C. Smyth, Kilpedder; Dr. B. R. Sawhney, Jammu, India; Stroud Union, Clerk of; Messrs. Street and Co., Lond.; Dr. H. Sainsbury, Lond.; S. T.; Mr. D. Samuel, Aberavon; Dr. Sharp, Clare, Mr. Salisbury Griffiths, Bristol; St. Mungo's College, Glasgow, Cashier of.

T.—Dr. I. A. Tate, Beverley; Mr. J. A. Thornhill, Middlesborough; Dr. H. P. Taylor, Midyell.

U.—University College, Bristol, Secretary of.

V.—Dr. G. R. Vicars, Wood Dalling.

W.—Mr. H. F. Wigg, Anerley; Dr. R. L. Woollcombe, Dublin; Mr. J. Ward, Lond.; W. E. A.; Dr. H. P. Wright, Fauldhouse; W. M.

EVERY FRIDAY. **THE LANCET.** PRICE SEVENPENCE.

SUBSCRIPTION. POST FREE.

FOR THE UNITED KINGDOM.				TO THE COLONIES AND ABROAD.			
One Year	£1	12	6	One Year	£1	14	8
Six Months	0	16	3	Six Months	0	17	4
Three Months	0	8	2	Three Months	0	8	8

Subscriptions (which may commence at any time) are payable in advance.

ADVERTISING.

Books and Publications ...	Seven Lines and under	£0	5	0
Official and General Announcements	Ditto	0	5	0
Trade and Miscellaneous Advertisements	Ditto	0	4	6
	Every additional Line	0	0	6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.

Terms for Position Pages and Serial Insertions on application.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

Cheques and Post Office Orders (*crossed* "*London and Westminster Bank, Westminster Branch*") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France,—J. ASTIER, 8, Rue Traversière, Asnières, Paris.

The Hunterian Lectures

ON

THE TOPOGRAPHICAL ANATOMY OF THE ABDOMINAL VISCERA IN MAN.

Delivered before the Royal College of Surgeons of England on March 4th, 6th, and 8th, 1901,

BY CHRISTOPHER ADDISON, M.D. LOND.,
F.R.C.S. ENG.,
PROFESSOR OF ANATOMY AT THE UNIVERSITY COLLEGE, SHEFFIELD

LECTURE III[1]

Delivered on March 8th

THE PERITONEUM ON THE CÆCUM

MR PRESIDENT AND GENTLEMEN,—In four cases bands of various sorts ran along the back of the cæcum, but none of them represented a true meso cæcum The peritoneum as it was reflected from the back of the cæcum or the ascending colon on to the body wall externally presented in many cases a well marked fold passing to the upper part of the iliac crest

THE PERITONEAL FOLDS AND POUCHES IN THE NEIGHBOURHOOD OF THE ILEO COLIC JUNCTION,

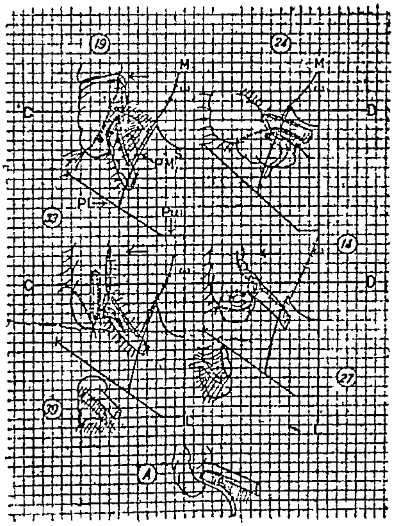
These were so fully described by Mr. B G A Moynihan[2] of Leeds in his lectures two years ago that very little need be said concerning them (see Fig 8) There are three, or sometimes four, folds to be considered, and three, or sometimes four, fossæ We will adopt a nomenclature after Lockwood and Rolleston and Berry and speak of them as. (1) the ileo colic fold and fossa, (2) the ileo-cæcal fold and fossa (or ileo appendicular), (3) the meso appendix, and (4) the retro-colic fold and fossa (occasionally two fossæ, internal and external) Very diverse and perplexing are the names and descriptions given to these folds and fossæ by some writers It seems needlessly so

1 *The ileo-colic fold and fossa* —There is nothing to add to the current descriptions of this fold There were only five cases in which it was specially drawn as bounding well-defined and considerable fossæ, and the many other cases in which it was present were passed over, as the detailed examination and record of these fossæ did not form a part of this research Case 19, Fig 8, shows this fossa very well.

2 *The ileo-cæcal fold and fossa* (Fig. 8, outline A) —In most fat subjects this fold contains a considerable amount of fat and in some cases it was described as loaded with fat A small recurrent branch of the appendicular artery is often found in it, so that Mr Treves's[3] description of it as the bloodless fold is not always applicable In 24 cases, or 60 per cent, the fold was well marked, bounding more or less well defined fossæ in 23 of them The superior border of the fold is attached for a variable distance (usually about four centimetres) along the ileum at its termination, the outer border—directed somewhat upwards—is attached to the cæcum, the lower border is attached to the back of the cæcum, adjoining the appendix, to the appendix itself or to the meso-appendix for a variable distance; whilst the internal border directed downwards and inwards with various obliquities is free, somewhat crescentic, and longer than the others

3 *The meso appendix.*—The original attachment of the meso appendix to the back of the mesentery is progressively displaced by the growth of the cæcum and colon to the back of the large intestine The positions of the attachments of the meso appendix classified on this basis occurred in the 40 cases [illegible] (1) wholly to the inferior [illegible] it cases; (2) partly to the me[illegible] the cæcum, 13 cases, (3) w[illegible] or ascending [illegible] specially in those cases in [illegible] was more or less marked), [illegible] three cases where the appendix was bound by peritoneum to the back of the large intestine and one case in which it was bound to the floor of the iliac fossa The long or free border of the meso appendix can usually be traced as a small sickle shaped band almost to the extremity of the appendix

FIG 8.



St[illegible] the commencement of the [illegible] the text)

4 *The retro colic fold and fossæ* (Fig 8, Cases 19 and 33) —Berry[4] divides the fossæ behind the cæcum or the beginning of the ascending colon into the internal and external In these cases only one—the internal—appeared to be of any consequence A fold of peritoneum passing to the back of the cæcum or the first part of the ascending colon frequently divides the region behind the large intestine at this part, external to the mesentery and the meso appendix, into inner and outer parts The outer part may be converted into a wide pocket by the reflexion of the peritoneum at a higher level from the back of the ascending colon on to the body wall near the upper part of the iliac crest giving it a definite upper limit Except in five cases such an external retro-colic pouch was so wide and shallow that it could not fairly be called a pouch In one case only was it so well defined that it might possibly have become of clinical importance The appendix does not pass into it

The internal or proper retro colic pouch is of much importance It was well defined in eight cases, or 20 per cent It often contains the root of the appendix and occasionally the appendix is wholly or partly recurved into the pouch A glance at Fig 8 (Case 33) shows quite well how in such a case further absorption of the peritoneum by the colon would have produced an appendix wholly behind the peritoneum, as in Case 14 Case 27 shows an interesting position of the appendix The greater part of it was firmly bound by peritoneum to the back of the large intestine; the root of the appendix was situated behind the cæcum and the tip projected from out of a pouch external to the ascending colon at the level of the iliac crest The case apparently represents an appendix which was recurved upwards outside the reflexion of the peritoneum on to the back of the ascending colon, the peritoneal folds having become obliterated at its proximal part

---

[1] Lectures I. and II were published in THE LANCET of March 16th (p. 759) and 30th (p 911), 1901, respectively

[2] Arris and Gale Lectures 1899, also Retro-peritoneal Hernia, London 1899

[3] Op. cit.

[4] The Cæcal Folds and Fossæ, &c., Edinburgh, 1897

THE PERITONEUM ON THE COLON.

There were six cases, or 15 per cent, which presented an ascending meso-colon and nine cases, or 22 5 per cent., which presented a descending meso-colon. The figures are somewhat less than those that Treves[5] gives, but it must be remembered that they only refer to those cases in which the folds were definitely existent. There were doubtless other cases in which for surgical purposes an ascending or descending meso colon was as good as present.

Cases 8, 18, and 38 were excellent examples of an ascending meso-colon and it is interesting to notice that in all of them a long free appendix passed upwards behind the colon external to the attachment of its mesentery (see Case 8, Fig. 10). The distance of the attachment of the meso-colon from the middle line as shown by the dotted line in the figure was that of the average position of the normal peritoneal reflexion on to the inner side of the ascending colon. A similar description applies to the line of the attachment of the meso-colon in eight of the nine cases in which a descending meso-colon existed.

THE CYSTO COLIC FOLD.

There were 12 cases, or 30 per cent., in which this fold, which I have previously described, was present. In all but two of them there existed that which will be described as the first and chief variety of the transverse colon—viz., one characterised by a marked and more or less firm downward hepatic loop.

THE MESO-SIGMOID.

In connexion with the meso-sigmoid (Fig. 9) it cannot be too much emphasised that the sigmoid flexure of the colon over the left psoas muscle has a very short mesentery. In fact, in most cases, this part of the intestine is firmly bound down by the peritoneum. The free part of the sigmoid colon, hanging into the pelvic cavity or having a free excursion in the abdomen, is that which has its mesentery attached passing upwards along the inner border of the left psoas muscle from about the plane of the anterior superior iliac spines.

The normal meso-sigmoid, as represented in Fig. 9, Case 17, consists of two limbs. The *outer limb* begins over the left psoas muscle about the plane of C, D,[6] and passes inwards and downwards to a point just internal to the left lateral line, a little above the level of the anterior superior iliac spine, from which it turns upwards as the *inner limb* along the inner margin of the left psoas muscle to the upper part of the little recess between the psoas muscle and the side of the vertebral body bounding the lumbo-sacral promontory. Here it often presents a sharp bend with the convexity upwards and then passes downwards on the side of the vertebral body, or across the little recess, into the pelvic cavity, where, as the meso-rectum, it is placed about two centimetres from the middle line. The degree of prominence of the upward bend depends upon the state of the development of an up-going fold, which Robinson[7] describes as the suspensory ligament of the meso-sigmoid (outline 14, Fig. 9). When the fold is absent the inner part of the meso-sigmoid may become straightened out. The commonest variation of the meso-sigmoid is the obliteration either by adhesions or by bowel growth of its outer limb (Case 18, Fig. 9), leaving the inner portion Λ-shaped.

In these 40 cases these conditions occurred with the following frequency:—1. Presence of both limbs, 27 cases, or 67 per cent. 2. Complete absence of the outer limb, 11 cases, or 27·5 per cent. 3. Abnormal cases in the presence of a descending meso-colon, two cases.

In the first set of 27 cases there were 13 in which the outer limb of the meso-sigmoid was so short that the attached part of the bowel was practically immobile. So that in 24 cases altogether, or 60 per cent., the outer (first) part of the sigmoid flexure of the colon was firmly fixed. In five cases the inter-sigmoid pouch was very well marked. Case 18 (Fig. 9) shows a kink on the descending colon where it was lodged in a pocket behind the outer part of the psoas muscle at the upper part of the iliac fossa. The bowel was tightly bound in this pocket by the peritoneum. A similar condition existed in two other cases

THE LARGE INTESTINE.

The vermiform appendix.—The root of the appendix is situated in the average in the right lateral line midway between the planes of C, D, and the anterior superior iliac spines, or about an inch below the intersection of the right lateral line and a line drawn from the right anterior superior iliac spine to the umbilicus. *High level.*—There were four cases in which the *root* of the appendix was situated above the plane of C, D. In two of them it was carried up by a very distended cæcum which would have been obvious on superficial examination, and in the other two cases the ascending colon had very loose peritoneal attachments. In five other cases the *tail* of the appendix passed upwards above the level of C, D. In three of these the appendix was directed upwards in a retro-colic pouch and in the other two cases outside an ascending meso-colon. In one case it was very large and reached up to the under surface of the liver. In nine cases, therefore, or 22·5 per cent, the appendix was situated wholly, or in part, above the level of C, D. *Low level*—In seven cases the root of the appendix was at or below the level of the *anterior superior iliac spine*; in all of the cases the cæcum was distended and in four of them it was prolapsed within the pelvic cavity. In four cases the root of the appendix was less than four centimetres from the middle line. In three of the cases the cæcum was wholly, and in the other case partly, prolapsed into the pelvic cavity (Case 7, Fig. 10). The alterations in the positions of the appendix as a whole are specially associated with a distended condition of the cæcum and the appendix is specially likely to be found high up when the attachments of the ascending colon are lax. The position of the appendix in relation to the cæcum is chiefly determined by the degree of the absorption of its mesentery by the cæcum or colon. The tenseness of the peritoneum on the iliac fossa no doubt determines the degree of possible prolapse of the cæcum. In a general way the appendix hangs either partly or wholly over the margin of the psoas into the pelvic cavity. The direction of its free end is evidently a matter of small importance as it will vary from time to time. The positions of the vermiform appendix fall into four groups, and in these cases they occurred with the following frequency: 1. Wholly within the pelvic cavity, six cases, or 15 per cent. 2. Free, hanging more or less over the pelvic brim, 16 cases, or 40 per cent. 3 Wholly in the iliac fossa, 14 cases, or 35 per cent. Of these cases seven were quite free, four were partly free but recurved into a retro-colic pouch, and three were wholly behind the peritoneum. 4. Irregular cases, four, or 10 per cent. In three of the irregular cases the appendix passed upwards, as has been described, outside an ascending meso-colon and in the fourth case it was bound to the back of the cæcum without any apparent mesentery. (Fig. 8, Case 39) If we combine these cases we see that in eight instances, or 20 per cent., the appendix was either recurved into a retro-colic pouch or was firmly fixed behind the peritoneum.

THE CÆCUM.

The lowest point of the cæcum was situated, as a rule, in the right lateral line about half an inch below the level of the anterior superior iliac spine. There were seven cases in which the cæcum was wholly, and three cases in which it was partly, prolapsed into the pelvis, or 25 per cent. of the total cases. The chief features in these cases were a distended condition of the cæcum and a generally convoluted condition of the large intestine. In six cases the cæcum was displaced more or less completely above the level of C, D. In these cases, again, distension was a marked feature and frequently a lax state of the attachments of the ascending colon. (See Cases 8 and 12, Fig. 10.) In both these groups of cases the ileo-colic junction was lower down or higher up than usual in conjunction with the cæcum. The cases generally hardly warrant one in saying more than that when the large intestine generally is voluminous and convoluted the cæcum in the presence of distension will be more likely to find room for itself in the pelvis than in the abdomen. In many of the cases of distension of the cæcum when it was not prolapsed, as in Case 12, the beginning of the large intestine presented a twist-like appearance as if the lower part had passed upwards in front of the upper part, so that, it may be, the lowest part of the bowel is not cæcum but colon. The condition was evidently produced by the firm peritoneal attachment of the ascending colon about the level of the iliac crest to which I shall direct your attention in a moment. The bowel above the ileo-colic junction in these cases was firmly fixed, the lower distended part passing

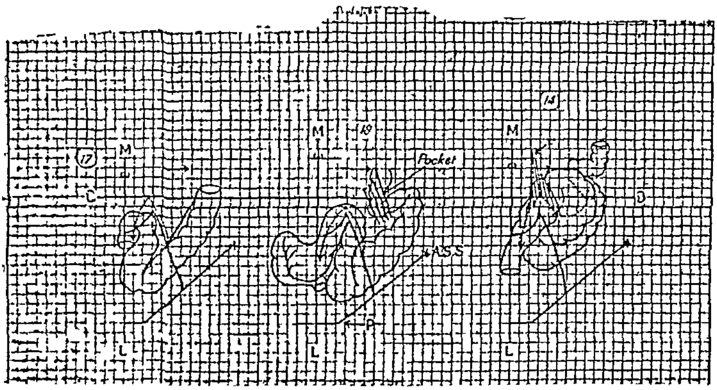
---

[5] Treves The Anatomy of the Intestinal Canal and the Peritoneum, London, 1885

[6] Readers are reminded that the plane C, D, is one taken transversely across the abdomen a quarter of the way from the upper border of the pubes to the supra sternal notch

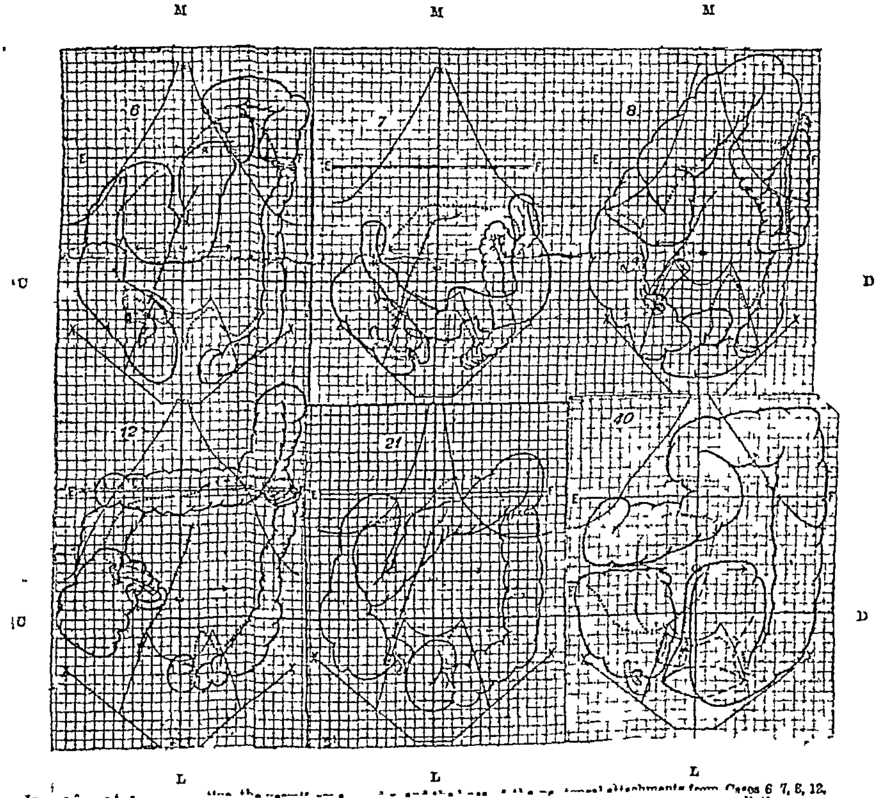
[7] Robinson Byron The Sigmoid Flexure, &c., Matthew's Medical Quarterly, Louisville, vol. iii., 1896

FIG 9



Shows the three types of the meso-sigmoid described in the text. In the outline from Case 17 the outer limb of the meso-sigmoid is shown by a line and the rest of its attachment in this figure as in the outlines from Cases 18 and 14 is shown by a dotted line In Case 18 the commonest abnormality of the absence of the outer limb of the meso-sigmoid is shown and in Case 14 the suspensory fold is shown. The scale represents centimetres C, D, the lower transverse abdominal line M, L the middle line.

FIG. 10



In [illegible] attachments from Cases 6 7, 8, 12, [illegible] F, the upper, [illegible] wards from it, [illegible] ows the two [illegible] the os pubis, [illegible] e dotted line [illegible] upwards anteriorly. The third and fourth types of cæcum of Treves are apparently chiefly and nearly equally represented in these cases.

THE ASCENDING COLON.

The distance of the outer border of the ascending colon from the middle line did not present much variation. In 34 cases, or 85 per cent., it varied from ·10 centimetres to 12·5 centimetres from the middle line in the plane of C, D. In nine cases, or 22·5 per cent., the ascending colon about the level of the highest part of the iliac crest had a well-defined kink in it, brought about by its being in these cases strongly bound to the back abdominal wall by its peritoneal attachments. In some cases, as in Case 40 (Fig. 10), these were sufficiently strong to bar effectually the distension of this part of the bowel, although the neighbouring parts were very distended.

THE TRANSVERSE COLON.

There appear to be two chief varieties in the shape of the transverse colon, determined by the presence or absence of a loop downwards from the hepatic flexure. 1. The loop appears to represent a permanence or exaggeration of the primitive bend of the colon at this place. There were 22 cases, or 55 per cent., which presented this loop in varying degrees. In them, as in Case 21 (Fig. 10) the transverse colon at its beginning bends more or less directly downwards for a variable distance (mostly as far as the level of the iliac crest) in front of and to the inner side of the ascending colon, and then, passing upwards again nearer to the middle line, it completes the hepatic loop downwards and passes more or less obliquely across the abdomen to the left side. At the left side, under cover of the ribs, the colon rises for a variable distance upwards in a loop usually directed on an antero-posterior plane. The posterior, or down-going, limb of the loop, when it reaches the basal surface of the spleen, is directed backwards to the posterior abdominal wall, where it turns abruptly downwards as the descending colon. The hepatic loop downwards of the transverse colon is often firmly fixed and difficult to undo; and its down-going limb is frequently found adherent to the adjacent ascending colon. The relatively more stable condition of the bowel contents at the extremity of this down-going loop may perhaps favour the formation of these adhesions. 2. In nine cases, or 22·5 per cent., of which No. 12 (Fig. 10) is an example, there was complete absence of the downward hepatic loop and the transverse colon passed from its hepatic flexure directly across the abdomen along the under surface of the liver to the left, or bulged forwards in a horizontal plane before passing to the left. There were, of course, many cases in which the transverse colon presented shapes intermediate between these looped or straight varieties. In 27 cases, or 67 per cent., the splenic loop upwards had a sagittal direction, of which Case 8 is a good example. In seven cases, or 17·5 per cent., this splenic loop passed in a coronal plane, of which Case 6 is a good example. The down-going limb of the splenic loop is usually of a smaller calibre and more closely sacculated than the rest of the transverse colon. Like the beginning of the ascending colon, the termination of the transverse colon at the posterior part of the basal surface of the spleen is often so firmly fixed that it will not share in general distension of the large intestine. (See Case 6, Fig. 10.)

The cases of high position of the hepatic flexure of the colon and of the transverse colon in the middle line have been already referred to in considering high positions of the stomach, and need not detain us. There were six cases in which the upper border of the transverse colon in the middle line was from 2·5 to nine centimetres above E, F,[8] and 14 cases in which it was from five to 15 centimetres below it, so that it must be considered a very variable point and the average cannot be taken for much. There were, however, 20 cases, or 50 per cent., in which the line E, F, would have hit off sufficiently some part of the lumen of the bowel over the middle line.

Prolapse of the transverse colon (Case 7, Fig. 10, or Case 24, Fig. 11).—There were six cases in which the transverse colon passed across the abdomen wholly below the umbilicus, and four others in which the umbilicus was nearer its upper than its lower border, giving 10, or 25 per cent., of the cases in which the transverse colon crossed the middle line wholly or in greater part below the umbilicus. In five of these cases the attachment of the transverse meso-colon was as high, or in one case (Case 4) higher, than usual; so that in them the low position of the bowel was associated with an elongated, not a prolapsed, mesentery. The average level of the attachment of the transverse meso-colon in the middle line was three centimetres below E, F, and at its commencement at the right, 6·45 centimetres below E, F, or three centimetres above the highest point of the iliac crest. Sometimes the attachment at the right may be low down, whilst that over the middle line is as high as usual; but the low attachment at the right may be sufficient to allow of prolapse of a great part of the transverse colon.

If we define, for convenience' sake, prolapse of the transverse colon and of its mesentery, as when the upper border of the bowel or the attachment of its mesentery in the middle line is five centimetres or more below E, F—that is, about two inches above the highest part of the iliac crest—we have 14 cases of prolapse of the transverse colon and eight cases of prolapse of the transverse meso-colon more or less considerable. Seven cases are common to the two groups. In these cases it will be found that a low position of the liver, and in many cases of the stomach, is especially noticeable. In fact, it seems difficult to lay too much stress on the displacing power of the liver over the parts of the alimentary tract in its neighbourhood. (Fig. 11 shows the position of the parts from Case 24.) In some of the other cases of prolapse of the transverse colon, however, as has been previously noticed, the stomach was at its usual level, the peritoneum between the stomach and the transverse colon having become elongated.

THE DESCENDING COLON.

The inward (and usually firmly-fixed) bend of the descending colon at the lower end of the left kidney was well marked in 12 cases, or 30 per cent., as in Case 7. In three cases the descending colon passed downwards into a pocket beneath the outer border of the psoas muscle and was firmly fixed there by the peritoneum and the bowel took a sharp bend upwards and outwards round the muscle before passing downwards as the sigmoid flexure. (See Fig. 11.)

THE SIGMOID FLEXURE.

The sigmoid flexure passes downwards, more or less firmly bound to the left psoas muscle, in a curve with its convexity outwards, situated about three centimetres internal to the anterior superior iliac spine, until it reaches the brim of the pelvis and becomes possessed of a longer mesentery and acquires a considerable degree of mobility. *For practical purposes a point in the left lateral line at the level of the anterior superior iliac spine may be taken to correspond to some part of the lumen of the sigmoid flexure at the place where it thus, somewhat abruptly, becomes freely moveable.* Treves's[9] description of an omega-shaped loop of the sigmoid flexure within the pelvis represented the majority of cases. There were eight cases, or 20 per cent., in which a large loop of the sigmoid flexure extended out of the pelvis into the umbilical or the right or left iliac region. In these cases the bowel consisted for the most part of a simple loop which was usually distended. A study of the rectum did not enter into this work.

THE LIVER.

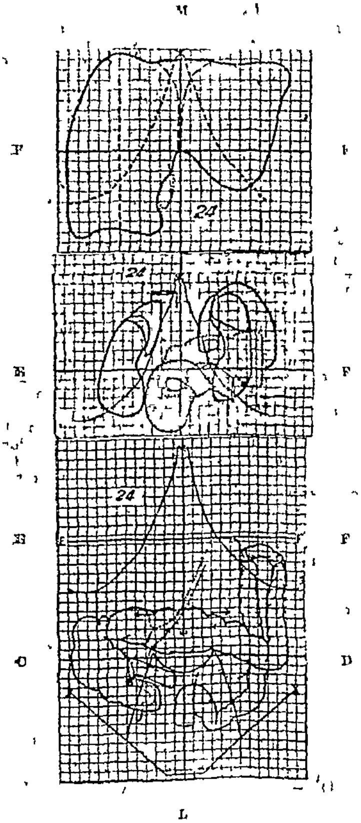
So much has been said in the previous lectures about the solid viscera in the upper part of the abdomen, and the time at our disposal is so limited, that I can only notice a few points. Further details of the surface-marking of the liver may be passed over, especially as the dimensions of this organ can often be determined by the methods of physical examination. In the series of cases examined there was an unusually large number of instances in which the liver was either displaced from intra-thoracic pressure or in which it was enlarged, so that the position of its lower border as shown in Fig. 2, Lecture I., is in all probability one centimetre lower than it would be in the average healthy body. Fig. 3 (Lecture I.) shows that the right costal margin from a level midway between E, F, and the infra-sternal notch to a point four centimetres outside the right lateral line practically represents the lower boundary of the hepatic surfaces of the right kidney and suprarenal capsule. The average distance of the outer border of the inferior vena cava beneath the liver from the middle line was 3·6 centimetres and in very many cases the spigelian lobe of the liver extended inwards beneath the vessel so as almost to make a complete tunnel for the vessel in the liver substance. In 30 cases, or 75 per cent, the right lateral line traversed some part of the fundus of the gall-bladder, or was within one centimetre of one of its margins. In seven cases the gall-bladder did not project beyond the lower border of the liver.

---

[8] The plane E, F is one transversely across the abdomen through a point half-way from the upper border of the pubes to the suprasternal notch.

[9] Op. cit.

FIG. 11.



[illegible] the
[illegible] ted
[illegible] her
[illegible] to
[illegible] it.
[illegible] and
[illegible] to
[illegible] its
[illegible] is
[illegible] in
[illegible] ght
[illegible] the
[illegible] the
[illegible] rge
intestine.

THE RIGHT KIDNEY.

One remark may be added to the general description of the surface marking of the right kidney given in the first lecture—namely, that from the point of intersection of the right lateral line with E, F, the upper pole of the kidney was one and a half inches vertically upwards and its outer border the same distance transversely outwards The variations in level of the upper pole of the right kidney may be considered both in regard to the surface line E, F, and to the disc between the first and second lumbar vertebræ In 21 cases, or 52·5 per cent, the upper pole of the kidney was situated between two and 4·5 centimetres above E F, inclusive In eight cases it was lower than this, the lowest being on the level of E, F (Case 20) In 11 cases it was more than 4·5 centimetres above E, F, the highest being eight centimetres in Case 10

The disc—On the other hand, there were seven cases in which the upper pole of the kidney was not more than one centimetre above the disc—down to one centimetre below it (in Case 20). The average was 3·7 centimetres above the disc There were 11 cases in which it was 5·5 centimetres or more above the disc up to nine centimetres above (in Case 10) We find, therefore, that the variation in position of the upper pole of the right kidney compared to E, F, was eight centimetres—from the same level to eight centimetres above—and compared with the first lumbar intervertebral disc 10 centimetres—from one centimetre below to nine centimetres above These figures again confirm the value of the surface line and they show us incidentally how considerable are the variations in level of the kidney compared with the vertebral column.

In inquiring what relation exists between the levels of the liver and the right kidney we may compare the level of the upper border of the liver in the right lateral line with that of the upper pole of the right kidney; and whatever displacing power the liver may possess it is more likely to be seen in the extreme cases, so that we will place side by side those cases in which the liver occupied a low position and those in which it was high up The average distance vertically upwards from the upper pole of the right kidney to the upper border of the liver in the right lateral line was seven centimetres. The following table records these distances in two cases: A, where the liver was lowest down, and B, where it was highest up

A.		B.	
Case	Distance	Case.	Distance
15	2·6 centimetres	4	7·25 centimetres
7	3 ,,	5	7·5 ,,
2	4 ,,	34	5·5 ,,
27	5 ,,	9	11·5 ,,
16	3 ,,	10	5·5 ,,
30	6·5 ,,	23	10 ,,
22	7 ,,	40	9 ,,
32	7·5 ,,	37	9·25 ,,
11	6·25 ,,	12	8·5 ,,
		31	8 ,,
Average	4·97 centimetres	Average	8·2 centimetres.

The difference between these two averages shows that when the liver is displaced upwards it will leave the kidney to some extent, and, on the contrary, that when the liver is lower than usual it moves down to some extent on the surface of the kidney and diminishes the vertical distance between its upper border in the right lateral line and the upper pole of the kidney. *This conclusion, however, does* not exclude the possibility that the liver in its descent does depress the right kidney in some measure, only in a lesser degree than the liver itself moves downwards We should not have expected that the kidney would have moved downwards as much as the liver, presuming for the moment that it moves downwards at all. We should expect a certain correspondence between the levels of the different viscera in any given case in the absence of exceptional displacing forces *And if we take those cases* in which the right kidney was lowest down we find amongst them a considerable number of cases in which the liver also occupied a low position, and on the other hand, those cases in which the kidney was highest up embrace several in which the liver was also highly situated Before we make any general statement we should notice the position of the duodenum in relation to the right kidney in the cases referred to Now the figures of the duodenum show that in all the foregoing cases of low *livers except three (and in them* to a great extent) the duodenum was almost wholly pushed off the kidney, leaving to that organ a greatly increased hepatic surface (See, for instance, the outline of the duodenum, &c, from Case 24 on Fig 11) On the other hand, the cases of high position of the liver will be seen to be those pre-eminently in which the duodenum passed on to the right kidney near its upper end. The liver, that is *to say*, has displaced the duodenum very much more than the kidney. But many of the cases show much more than this. In Case 16 the upper pole of the kidney was 2·6 centimetres higher than its average both in relation to E, F, and the first lumbar intervertebral disc and nearly the whole of its anterior surface was in contact with the liver, which, with its upper border lower than usual, extended far down into the abdominal cavity. In this case clearly the liver had not displaced the kidney; and it is fairly evident that, so long as the enveloping connective tissue of the kidney remains firm, the liver has little displacing influence on the kidney, if any.

THE KIDNEY AND THE ASCENDING COLON.

The hepatic flexure of the colon must be considered amongst those parts which may contribute to the support of the right kidney, as in most cases it presses considerably on the lower segment of the kidney. If the ascending colon contributes materially to the support of the kidney we should expect to find evidence of it in the cases in which the colon is largely or altogether prolapsed away from the kidney. Cases 2, 7, and 15, and, better still, Case 24 (see Fig. 11) and Case 36 are good examples of this condition. In the two last cases in which the colon had wholly retreated from the kidney, the kidney was even, as it happens, at a higher level than usual. In Case 24 the connective tissue passing from the upper pole of the kidney to the diaphragm was carefully dissected, and it contained a strong fibrous cord which passed on to the right crus. The band evidently gave additional strength to the connective tissue around the kidney. A similar condition was remarked in other cases but in none was it so well marked as in Case 24. In this case also the liver was very low down.

The kidney, apparently in the absence of laxity of its enveloping connective tissue, is very much independent of pressure from the liver above or from the stomach below. The right kidney in Case 11 and Case 38 might be spoken of as moveable; but the cases presented no special feature in other respects.

THE PANCREAS.

The alterations in the level of the pancreas, the relative size of its surfaces, the presence or absence of its omental tuberosity, and the changes in the shape and position of its head have been dealt with under the stomach and the duodenum. As the pancreas passes to the left across the face of the left kidney it frequently presents a slight twist, bringing its inferior surface to look downwards and a little to the right.

THE SPLEEN.

The highest point of the spleen is generally situated just inside the left lateral line 1·1 centimetres below the infrasternal notch. In 25 cases, or 62·5 per cent., it varied from the level of the notch to 2·5 centimetres below it. There were five cases lower than this up to 5·5 centimetres below the notch in Case 27; and there were six cases more than one centimetre above the notch, up to 2·5 centimetres in Case 10. Without going into further details we may say that a high position of the spleen seems to be specially associated with a highly-placed stomach, but that a low position of the spleen does not seem specially to accompany a low position of the stomach. The cases do not appear to establish any direct relationship—apart from a general correspondence of visceral levels—between the level of the spleen and the left kidney.

LEFT SUPRARENAL BODY.

One point should be mentioned in connexion with the left suprarenal body. You will see by the illustrations before you that in many cases the level of the left suprarenal body in regard to the left kidney is greatly determined by the position of the pancreas with regard to the kidney, being nearly lifted off the kidney when the pancreas occupies a high position on the kidney, as in Case 17 and Case 31, or being much depressed in level under opposite circumstances, as in Cases 16, 24, 23, and 36. Although the left suprarenal body follows within certain limits the level of the pancreas in regard to the kidney its variation is very much more limited than that of the pancreas.

THE LEFT KIDNEY.

The upper pole of the left kidney projected in the average one centimetre above the upper border of the pancreas, having thus an average possible gastric surface of one centimetre, and it was situated one centimetre higher and 0·5 centimetre further outwards than the corresponding point of the right kidney. The upper segment of the left kidney, however, usually reached a little nearer the middle line than that of the right. Its lower pole, a little above a point midway between E, F, and C, D, in the left lateral line, averaged four centimetres above the umbilicus and 3·3 centimetres above the highest point of the iliac crest. In 60 per cent. of the cases its upper pole was not more than three-quarters of an inch from the average, and, without analysing the variations, it is a little less variable in its level than that of the right kidney.

Apart from the general correspondence of visceral levels the left kidney does not seem to vary in its level in any regular manner either with the stomach or the spleen. In fact, as in the case of the right kidney, whilst its enveloping connective tissue remains firm, the left kidney seems in a great measure independent of the enlargements or displacements of the viscera in its neighbourhood.

THE TWO KIDNEYS.

In 29 cases, or 72·5 per cent., the upper pole of the right kidney was lower than that of the left kidney; in three cases it was at the same level, and, in eight cases, or 20 per cent., it was higher. It is interesting to notice that three of these last cases (Cases 2, 7, and 27) of high level of the right kidney as compared with the left kidney were amongst those cases of low position of the liver in which the distance between the upper pole of the right kidney and the upper border of the liver in the right lateral line was least, and in which the question was asked whether the liver had simply descended over the right kidney or had in a measure displaced the kidney downwards. The fact that in these cases the upper pole of the right kidney was higher than that of the left strengthens the conclusion already arrived at that the liver in its descent does not as a rule produce any material downward displacement of the right kidney. In 10 cases, or 25 per cent., the lower pole of the right kidney was not more than one centimetre higher or lower than the highest point of the iliac crest. In two of the cases it was below the level of the crest.

Mr. President and gentlemen, we have had to our hand in these lectures a great amount of material. Many things of interest I have passed over without remark; many others I have but lightly touched; whilst others, which it has been my endeavour to present to you, have been taken chiefly because it appeared that they had a more direct bearing on the practice of medicine and surgery, and they, in many cases, have been passed over so rapidly that I am deeply conscious of the reliance I have placed on your generous leniency. I thank you again for the honour you have done me and for your kind attention.

ON THE IMPORTANCE OF EARLY DIAGNOSIS AND TREATMENT IN SURGICAL DISEASES OF THE ABDOMEN.

BY WILLIAM ROSE, M.B., B.S. LOND., F.R.C.S. ENG.,
SENIOR SURGEON, KING'S COLLEGE HOSPITAL.

THE advances which have been made of recent years in the surgery of the abdomen are unquestionable, and it is beyond controversy that many lives are now saved which would formerly have been sacrificed by the lack of operative interference. The general practitioner is in most cases first brought into contact with patients in the earlier stages of their troubles and it depends upon his accurate appreciation of the earlier symptoms, which are often somewhat vague and indefinite, and upon his prompt action whether a successful issue is attained. The insidious and gradual manner in which abdominal symptoms often supervene is calculated to put him off his guard, whilst the frequency of simple functional disorders of digestion with no organic lesion to account for them is likely to lead him to postpone a thorough investigation until a more serious state of things has arisen. It is seldom that surgeons are called in too early, whilst unfortunately we are often summoned too late.

Putting gynæcological questions aside, the chief conditions for which the general surgeon is called upon to open the abdomen may be conveniently divided into two groups, according to whether they arise as the outcome of inflammatory or neoplastic phenomena, and I think it would be well for us to take a few illustrations of each of these groups and compare the condition of affairs in the early and late stages respectively. Turning first to the *inflammatory group* we have, of course, two main divisions to discuss, according to whether the inflammation involves the whole of the peritoneal cavity or is localised. As illustrations of diffuse mischief let us discuss perforation of a gastric ulcer, perforation or rupture of the intestine, and perforative appendicitis.

1. *Perforation of a gastric ulcer* is by no means uncommon. It involves most frequently the anterior wall, and the contents of the stomach pass into the peritoneal cavity, slowly or rapidly, according to circumstances. This predisposition of the anterior wall for perforation is probably due to its greater mobility and to the fact that it is not covered in by other organs to which it can become adherent and thus prevent extravasation. The patient has usually complained of a train of symptoms which point to the stomach as the seat of the mischief. There have been pain after food, repeated vomiting usually coming on soon after a meal, and hæmatemesis, associated with loss of flesh, general malnutrition, and anæmia. It must be admitted, however, that a certain percentage of cases are at first almost devoid of symptoms. The actual perforation may be brought about by traumatism or during an act of vomiting, or, indeed, may be due to some slight abdominal strain of which no notice is taken. The patient complains of acute pain in the epigastrium, followed rapidly by symptoms of shock. The temperature falls, the pulse is weak and rapid, and the face is ashy pale and covered with a cold clammy sweat, which may also extend to the whole surface of the body. The phenomena of acute peritonitis soon follow, and unless surgical assistance is at hand death rapidly ensues. If anything is to be done it is obvious that it must be done quickly, for the longer one leaves the case the more extensive is the diffusion of the septic material and the less the chance of being able to effectively cleanse the peritoneal cavity. It is worth noting in this connexion that the stomach contents are not usually so virulent as those of the intestine, so that operation undertaken within a few hours of the onset of symptoms has a much greater likelihood of being successful. Furthermore, the length of time taken by the operation is less when done early, as the necessity for wholesale washing out of the general peritoneal cavity does not exist, whereas in the later stages it is almost essential to make an additional opening just above the pubes in order to drain and disinfect the lower half of the abdomen.

2. *Rupture of the intestine* is another instance in which time is an all-important element in the question of prognosis after operation. The contents of the intestine, unlike those of the stomach, are excessively virulent, and hence the conflagration set up spreads with the greatest rapidity, so that the time in which a successful operation can be reasonably expected is shorter than in the former. The site of election of intestinal rupture is generally found to lie in the upper part of the jejunum or in the lower portion of the ileum; in the latter the rupture is generally caused by traumatism, such as a kick or a blow in the abdomen during a game of football. The soft and pultaceous material oozes into the general peritoneal cavity, and unless laparotomy is had recourse to within a very few hours death is certain to result.

The diagnosis of these cases is often exceedingly difficult in the early stages, and yet an accurate appreciation of the nature of the injury and of the initial symptoms would irresistibly cause one to draw the conclusion that some serious internal lesion had occurred. For instance, there is the story of a severe blow followed by fainting and general collapse and succeeded by excruciating abdominal pain. Vomiting, increased resistance of the abdominal wall, and a development of general tympanites indicate only too surely the preliminary phenomena of acute peritonitis and if further time is wasted the surgeon's opportunity for a successful interference will be lost. Unfortunately, in this class of abdominal trouble the symptoms follow each other with such rapidity that at present our record of success is nothing to boast of. As time goes on, it may be hoped that increased familiarity with the symptoms will lead to earlier operations and better results.

3. *Perforation of the vermiform appendix* is, we now know, one of the most frequent causes of acute diffuse peritonitis and, indeed, a great majority of those fatal cases which the medical practitioner used to place in the registrar's records as acute peritonitis without any further comment took their origin from this cause. The chief cause of acute perforation of the appendix is the presence within it of some irritating material which usually takes the form of fæcal concretions, containing the bacillus coli communis in large masses. The pressure on the vascular supply to the mucous membrane and other coats results in loss of vitality, bacterial invasion, softening, and perforation. These several processes follow one another with great rapidity, so much so as to earn the name "fulminating" for the attack of inflammation which ensues. It goes without saying that the earlier this condition is realised and properly treated the better for the individual concerned.

The early symptoms are very similar to those of perforative peritonitis elsewhere—viz., shock, pain, and rapidly increasing distension and tenderness of the abdomen. The pain, however, though often at first referred to the umbilical region, soon becomes most marked in the right iliac fossa, and perhaps a point of maximum tenderness may be found at or near McBurney's spot. Vomiting is almost always present and quickly becomes fæcal. The temperature is not necessarily high, since the patient soon becomes poisoned by the toxic products developed in the peritoneal cavity and then collapse ensues. It is also important to note that no definite tumour is to be expected in these fulminating cases, but there is increased resistance to the hand placed on the abdomen, and this is most marked over the right iliac fossa. The association of these phenomena ought to suffice for the establishment of a correct diagnosis and to be quite sufficient to justify the practitioner in insisting on a prompt operation.

Turning now to the more localised forms of inflammatory trouble the same conclusion is constantly forced upon us—viz., that early operative interference is exceedingly desirable, even if not absolutely essential. Take, for example, the less acute types of appendicitis which are likely to terminate in an acute localised abscess. It is admitted on all hands that the primary cause in these cases is an invasion of the walls of the appendix by the bacillus coli communis with or apart from the streptococcus pyogenes. The inflammation thereby lighted up is by no means of such a severe type and therefore there is sufficient time for nature to organise a barrier of adhesions whereby the spread of the mischief may be checked. Should suppuration now take place around the appendix, an abscess forms, the walls of which are composed of coils of intestine agglutinated together by adhesions of variable strength. In this way contamination of the general peritoneal cavity is prevented, providing that the tension within the abscess cavity does not exceed the powers of resistance in the adhesions. Left to itself the abscess may behave in various ways. In the more favourable cases it may burst into the bowel, and indeed there are some authorities who maintain that all the more severe cases which end in recovery take this course; in others the pus may burrow towards the anterior abdominal wall, and point as a subcutaneous abscess; in others a retro-peritoneal abscess is developed, followed by pointing in the loin. In the more serious forms the leakage takes place into the general peritoneal cavity, and if this condition is not soon recognised death from diffuse septic peritonitis is almost certain to ensue. I have in my mind's eye a case of a man, about 30 years of age, to whom I was called in consultation nearly three years ago. He had what I considered all the typical symptoms of acute localised appendicitis. A tense resisting swelling was present in the right ilio-lumbar region, whilst the whole abdomen was distended with flatus and tender. The temperature was above 100° F., the pulse was rapid, and the countenance was expressive of anxiety. He was lying on his back with his legs drawn up and it was obvious that some serious focal point of inflammation existed in the abdomen. The medical attendant (my senior), however, after listening to the opinion given, expressed a firm belief in the efficacy of time and delay. He advised the administration of large doses of opium and that the question of abdominal section should remain over until the following day. When we met over the patient 24 hours after, there were undoubtedly some more favourable signs—that is to say, less pain and less distension. This was doubtless due to the opium, but the medical attendant thought, on the other hand, that it was the result of a general improvement in the severity of the inflammation. It was decided to postpone any active interference for another 24 hours in spite of my having again urged operation without delay. At midnight I was summoned in great haste and on reaching the patient, who was some five miles distant, I found that matters had gone steadily from bad to worse. The abdominal distension was much greater and the symptoms of general septic peritonitis were aggravated all round. Under difficulties which would not have been present in the daytime I proceeded to perform a laparotomy, and as it appeared likely that an extravasation of septic pus had occurred into the general peritoneal cavity I thought it wise to open the abdomen a little nearer the median line than usual. On dividing the abdominal wall and the parietal peritoneum a quantity of stinking pus escaped and on introducing my hand I soon detected the appendix in its usual situation close to the cæcum and free from adhesions. I placed a ligature upon it without difficulty close to the gut and removed the portion below. The appendix was found to be perforated at a small spot about one inch from the apex and it contained a hard fæcal concretion. The abdominal cavity was next washed out with a hot saline solution and the coils of intestine in the immediate neighbourhood of the appendix were thoroughly cleansed. Twelve-inch strips of cyanide gauze about two inches in width wrung out of hot 1 in 40 carbolic solution were placed between and amongst the coils in the region principally affected, and the ends were left projecting some two inches outside the abdomen. The upper and lower angles of the incision were sutured and these so-called lampwick drains were left undisturbed for 48 hours. The condition of the patient was decidedly perilous, but I am glad to say that his constitutional powers proved equal to the occasion and he made a rapid and satisfactory recovery in the course of three or four weeks. Had the operation been performed three days before I firmly believe that we should have found the general peritoneal membrane unaffected and merely a localised abscess around the appendix.

This, however, is not the only danger which may arise from delay in operating in cases of suppurative appendicitis. The veins in the meso-appendix may become thrombosed, and septic emboli be detached therefrom and carried to the liver, giving rise to portal-vein-pyæmia, or diffuse pylephlebitis, as it is termed. Moreover, a general toxæmia may result if even a localised abscess is left too long untreated, and then when finally an operation has to be undertaken to deal with it a fatal issue supervenes from sheer exhaustion. Finally, it is possible that the whole process may become quiescent and a focus of inspissated pus be left in the neighbourhood of the appendix. No harm occurs unless some sudden strain or blow causes rupture of adhesions and dissemination of the pus into the general peritoneal cavity. I have lately met with a case where a gentleman who had suffered from appendicitis some years previously was stooping to pick up his boy's fishing-rod which had fallen into the sea. The timber on which he was standing was wet, and he slipped, and the effort to save himself gave him a slight wrench of the abdomen. He became sick and faint, and after resting a few minutes was conveyed home in great agony and died from acute peritonitis within two days. At the post-mortem examination it was demonstrated that a focus such as we have been just describing had existed for a long time in the neighbourhood of the appendix, which latter was adherent along its whole length.

From a consideration of cases such as these, which, be it noted, are by no means uncommon in surgical practice, there is no question that the surgeon is inclined to recommend operative treatment at a much earlier date and much more frequently than our medical *confrères* are willing to agree to. Let it be granted that there is a class of mild cases of appendicitis which will get well with more or less rapidity if only the patient is kept quiet in bed, his diet restricted to fluids, and a certain amount of opium administered. But even in such, where the proportion of recoveries is claimed to be about 90 per cent., physicians have to admit that recurrence is likely to take place in at least 30 per cent. of the cases—and remember, these recurrent attacks need not be of the same mild type as the first, and as a result of any of them the patient may rapidly pass into a condition of grave risk. Again, we must not forget that although an attack may commence with apparently mild symptoms one never knows when more acute phenomena may supervene and place the unfortunate patient beyond the help of surgery. Under these circumstances one is forcibly driven to the opinion that surgical interference ought to be undertaken much more frequently and much earlier than it is, and although we may not be willing to agree with the practice followed by some American surgeons—viz., to operate immediately the condition is diagnosed—yet one would be glad to see more active and energetic methods of treatment introduced in this country. When undertaken early the bacterial invasion has rarely spread very far, and with the ordinary precautions that we are in the habit of adopting there is no reason why an operation should not arrest further dissemination.

Turning now to the *neoplasms of the abdominal viscera*, the different possibilities that present themselves according to whether the disease is recognised early or late must be traced out.

Cancer of the stomach manifests itself in a number of different types. When the cardiac orifice is involved the chief symptoms are inability to complete the act of deglutition and the regurgitation of food at a variable time after its ingestion according to the amount of dilatation of the œsophagus which has taken place; as a general rule, the food is retained for a few minutes or even perhaps half an hour, but its retention is accompanied by pain which the patient usually refers to the middle of the back about the eighth dorsal vertebra. Unfortunately, there is no possible means of dealing radically with this affection and yet there is an important point to note in connexion with our subject—viz., that the only operation which can in any way alleviate the symptoms—that is, gastrostomy—must not be left till too late. Undertaken early it gives a very appreciable amount of relief to the patient, and I have even known of cases where the patient put on weight afterwards and lived for 12 months; in some the power of normal deglutition returned in measure and thus the patient was able to take in nutriment in two different directions. Generally, however, these patients are sent to us for operation only when all power of deglutition has disappeared, or at any rate when they can only with difficulty swallow fluids; they are in a miserably emaciated condition, and the operation of gastrostomy is a severe tax to their powers, and hence the death-rate is high and the amount of relief given very slight.

There are two chief ways in which cancer attacks the body of the stomach—viz., it is either a localised nodular growth or a generalised infiltration, the latter being the more common. In the former type the growth, which is a columnar carcinoma, constitutes a hard tumour of slow development, which unfortunately gives rise to but few symptoms. The organ is not enlarged; there is no stenosis of the orifices; vomiting is slight and has but little relation to food; and hæmatemesis is often absent. The patient complains of pain somewhere in the region of the stomach, the site varying with the position of the ulcer, and a lump may be felt if the growth is on the anterior wall. Steady loss of weight will be an important symptom. In the diffuse type of cancer of the stomach the organ becomes much contracted, and in one case recently reported by Dr. Bryant in the *Clinical Journal* the organ, which normally can hold three pints of liquid, could only retain two ounces. The walls of the organ are thick and hard, constituting a solid mass which can frequently be detected by palpation in the epigastric and left hypochondriac regions. Vomiting is an invariable sequence of this affection and usually follows the ingestion of food within half an hour; there is little or no hæmatemesis since the mucous membrane is intact and free from ulceration.

In either of these conditions lymphatic troubles soon follow, the glands lying above and below in the lesser and greater omenta first becoming involved; subsequently those lying in the portal fissure become also affected and these may lead to ascites or jaundice from pressure on the portal vein or bile-duct. Locally the growth may contract adhesions to surrounding viscera or may extend into the substance of the great omentum, which may develop into an enormous mass of cancerous disease and perhaps undergo colloid degeneration. It is obvious that early diagnosis makes all the difference in the world in the result of such cases, and that failing the establishment of this diagnosis the patient must inevitably and quickly succumb. The very fact that a diagnosis is a matter of difficulty emphasises the statement that should a patient present himself with a story of persistent vomiting which medicines are unable to control, together with fixed pain in the region of the stomach and perhaps a feeling of resistance in the epigastrium, even though no actual tumour can be felt, and still more if there be some history of preceding hæmatemesis—then under these circumstances it would be perfectly justifiable to propose and to execute an exploratory laparotomy with a view of settling the question as to the existence or not of malignant disease, and then it may be possible to effect a cure And here let me state very emphatically that whilst early operations on the stomach hold out considerable prospects of cure, if the disease is allowed to invade the whole organ they become matters of the greatest gravity and in many cases the abdomen has to be closed and the unfortunate patient relegated to his unhappy fate without hope of relief or cure Let me lay before you a few facts as to the present position of the operative treatment of malignant disease of the stomach which I have gathered from the second edition of Mr H T Butlin's valuable work on "The Operative Surgery of Malignant Disease"

Operations for excision of cancer of the stomach are of comparatively recent introduction, but already a considerable mass of information is obtainable Excision of the whole stomach or of the greater portion of it has been undertaken in 14 cases with five deaths and in all of the fatal cases the cause was shock and not sepsis Partial gastrectomy for malignant disease is a very unusual proceeding, as so few cases are met with in which it can be usefully practised; there cannot be the slightest doubt that were it adopted in suitable early cases a large measure of immediate success would accompany it

As to the question of final cure after these proceedings the following facts may be mentioned Porges removed nearly all the stomach for cancer and the patient was alive and well six years afterwards In Schlatter's well known case of total gastrectomy the woman died from secondary cancerous deposits one year and two months later, but there had been no local recurrence Schuchardt's patient had all the stomach removed except a strip near the cardiac extremity, she died from cancerous pleurisy three years later, whilst the portion of stomach left to her had dilated sufficiently to allow of the introduction of 500 cubic centimetres of food Most of the other cases are too recent to be of any statistical value Ricord has lately recorded a case[1] in which he removed the whole stomach, the first part of the duodenum, and a considerable portion of the pancreas which was infiltrated by the cancerous growth, and the patient was alive and well 11 months later

Cancer of the pylorus usually gives rise to a much more definite and characteristic group of symptoms It is a hard cancer of the *scirrhous type and therefore* develops slowly, and thus allows a margin of time in which curative operations may possibly be undertaken with success The growth limits itself in a curious fashion towards the duodenum, but spreads freely into the adjacent portion of the stomach It tends to involve the whole of the pyloric orifice, and thus stenosis is usually produced before the growth has lasted very long Dyspepsia of a gastric type—i.e., pain after food, especially if it be of an indigestible character—a
vomiting will be the earliest
before long the symptoms of
every two or three days the
quantity of semi digested fo
undergoing fermentation, as indicated by the existence on the top of a frothy scum Any lump that forms is to be *detected on the right of the* median line, and partly owing to the weight of the mass, partly to the dilatation of the stomach, this will be felt below the normal position of the pylorus—i e, not far from the umbilicus In the earlier stages this growth is moveable and free from adhesions, whilst lymphatic complications are not very rapid in their development. It is thus obvious that granted a diagnosis before fixation of the neoplasm by adhesions or before such lymphatic developments, there is a *prima facie* probability that removal may be successfully accomplished The *operation of pylorectomy* was, however, at one time looked upon as such a dangerous proceeding as to almost put it out of the pale of justifiable operations, thus Mr Barker states that a mortality of 76 5 per cent was connected with it during the eight years between 1882 and 1890 Fortunately, our methods have so improved of late that the same authority states that the death-rate during the years 1890 to 1898 had been reduced to 28 6 per cent, whilst individual operators could claim even better results from their work Thus Kronlein lost only two out of his last 20 cases, and
last 10 As to the ultimate
Haberkant has collected 51
after history are known: 26 of the patients died within from one to six years, 23 dying within two years; 21 were alive and well at periods varying from one to eight years after the operation; four were alive and well beyond the three year limit, and four were alive with recurrence. Kronlein and Mikulicz have operated on 35 cases in all, six were fatal directly as the result of the operation, 16 occurred after operation, two patients died within a year, but not from the cancerous disease, two were well within from one year to two years of the operation; and two only were alive after four years Fr
that although up to the present
been finally saved from the clu
that is mainly to be attribute
diagnosis and consequent treatr
is finally fatal the patient is much more comfortable after operation than before, and all the accounts go to prove that local recurrence is infrequent

Should pylorectomy be impracticable owing to the extent of the disease, all that the surgeon can do for his patient is to perform a gastro-enterostomy which has a death rate of at least 10 per cent attached to it, and which at the best can only give relief for a few weeks or months It is obvious how very important the question of early diagnosis becomes in such a disease as this, and that in cases of doubt there should be no hesitation in the general practitioner suggesting expert advice and the performance of an exploratory operation

Passing now to the subject of *intestinal cancer* one has in the first case to note the extremely insidious character of its onset, although the affection itself is to be looked on as less malignant than cancer in other parts of the body Frequently there is very little indication of its presence until stenosis of the intestine has progressed to such an extent as to lead to obstructive phenomena, whilst the appearance of a lump is often delayed to a period when the disease has gained such a foothold in the patient as to render all attempts to extirpate it nugatory Progressive wasting and recurrent attacks of paroxysmal pain with irregularity of the bowels (usually consisting of periods of constipation followed by diarrhœa) are the only early phenomena which suggest its presence. It must also be noted that the large gut is much more frequently attacked by this affection than is the small gut

As to the results of operative interference statistics do not give very favourable figures I shall only take
growth could be at once
is to say, one has to
disease when obstruction existed and a temporary or permanent opening had to be established The immediate death rate connected with this operation is about 35 per cent Lardennois, who has laboriously investigated this matter, gives the following figures —

—	Cases.	Deaths.	Mortality.
Removal of the cæcum and ascending colon	79	28	35 4 per cent.
Removal of the transverse colon	66	25	37 8 „
Removal of the sigmoid flexure ..	36	12	33 3 „

The question of actual cure must at present be admitted to be in an uncertain condition, since the better and safer methods of enterectomy have only been recently introduced Von Bramann relates 14 cases six patients died directly as the result of the operation; there was one recurrence, *three were alive less than three years afterwards,* and four were alive more than three years afterwards Czerny has performed 18 such operations with nine deaths and three recurrences. Three patients were alive less than three years, and three were alive more than three years after operation. The conclusion that is irresistibly drawn from these figures is that in spite of the extensive nature of the lesion in many of the cases *there has been a very gratifying* degree of success, although one cannot but admit that the mortality has been high, whilst one is also justified in believing that had many of these operations been performed at an earlier date the results would have been much more satisfactory Three chief causes of death have been alluded to—viz, shock, sepsis, and recurrence Early operation, by lessening the magnitude of the proceeding and consequently by diminishing the time occupied, would lessen shock. The better condition of the patient's general health and nutritive state would increase his germicidal powers and minimise the risks of sepsis which would then mainly depend on errors in the operative technique which should be easily avoidable. Lastly, it goes without saying that the earlier the operation, the less the likelihood of recurrence.

---

[1] Gazette des Hopitaux, March 22nd, 1900.

Space does not permit me to discuss many other surgical affections of the abdomen in which the same conclusions might be drawn as to the serious consequences which are likely to ensue from a *laissez-faire* course of action until the diagnosis is made obvious by complications which render curative treatment impracticable.

In emphasising the importance of making an early diagnosis it may be useful to pass in review the salient features and the chief signs and symptoms which should be looked for as soon as the practitioner is called to the case. In the first place, it is usually possible to get some general idea as to the particular region affected or as to the probable nature of the case from a consideration of the more prominent symptoms present and the method of onset of the attack. Thus an old-standing history of repeated vomiting, perhaps associated with epigastric pain, suggests the stomach as the site of the lesion. An attack which commences suddenly with abdominal pain and vomiting suggests an acute inflammatory lesion, or possibly perforation or strangulation; then, if the temperature is high, the former of these lesions is the more likely, whilst a normal or subnormal temperature is indicative of the latter. Then, too, the localisation of the pain may be suggestive—e.g., pain in the right iliac fossa leads one to suspect appendicitis, although in this affection it is often referred in the first place to the umbilicus. The greatest difficulty will always be experienced in those cases where the symptoms are from the first vague and indefinite and the onset is very gradual. The age and sex of the patient will also have an influential bearing in forming an opinion. Thus, malignant disease of the abdominal viscera is unusual before the age of 40 years, although sarcoma of the kidney, and occasionally of the intestine, is seen in the first decade of life. Inflammatory diseases are more common before the age of 40 years. In children acute abdominal mischief is probably due to intussusception or appendicitis, whilst more chronic affections suggest tuberculous peritonitis or a similar disease of the mesenteric glands. It is also useful to note that appendicitis is more frequent in men than in women in the proportion of about four to one; gastric ulcer is infinitely more prevalent in the female sex, whilst ovarian and tube lesions should not be overlooked. The previous medical history of the patient may throw light upon the case. Thus one or more attacks of prolonged vomiting after food together with hæmatemesis would suggest some of the sequelæ of gastric ulcer, such as stenosis of the pylorus. An earlier attack of dysentery may be the cause of stricture of the rectum or sigmoid colon. Prolonged diarrhœa and abdominal pain in a patient with a tuberculous history would suggest the possible existence at an earlier date of tuberculous ulceration of the bowel, and this may result in stricture, usually of the small intestine. A former history of severe colicky pain in the right hypochondrium, followed by jaundice or at least by an icteric tinge about the conjunctivæ, would lead one to suspect some of the sequelæ or complications which arise from gall-stones. Previous attacks of pain in the right iliac fossa together with vomiting would make one suspicious of some chronic trouble in connexion with the vermiform appendix, whilst if the pain were lower down in the pelvis, and especially if associated with backache and aggravated at the menstrual periods, ovarian or tube disease would be thought of. Persistent loss of weight is, of course, an important and suggestive phenomenon, frequently pointing to malignant disease, but one must not allow this symptom undue importance, as it may be due to simple malnutrition from functional causes connected with chronic dyspepsia. It is also well to find out the occupation of the individual and to inquire into his habits of life, as some useful information may be thereby obtained. It is only necessary to mention the association of intestinal colic with lead-poisoning in plumbers and house-painters to illustrate the force of this remark, whilst an alcoholic history may explain a hæmatemesis which would otherwise suggest ulceration of the stomach.

We must not, however, allow ourselves to be unduly biased by these symptoms or carried away by these considerations, important though they may be, without bringing forward either in support or opposition every fact that can be elicited by physical examination of the patient and of the abdomen. In the first place, one may learn a good deal from a careful notice of the general aspect and facies of the individual. A placid, calm expression of the face usually indicates that there is no mischief of an acute, active, or urgent character present in the abdomen, for when such mischief exists there is a pained, drawn, and anxious look, the face being pinched and pallid, whilst in conditions of acute obstruction or strangulation the forehead may be covered with a cold, clammy sweat. Again, a hectic flush on the cheeks would suggest some chronic toxæmic condition, and granting that the mischief is limited to the abdomen one would naturally think of tuberculous peritonitis. A yellowish tinge of the face would in like manner lead one to suspect the liver as the cause of the trouble. In the next place we should notice the decubitus, as to whether or not the patient always lies on his back, and if so whether the legs are drawn up as in peritonitis; possibly in appendicitis only the right leg would be thus flexed.

Having obtained all the evidence possible by such observations as these we come to the actual examination of the abdomen, and in order that it may be thorough and exhaustive (as it should be even in apparently trivial cases) it is essential that the whole abdomen should be bared and exposed to view, whilst when one commences to palpate the knees should be drawn up so as to relax the abdominal muscles. To commence with, the practitioner should notice the general contour and condition, whether there is any general or localised distension or flaccidity, and if the former where it is located. Central distension frequently indicates an ovarian tumour, a distended bladder, or obstruction to the small intestine, whilst bulging of the flanks is significant of a dilated colon or of dropsy. The appearance of an abnormal projection of a limited portion of the abdominal wall suggestive of the presence of a tumour can sometimes be observed. A swelling located in the epigastric and left hypochondriac regions suggests a tumour of the stomach; a pyloric tumour usually presents a little to the right of the umbilicus and just above it; a distended gall-bladder can often be seen during the movements of respiration below the costal margin in the right hypochondrium; whilst a projection in the right iliac and lumbar regions may possibly be due to an abscess round the appendix or to malignant disease of the cæcum; an obvious enlargement in the left lumbar region may be due to either spleen or kidney. Dilated coils of intestine can sometimes be seen, and when this is the case it is not unusual to be able to see them traversed by a wave of peristalsis; such a condition is indicative of chronic obstruction due to some narrowing of the intestine, either simple or malignant. Then again we must note the character of the respiratory movements and how far the abdomen participates in the process. In almost all acute peritoneal lesions thoracic respiration is alone utilised. Where there is an obvious tumour the influence of the respiratory act upon it must also be noted, since it is only in those which are more or less directly connected with the diaphragm that downward displacement occurs during inspiration. Of course, any localised area of redness, particularly if this spot is œdematous, would suggest that an abscess is travelling towards the surface.

Having learnt all that is possible by simple inspection we should next proceed to palpate the abdomen, and in doing so we should endeavour to get the abdominal muscles relaxed as much as possible. To this end not only should the patient's knees be raised, but his mouth should be open and he should be told to breathe in and out quietly and regularly. The examiner's hands should be warm and care should be taken not to suddenly drive one's fingers into the patient's abdomen, but the flat of each hand should be gently placed on it and the pressure gradually increased. The tension of the abdominal parietes should first be observed and, supposing there is a sense of resistance, whether it is general or local. Next it should be ascertained whether marked tenderness exists, and if so an effort should be made to localise the point where it is greatest, whether in the epigastrium, as in cases of perforated gastric ulcer, or in the iliac fossa, as in appendicitis, or elsewhere. In chronic cases careful examination for a tumour should be made and if one should be found it would be important to ascertain by this means whether it is moveable or fixed; whether the respiratory movements influence its position; whether it is solid or fluid; whether it is smooth in outline or nodulated; and if possible to determine with what viscus it is connected. To this end a bimanual examination is sometimes useful, the second hand or some part of it being placed either behind the loin, as in suspected renal tumours, or in the rectum or vagina if there is any suspicion of its being connected with the pelvic viscera. Percussion is another valuable agent in the examination of abdominal swellings, although it must be admitted that the mobility of the small intestine and its ready displacement may lead to an incorrect interpretation of facts. In particular it may *be mentioned here that tumours of the kidney* are always dull in the flanks, but even when of large size a line of resonance may be detected running longitudinally over them in front, due to the presence of the colon. Splenic enlargements or a dilated gall-bladder, on the other hand, will follow the anterior abdominal wall, and it is rare for intestine to be found in front of them.

In addition to this routine method of examination special and confirmatory evidence may be derived in investigating the lesions of particular regions. Thus in affections of the stomach it is often desirable to ascertain the character of the gastric secretion, the capacity of the viscus, and whether or not its contents are passed onwards in the usual time. To investigate the first of these it is necessary to give the patient a test meal and then remove the contents of the stomach for chemical analysis about an hour afterwards. The meal consists of a cup of weak tea without much milk and a thin slice of toast administered the first thing in the morning on presumably an empty stomach. The chief point required in *the analysis is the amount and character of the* acid secreted, since in carcinoma the percentage of hydrochloric acid is usually very much diminished, whereas in other conditions it may be increased. In the same way by the introduction of a tube the capacity of the organ can be ascertained.

Accessory means of diagnosis at our command in connexion with affections of the intestines are unfortunately very limited; and I may mention here the fact that examination under an anæsthetic, though often utilised, is not of much real value, since in the early stages a tumour or other affection is usually so small that it cannot possibly be detected even in a thin person, whilst the addition of a thick layer of subcutaneous fat still further adds to the [illegible] bowel, or where disease is suspected, it is always desirable to make a careful rectal examination, whilst in females an examination per vaginam may also be employed. Thus in appendicitis a tender spot may sometimes be found high up in the bowel on the right side, especially in those cases where the appendix is directed downwards and *backwards,* under which circumstances an abscess connected with it tends to travel towards the pelvis; in many such cases, although the abdomen may be generally distended, there is no lump to be felt in the iliac fossa and no tenderness. Again, a rectal examination must form part of the routine method of investigating any and every case of intestinal obstruction. Surgeons have been constantly called in to cases of this nature where, had this precaution been previously taken, the necessity for their being summoned would not have arisen. Large masses of fæcal accumulation have been the sole cause of the trouble, and the administration of a few enemata and the removal of scybala if need be, by a suitable spoon, will clear up the case. I recollect being called down into the country to a case of intractable anal fistula which had been slit up in the usual manner nearly two months previously. Iron had been freely administered as a tonic, but the wound would not heal. On inquiring as to the state of the bowels I was informed that there was a constant diarrhœa present. On exploring the rectum with the finger I found a large hard fæcal [illegible] foreign body was followed in the course of a short time by the healing of the wound. Once more it must not be forgotten than in children a rectal examination in cases of obstruction *may reveal the existence* of an intussusception, although we may hope that a diagnosis would be made long before the apex of the intussusception had reached the rectum.

Assistance in diagnosis is often derived from the passage of a catheter or sound into the bladder, and the use of the former has in many cases resulted in the rapid disappearance of what had previously been supposed to be an abdominal tumour.

The radiographic process unfortunately does not help us much in the investigation of abdominal cases. It may be useful to locate a foreign body which has been swallowed, or a bullet, and in some very thin persons a stone in the kidney has been detected, or a Murphy's button in the intestine. The resulting photographs are generally so indistinct as to be of no practical value, but it is quite possible that this process may be improved upon.

Having thus exhausted all possible means of investigating *the case, one may hope that some tolerably clear idea as to* the nature of the lesion has been arrived at, even if an actual diagnosis cannot be given. Of course, we cannot close our eyes to the fact that functional troubles occasionally arise with a group of symptoms so like those produced by organic disease that it is almost impossible to differentiate between the two apart from an exploratory incision. Thus in the aged the functional activity of the various abdominal viscera is often much diminished, giving rise to phenomena very like those of actual disease—e.g., a loss of tone of the intestinal wall may cause marked constipation, flatulence, and even obstruction, or a similar condition of the stomach may lead to dilatation of that viscus suggestive of pyloric stenosis. It is abundantly clear that the symptoms of organic disease and functional trouble overlap, and therefore in a certain number of abdominal cases the diagnosis will always remain indefinite. In such circumstances the patient should be told the facts, the advantages and risks of an exploratory operation should be pointed out, and the *decision should be left to him or her,* or in the case of the young to those in responsible charge.

Harley-street, W.

POST-PARTUM HÆMORRHAGE.[1]

BY E. STANMORE BISHOP, F.R.C.S. ENG.

I WELCOME this opportunity of bringing before you a subject which is interesting and important to all medical men—doubly important, I conceive, because when a case illustrating it occurs to them they find themselves suddenly, almost without warning, in the presence of a crisis in their lives. Immediately they must decide upon their course of action—there is but little time for careful consideration, seldom time enough for consultation with others, never for recourse to books. There and then they must act; and upon their action depends the life of one person certainly, probably *of two,* and the happiness or misery of the family whose whole reliance, whose whole trust rests on their shoulders. When this crisis arrives there is no place for discussion. Each man must go into the fight with a clear cut idea in his own mind of what he has to do, why he has to do it, and how it should be done, and upon the truth or otherwise of his idea will depend the result. Is it not well, therefore, that now, whilst we can coolly and calmly do it, we should examine our ideas and make certain that they are correct, so that when that crisis arrives, as it is almost certain to do with each one of us, there may be no doubt, no hesitancy, *no fear* in our action?

The necessity for some definite utterance on this subject has been emphasised by the debate which took place last year at the meeting of the British Medical Association at Ipswich. It was there demonstrated that the ideas as to treatment expressed by those representatives of obstetrical *science* who were then present are still the same as those to be found in all manuals on obstetrics for the last 40 years. Professor J. W. Byers who opened the discussion, Dr. R. Boxall who represented the intended introducer, Dr. W. R. Dakin, the President, almost everyone who spoke, showed plainly that the same fundamental ideas were present in all their minds and influenced all their advice. That ideas are old is, of course, nothing against them. If they are true time can but more thoroughly demonstrate their truth. If they are true time will not only do that, but it will eliminate every particle of doubt as to their application in any given case—will enable their holders to act definitely and with confidence, knowing that their confidence will be justified by the result. Conversely, if the teachers and holders of certain ideas speak as vaguely and tentatively now as to practice as they did 20 years ago, it is at least suggestive of the unreliability of the governing principles which they hold.

---

[1] A paper read at the opening of a discussion at the Clinical Society of Manchester on March 20th, 1901.

Now, the duty of the opener of a discussion, as I understand it, is usually to place before the members present all the points in the subject in question *seriatim*, dealing with etiology, symptoms, pathology, treatment, prognosis, in direct order, being chiefly careful to omit nothing and expressing no very strong or decided opinion himself, but leaving the whole question open for those who are to follow. After what I have said, however, you will probably not be surprised if I depart somewhat from that method to night—so admirable in the majority of cases—because I fear that the result would not be that at which I am aiming.

Permit me, as a preliminary, to sketch as briefly as possible a case of this kind. Those of you who have encountered a really severe case will, I think, agree as to its fidelity to truth; those who have not will perhaps more clearly realise thereby the various points which I wish to emphasise. You have attended what has appeared to be an ordinary confinement—ordinary in every way probably, though sometimes certain things may have been noticed which differed from the typical condition. It may have been a primipara, and the young mother has welcomed with intense delight the new interest in life which has just been shown to her. The memory of previous pain is obliterated at once by the touch of the tiny fingers. She is happier than she has ever been and is looking forward to the blissful days in store for her with her little one to care for, to pet, and to be proud of. The young father has half wrung your hand off in his feeling of intense joy and gratitude to you for your skilful management of what to him is still the severest and most amazing operation of modern times, when the nurse mentions casually to you that there is rather more "loss" than she thinks there should be. You look at the napkin she holds out for your inspection. It is soaked with blood. You raise the bedclothes to inspect. The lower sheet is soaked as well and blood is gushing out of the vulva. The patient's face is paler, too, and her pulse is thin and rapid. You feel for the uterus, which a few moments ago you had left hard and firm above the pubes. Where is it? There is nothing here but a soft, rather full, pulpy sensation, which may be intestine or a totally relaxed uterus. Feeling about you detect a faint outline of what may be that organ. Compressing this you note with delight that it sensibly becomes firmer under your pressure. Continuing along its line, gradually more and more of the surface becomes palpable, firm, and resistant. You seek further still and in order to compress the new portion you relax your grip upon that which you at first held; that is firm, it will surely remain so whilst you attend to the rest. You succeed with the latter part, and bringing it down to the level of the first you pretty confidently pass your hand to the point at which you left that, but it is no longer there: it is where you found it at first and as flabby as ever. Calling the nurse you place the part which you have contracted in her hands, telling her to hold it fast, whilst you once more search for and compress your original portion. Having succeeded to some extent, but not so completely as at first, you tell her to remove her hand, so that you may compress the two together. That in its turn is gone, the nurse does not know how, "It just slipped away," and you can feel that the part you yourself are holding is just "slipping away" too. Meanwhile the flow of blood from the vagina has not decreased. It is if anything freer and more copious. The anxiety now written on your face and your efforts have not escaped the eyes of your patient, or of her husband. Her own rapidly-increasing weakness has made her irritable and nervous. "What is the matter, doctor?" comes from both. "Am I going to die?" is added by the patient. By an effort you control yourself. "Die!, nonsense," you say. "There is rather more bleeding than there should be, but we'll soon put that right. You just lie quiet while we get this stopped." "And you," to the husband, "had better go downstairs for a while. We'll call you up again as soon as we can." The husband departs, half satisfied. The wife, with "Oh, I do feel so ill," tries to be quiet. You get your hypodermic case and inject strychnine and ergotine; whilst the nurse gives the patient some brandy. Once more you try to force that sluggish uterus to contract by firm kneading of the abdomen. Once more the same half result, exciting your hopes at one moment, only to dash them to the ground at the next. "Send someone round to Dr. Jones," you say to the nurse; "tell him I should be very much obliged if he would come here." "Now," to the patient, "don't be alarmed, but we shall have to try something that requires two men, that is all." You get your bottle of ergot and give her a teaspoonful. "Oh, doctor, that *is* nasty, oh! oh! I'm going to be sick," and up comes your ergot again, with the brandy she had previously taken. You keep your hand on the uterus—or rather on the place where the uterus may be supposed to be, for you cannot feel it—whilst she vomits, but in spite of your pressure blood continues to flow as freely as ever. "Nurse, have you any very hot water?" By great good luck, which is not always to be depended on, she has plenty. By the same good luck the man you believe in most walks in at the same moment. "Good," you say, "now we shall do. Jones, this is 'p.p.h.' Just help me, will you? I am going to inject hot water." "Right," says he, pulling off his coat, "just let me sterilise my hands." "Oh, don't wait for that," you say, "she's pretty bad." By this time the patient is beginning to toss about and gasp slightly as if for breath. However, you get her into position and pull down the uterus with a vulsellum; the bleeding is still free, but a little checked. You pass in a long tube right up to where the fundus should be and pump in your hot water. A number of clots are washed out and the amount of blood following appears to be decidedly less. More and more hot water is used and at last it returns almost clear. "That's done it," you say; "now we shall be all right. Don't be afraid, Mrs. Smith, you're all safe now." "Oh, doctor, what is the matter, oh, I *am* ill. I'm going to be sick again." "Try not to, Mrs. Smith—here, suck this ice, that will stop it." For two or three minutes she is quiet, but her breathing is very short and quick, then she begins to be restless again, and suddenly vomits. As she does so you see the red gush of blood from the vulva once more. "What had we better do, Jones? you see she has spoilt it all by that vomiting." "Better use the hot water again, it stopped it splendidly the last time." So you repeat the performance whilst Jones squeezes the abdomen with all his force. This time the hot water certainly checks the bleeding, but not so completely. This may be due to the increasing restlessness of the patient who can with difficulty now be induced to be still enough to allow you to do what is necessary—you fear that your tube perhaps did not reach the fundus, though you passed it as far as before or further. But Dr. Jones reminds you that some clots or a bit of placenta may not be dislodged, and we are all taught that the presence of a clot or of a fragment of afterbirth acting as a foreign body may perpetuate the bleeding; so you pass in your hand and find it apparently in the abdominal cavity, for no boundary can you feel. The only thing which calms your anxious mind—now extremely anxious, not to say nervous, since the bleeding is freer than ever and the patient's lips and eyes are white—is the fact that you feel no intestine; otherwise you would be apt to fancy that the uterus had ruptured and your hand had passed through the rent. You bring out a few clots and pass your hand in once more. Apparently there are just as many clots as before. "This won't do, Jones." "Have you any ice?" to the nurse. Yes she has some, and you inject ice-cold water. Again a check for a few moments. "Inject some more strychnine and ergotin, will you, Jones?" Jones does so, and looks very gravely as he inspects the pulse, conjunctivæ, &c. "She's very bad," says he, "I think you had better pack her. I have some iodoform gauze," and he produces a six-yard packet. You forcibly pull down the uterus with vulsellum forceps and clean the vagina, which you can easily do, for, curiously enough, as soon as you apply firm traction the worst of the bleeding abates. Note this fact, for I wish to call your attention to it later. Very carefully and methodically you clear out the clots from the interior of the uterus and proceed to pack in the gauze. You pack it all in, every bit, and you feel happy, for during the process no bleeding of any consequence has occurred, and you take off your vulsella and allow the os to reascend. But a glance at the patient's face makes you uneasy again; the pulse, too, is very quick and thin; this, however, may be only the natural result of the blood already lost. Jones puts his hand on the abdomen. There is no firmly contracted uterus to be felt—merely an increased fulness where the gauze lies. "Are you sure," says he, "that you packed the uterus itself?" "My dear fellow," you reply, "I put in enough to make her a ball-dress, and I will swear that it went into the uterus. Shall we pack in some more?" "Well," says he, "I don't like her looks. She looks very much to me as if there were some concealed hæmorrhage Her pulse, too, is very rapid It hasn't made the uterus contract at all, and, for anything we know, she may just be bleeding away as fast as ever, and it wouldn't show until too late I think, don't you? that we had better have it out again and use the injection of iron Besides, after all, it is a foreign body, and you know foreign bodies in the uterus, if they don't make it contract, set up acute dilatation, and we shall be worse off than before Better use the iron, that is our 'last resource' and surely we are justified now in trying it Barnes says it is very effectual" So you set to work and pull it all out again, which takes a little time, but Jones is justified, for as soon as you unplug the cervix out comes once more a perfect rush of blood and clots The patient is tossing wildly now, trying to sit up, gasping for breath. "Oh, doctor, doctor, am I going?" and then she vomits again "Oh, nurse, oh, my poor little child I'm dying, I'm dying Send for my husband," and all the rest

which

o take

ection

to be

used when evrything else has failed, as in some cases it has directly killed the patient With increasing difficulty, owing to the increasing restlessness, you get your tube in once more and pump in the iron God be thanked the bleeding stops, the whole discharges are blackened, and the flow ceases; but whilst you are congratulating one another a thin, bright red line trickles out once more over the black surface, becoming freer, fuller, brighter You pump in more iron solution, same result Hope for

ment, almost despair, the next

become strangely still and Jone

her face and he seizes her wrist "By Jove, she's going," says he, and rushes for brandy A teaspoonful of this he tries to get her to swallow. The spoon rattles against the clenched teeth, the brandy runs down her face, and with a few long-drawn sighs, with wide open eyes and dilated pupils fixed on you, it seems to you reproachfully, she is dead

I pass over, though you will not, the sudden wretched desolation of the husband, so much the more poignant because so unexpected, the interview with whom will be one of the saddest you will ever have to face

I said that our dying patient looked reproachful, and no one who has been through such a scene but will understand why we should fancy so, and how her look will haunt us for days whilst we go over and over again all that has happened, and ask ourselves everlastingly, "What more could we have done? and why did not our measures succeed?" In the case which I have supposed everything appeared to be in our favour We had a young healthy woman, our friendly medical brother appeared as soon as wanted; everything was at hand and had not to be waited for Had things been otherwise, as they usually are, we might have blamed the lost time, but that is here impossible and yet we failed Why?

Now you will notice, if you look back, that all our efforts were directed to two definite things We had two definite aims—viz, first to obtain and,

secondly, in our last effort, the

blood in addition Well, ities

lay stress upon the absolute necessity of obtaining uterine contraction at any cost As to this point, which is all important to my argument I had prepared numerous extracts from Playfair, Galabin, Dakin, and Jellett, all of them text books in use at the present moment in the various medical schools; but it was soon evident that I should only weary you if I attempted to read them all One, however, I venture to give you, somewhat condensed, it is true, but merely omitting non essentials For the rest I confidently appeal to

your own memor

drilled into yor

authority I choo

is perhaps the be

and *enforces* hi

leaves no doubt

views on this m

means which nat

hæmorrhage so

into two classes

uterine contracti

bosis in the vesse

used, and it is only in the worst cases, in which they have been assiduously tried and have failed, that we resort to those coming under the second heading" And Galabin says; "The essential point in treatment is to secure contraction of the uterus" Playfair continues. "If the uterus be found relaxed and full of clots, by firmly grasping it in the hand contraction may be evoked, its contents expelled, and further hæmorrhage at once arrested. Another method of applying uterine pressure has been strongly advocated by Dr Hamilton It consists in passing the fingers of the right *hand high up into the posterior cul de sac of the vagina*, whilst counter pressure is exercised by the left hand through the abdomen During the time that pressure is being applied a full dose of ergot should be administered, and if one has already been given it should be repeated We cannot, however, look upon ergot as anything but a useful accessory, and it is one which requires considerable time to operate" (and the time at our disposal is to be measured by minutes, not by hours) "Hypodermic ergotine offers the double advantage in severe cases of acting with greater power and much more rapidly It should, therefore, always be used in preference" Then he mentions brandy in order to warn you against making the patient drunk; and hypodermic injections of sulphuric ether when exhaustion is very great "Open the window, remove the pillows, keep the head low, and 'assiduously' fan the patient It is often found to be useful to raise the feet of the bed on blocks of wood or books, so as to have the head lower than the pelvis This will favour the current of blood to the head and lessen the tendency to syncope *If bleeding continue* the hand should be carefully and gently passed into the uterus and its cavity cleared of its contents The mere presence of the hand within the uterus is a powerful inciter of uterine action When the placenta is retained it is the more essential as the hæmorrhage cannot be checked as long as the uterus is distended by it, Various means are used for exciting uterine contraction by reflex stimulation Among the most important of these is cold but to be of use it must be used intermittently and not continuously Ice can generally be obtained, and a piece should be introduced into the uterus. A large piece of ice may also be held over the fundus, and removed and re applied from time to time A very powerful remedy is washing out the uterine cavity with a stream of cold water by means of the vaginal pipe of a Higgenson's syringe carried up to the fundus. All these remedies, however, depend for their good results on the fact of the patient being in a condition to respond to stimulus, and their prolonged use, if they *fail* to excite contraction rapidly, will certainly prove injurious. Intra-uterine injection of hot water at a temperature of 100° to 120° has been highly recommended as a powerful means of arresting post-partum hæmorrhage, often proving effectual when all other treatment *has failed* *My own experience* of this treatment is very favourable" He quotes Lombe Atthill as having published cases in which this method was successful and Milne Murray's experiments on rabbits as to the effects of hot and cold water in producing contraction. "Since 1887, plugging the uterine cavity with iodoform gauze and pledgets of cotton has been," he says, "advocated thoroughly in Germany, chiefly by Dührssen but since the publication of his paper a large number of successful cases have been published in which this treatment has been adopted so that it must be admitted as a useful resource in certain intractable cases I have no personal experience of this treatment, but the evidence in its favour is strong It is clearly one which can only be resorted to in very intense cases of hæmorrhage when all other means have *failed* It will obviously be essential to carefully watch the uterus, to make sure that blood is not escaping into and distending its cavity above the plug If the uterine cavity should be only partially or ineffectually filled concealed internal hæmorrhage might very readily be going on without the practi-

rta is

It is

been

the theoretical ground that the

ous and not arterial, and that it

x of venous blood into the cava",

lves ceased to act? and is all we

to be thrown aside

know of t

that on account of

in these

the aorta and the

the close

ompress one vessel

vena cava

---

[1] Science and Practice of Midwifery, vol. ii., eighth edition, 1893.

without the other." (These two objections, it will be noticed, are mutually destructive, and besides, we are talking to qualified men, not to first-year students—men who, it may be presumed, have been taught to know the actual position of these vessels and their relation to the spinal column beneath—and then he makes what to me is a most astounding statement.) "It is most likely to prove useful in sudden and severe hæmorrhage, and if *it only control the loss for a few moments* it gives us time to apply other methods of treatment. As a *temporary* expedient, therefore, it should be borne in mind. It has the great advantage of supplementing, without superseding, other and *more radical* plans of treatment. If a battery is at hand the Faradaic current may be used, and is, *it is said*, a very powerful agent in inducing uterine contraction. When the hæmorrhage has been excessive and there is profound exhaustion firm bandaging of the extremities, by preference with Esmarch's elastic bandages, *if they can be obtained*, may be advantageously adopted, with the view of retaining the blood as much as possible in the trunk, and thus lessening the tendency to syncope. As a temporary expedient in the worst class of cases *it may occasionally prove of service. Supposing these means fail*, and the uterus obstinately refuse to contract after all our efforts—and, do what we will, cases of this kind will occur—*the only other agent at our command* is the application of a powerful styptic to the bleeding surface to produce thrombosis in the vessels. ...... As it is not proposed by anyone that this means of treatment should be employed until all ordinary methods of evoking contraction have *failed*, and as in cases of this kind the lives of the patients are of necessity imperilled, we should be fully justified in adopting it, even if its possibly injurious effects had been much more certainly proved. ...... Other local astringents may be eventually found to be of use. Tincture of matico possibly might be serviceable. ...... The styptic properties of creoline have already been mentioned. Dupierris has advocated tincture of iodine. Penrose strongly recommends common vinegar and gives directions how to apply it by means of a handkerchief soaked and introduced into the uterus." The italics are mine.

Now, if you refer to the other authors whom I have mentioned you will find that whilst they all agree as to the paramount necessity of evoking contraction they differ as to the value which they place on one or the other of these "remedies." Thus, Galabin[3] says that "there are three serious risks in the injection of perchloride of iron. First, a coagulum may be carried from a uterine sinus and cause pulmonary embolism. Sudden death from this cause has occasionally followed the injection. Secondly, the solution may pass along the Fallopian tubes and set up peritonitis. Thirdly, the clots formed by the iron solution in the uterus, as well as the thrombi in the vessels, are apt to decompose and set up septicæmia." Dakin[4] adds "that the very tough clot formed in the uterus is tenacious and difficult to expel, and it will not improbably putrefy and cause septic trouble." One author strongly advises against the use of ice inside the uterus, inasmuch as ice is often impure and may contain the micro-organisms of tetanus, whilst Playfair himself, as you will have remarked, says that "the use of cold, unless immediately successful, will certainly prove injurious."

I wish you especially to note the frequent repetition of the word "fail"—"if these measures fail, try," &c. Dakin apparently feels so sure that the earlier measures *will* fail that he says "the various manœuvres must succeed one another rapidly, and the preparations necessary for those to follow must be made while any one method is being employed." Am I not justified in saying that the whole tone of their advice is tentative and suggestive of mere experiment? One seems to hear them say, "Try this, that, and the other, but understand that neither I nor anyone else can answer for their efficiency and don't blame *me* if your patient dies."

But ask yourselves, "Of what did this patient die?" Did she die of an uncontracted uterus? Is there such a cause of death at all? No; she died of hæmorrhage. She bled to death just as much as if her carotid and jugular veins had been cut and you had no effective means of stopping the flow of blood from them. Now all writers on this subject subconsciously assume or directly assert that the *only* effective way possible to check hæmorrhage in this situation is by obtaining contraction of the uterus, or failing that by producing firm clots in the open mouths of the vessels concerned. But is that true? Have we no other means? and *how if the uterus cannot contract?* How if we are striving after an end which is unattainable from the first, and from the very essential conditions of the thing becomes more and more impossible with every ounce of blood lost? May not the reason of the whole lamentable business lie here? Writers talk of atony of the uterus, inertia of the uterus, but they talk as if the uterus were a sulky child, able to do what we ask of it if it only would, and only to be coerced by strong measures into doing it; and when we fail, as I will try to show you we are bound *ab initio* to fail, there is a feeling such as a parent has with a naughty child whose obstinacy has withstood a sound whipping and who still sulkily persists in refusing to do what we wish. What else in actual fact have we been doing to the uterus but whip it? Books call it stimulating the uterus to contract. In plain English, it is mere whipping, mechanical, by kneading, flicking with wet towels, forcible compression between one hand inside and one out, between both hands outside, between the hand outside and packing within, or chemical, by ergot and strychnine, any or all of the many ways in which you are counselled to whip this lazy obstinate uterus. It is all, when reduced to simple terms, mere whipping.

We are proceeding upon an implied premiss, which is that the uterus *can* contract if it will; but *can* it? The uterus is a muscle, and, like all muscles, after it has done a certain amount of work there comes a point when it can do no more effectively. Under pressure of will, of external or internal stimulus, it may do a little more, but it will be feeble, ineffectual, spasmodic. Some fibres may not be so exhausted as the rest, and the muscle will then contract irregularly. In the case of the uterus you may then get a temporary hour-glass contraction, a condition by no means to be desired. Every cyclist knows that if when the muscles have reached this stage further work is asked from them cramp follows, and that whilst, if rest is allowed to the tired muscle, it soon recovers its powers, with every additional struggle after it has reached this point, a longer and longer time must elapse before it is again capable of proper use.

Muscles differ not only in different people but in the same person at different times. What we are able to do with our muscles easily and with comfort one year we may find a difficulty in doing another year. And the uterus, being a muscle, shares in this unequal ability. That it has been equal two years ago to do the work of a confinement and have plenty of reserve force afterwards is no proof that there will be any reserve force at all this year, after the contractions necessary to expel child and placenta have taken place. That Mrs. Jones's uterus contracted firmly after a difficult confinement is no reason why we should expect Mrs. Smith's to do so after a comparatively simple and easy time. In every uterus at any given time there is a certain amount of force peculiar to itself alone, and when that is expended you have reached the physiological point of fatigue for that uterus at that time. Before any tired muscle can fulfil its function again properly it must have rest and a reasonable amount of blood circulating in it. But we have been giving this muscle no rest at all, and its blood has been steadily draining away from the first. Can you wonder that we have not succeeded?

Of course, the answer to this according to the present teaching would be, "But we cannot afford to give it rest, because our *only* means of stopping the loss of blood lies in its completing the task required of it, however unfit it may be to accomplish it. No other way is open to us except a measure—that of injection of iron—which may produce sudden death," and the whole gist of the matter lies in the question, "Is this true or not?" One of the most marvellous things to me is that knowledge obtained in one branch of our art is so often absolutely ignored by the teachers of another. Nowhere perhaps is this more flagrantly evident than in this same question of the treatment of post-partum hæmorrhage. Because the blood in this case comes from the interior of a hollow muscle at the end of a normal physiological act, it *ipso facto* apparently ceases to be governed by the laws which are admitted to govern bleeding in all other regions and at all other times, and requires to be dealt with by measures peculiar to itself; measures in which, however, the teachers who recommend them have so little faith that they are never tired of reiterating after each one, "Try this, and if it fails try the next on the list." But is this, of all others, the time for experiments? That these things fail is admitted by the very terms in which their advocates recommend them; that they were bound to fail I think I have shown you. If ever we need a remedy which will not fail we need it here; under such circumstances, if ever experiments are inadmissible it is here and now. But such practice can only be described as at best a series of experiments.

---

[3] Manual of Midwifery, third edition, p. 748.

[4] Handbook of Midwifery, 1897, p. 483.

There is, at the outset, a tendency to confusion in the statement of causation. Every writer almost appears to consider it his duty to pile up a list of possible causes for this bleeding, and these causes are all given pretty much as if they were of equal importance. Most of these so-called causes are not immediate causes at all, but only contributory—such, for instance, as residence in relaxing climates, sedentary habits of life, &c., though they are placed in the same list and as being of apparently the same importance as the rest. Some are extremely rare, as hæmophilia; one, I believe, does not exist—disease of the ganglion cervicale uteri, gravely put forward by one writer. Every man seems to consider it his duty to add one more shovelful to the heap of dust, the clouds arising from which tend to obfuscate the unlucky practitioner's mental vision. And the mention of hæmophilia in this connexion is, though perhaps unavoidable, yet still very objectionable. The very idea of it takes all heart out of the medical attendant, who needs, *au contraire*, to brace himself with the firmest conviction that the hæmorrhage is perfectly under his control and can be infallibly stopped by his efforts. Forget it; wipe it out of your memory altogether. It is the rarest condition possible. Both it and the ganglion idea have served their purpose in filling up death certificates, but they have but little other use. All the other causes are divisible into two plain categories—first, those due to your own conduct of the case; and secondly, those favouring the early appearance of the physiological point of fatigue—producing, in fact, a tired muscle.

Of those causes due to your own conduct it is scarcely necessary to do more than notice them briefly. Though they are not likely to occur in your own practice you may be called in to rectify them in that of others, and therefore I mention them. You will see later that they also can best be dealt with by the plan which I am going to indicate They are: torn cervix, torn vagina, inversion of the uterus, tearing off of the cord, the placenta being partially separated, too rapid and unskilful use of forceps, &c.

There remains, then, but one class, which embraces ninety-nine hundredths of the cases met with—those in which the uterine muscle is tired out at the close of the second stage of labour. The causes included in this class, always given as separate and distinct causes, producing their effects in different ways, but which you can see all agree in producing hæmorrhage only in one way—viz., by hastening the occurrence of fatigue in the muscle—are: the presence of fibroids in the wall, over-distension from hydramnios, development of twins or more children, previous habits of life tending to relaxation of the general muscular fibre, and life in hot climates producing the same result; whilst tedious or prolonged labour simply uses up the normal reserve force usually left after the completion of the second stage, and the point of fatigue so far as the stages are concerned is then reached early. For this class nothing but rest is in the least capable of doing any good How are we to obtain it? and how are we to prevent our patient from bleeding to death whilst such rest is procured? Simply by applying in this situation the accepted rules of surgery in all other situations. Someone once said that surgical writs should run in the sacred cavity of the abdomen as well as in all other regions of the body, and only the remnants of our late superstitious fear of the peritoneum prevent us from a ready assent to this. A similar conservative spirit appears to pervade all that is written on the subject of post-partum hæmorrhage, and the uterus is treated as an organ apart, obeying only its own laws, laws absolutely opposite, apparently, in character, to those which we recognise as true in other regions.

What do we all do, almost instinctively, when confronted with hæmorrhage in any other part of the body? Our minds automatically reflect that all bleeding comes from vessels, vessels of two kinds, arteries and veins, *and can come from no other source*; that of these vessels, arteries come from a parent trunk, the closure of which prevents any loss from smaller branches, however numerous they may be; that veins in the same way converge to one parent trunk; and that if the point at which leakage from them is occurring be elevated above the heart blood will no longer escape from them. If a varicose vein or veins should burst in the leg, is not the first advice given in "first-aid" to elevate the limb? not that it may be as high or a little higher than the patient's head, but well above the level of his heart; and do we not know that the bleeding will at once cease? But such elevation must be decisive and purposeful, not the mere lifting of the bed foot to check syncope, such as described by Playfair. The uterus itself must be raised until it is higher than the heart, and that means of course that the foot of the bed must be lifted much higher. The best thing, I believe, because the quickest, is to run a table underneath and to allow the foot of the bedstead to rest upon this; by such means you at once place the patient at an angle of 45° or 50° with the ground, but a chair with footstools or books piled upon its seat will do. The great thing is to take the readiest and quickest means of practically placing the patient in the Trendelenburg position. Elevation of the legs has another advantage, that it favours the return of blood from the lower extremities and so takes the place of another and favourite manœuvre of those who have separate plans for all these indications and do not grasp and attack from the point of view of the main principles involved—that of bandaging the legs upwards. Such bandaging takes time and after all only effects the one thing, the emptying of the vessels of the lower extremities.

Having controlled the venous loss we have the arterial to consider. The fact that blood is coming from 50 or 100 open tubes is of no importance if these tubes are all fed from one trunk If we can control the trunk we close them all. But do they all come from one source? In a way they do, because they are all supplied from the aorta; practically they do not, because about one-sixth comes through the ovarian arteries, which arise from the aorta at a relatively high point above that at which we can apply pressure. Fredet, indeed, says that in the normal unimpregnated uterus the ovarian arteries do not supply the uterus at all, all the blood going to this organ coming from the uterines, that there is a complete break up of the ovarians into capillaries before they anastomose with the capillaries belonging to the uterines. I believe that, even if this is true, it is not always the case, and moreover that during the general development of the blood-supply attendant upon pregnancy the connexion between the two systems becomes much fuller and more direct, but even then you will see how much less relatively of blood is obtained from the former source. Five-sixths at least come through the uterine arteries which, coming from branches at the very end of the aorta, are controllable by pressure at any point along its trunk The objection raised to pressure upon the lower part of the aorta, the plan which I recommend, is that thereby you do not absolutely shut off all blood supply, but only five-sixths or so. But further consideration will show that this is no objection at all, that, on the contrary, it is a very great advantage. What is it that we wish to do? We wish to prevent the patient from bleeding to death whilst the uterine fibres obtain their absolutely needed rest During that rest, if it is to be of any value, if it is to yield us the desired result of fresh effective contraction, those fibres must have a certain amount of healthy blood circulating amongst them If we could absolutely prevent any blood from reaching them they could not recover. At the end of the time, however long it might be, the uterine fibres, the natural ligatures of the open vessels, would be as powerless to contract and to tie these vessels as when we began. Probably, indeed, they would be in a far worse condition, because they would be practically dying or dead. What we want is rest and recuperation, not necrosis. It would seem, indeed, as though the construction of the arterial supply to the uterus had been specially designed for our assistance in cases of this kind—that Nature herself has pointed out the way for treatment. "Block," she seems to say, "the main current of blood through the more direct route, that of the uterine vessels. Your patient cannot then lose any dangerous amount of blood. Meanwhile I, through the longer and more devious channel of the ovarians, will keep up a sufficient supply of blood, coming with no great force and in no great quantity, to preserve the vitality of the organ, assisting in the formation of small plugs in the open arterial mouths, vivifying and strengthening the muscular tone, which temporarily is at too low an ebb, so that when once more the full force of the blood-current is allowed to bear upon them the vessels shall be found closed by clot and constricted by the now firmly contracting fibres around "

How is all this to be brought about? Very simply indeed. The closed fist is applied with its ulnar surface resting upon the aorta as it lies over the left side of the vertebral column, and just sufficient pressure is exerted obliquely backwards and towards the right so as to enable it to compress that vessel against the unyielding surface beneath. At any point accessible over the course of the abdominal aorta this compression can be exerted and there is always a sufficient extent to enable us to vary the site of impact. The prolonged tension of the abdominal walls which was inevitable during the preceding pregnancy has rendered them so lax and unresisting now that the uterus is empty, that the vessel is readily found and as readily controlled. At first, if the patient has lost much, the sensation of pulsation against your hand is very faint, but it is astonishing how quickly this becomes more and more distinct until within a very short time the blood, now virtually imprisoned in the upper half—the only important part—of the body, raps vigorously at the closed door. Whilst this compression is kept up it is an easy matter to clear the uterus of clots, portions of placenta, membranes, &c., so that when the uterus begins again to contract its newly-regained strength may find no needless work to do in ejecting them. Any tear in the genital canal can be explored and reunited, and all with perfect ease to the practitioner and safety to the patient since the area of operation is no longer obscured by floods of blood.

If you look back you will remember that we noticed that firm traction upon the uterus checked the bleeding, and that whilst this traction was kept up we were able to plug the uterus, but that as soon as the os was allowed to re-ascend, or at all events within a few minutes, it became obvious that once more bleeding had recurred. Why did this happen? and what light does it throw upon the proposed method of treatment? As we all know, the uterine arteries make an acute angle in their course when they reach the uterus on either side. This angle in the normal condition is so curved as not to obstruct at all the flow of blood in the vessel at this point. A little increase in the acuteness of the angle, however, such as is produced by firm traction on the uterus, effectually kinks and closes these vessels, and you have practically the same effect, so far as the blood-supply is concerned, as you obtain by pressure on the aorta below the origin of the ovarian arteries—a shut-off of the supply of blood through the uterine arteries. This proves two things: first, that the main supply, the only dangerous supply, the supply which permits of such a loss as may be called flooding, comes through the uterine arteries; and, secondly, that if these are closed by any means the flooding ceases. You may say, Why not, then, keep up this traction alone? Well, in the first place, prolonged traction upon the os means wounding the os, possibly tearing out, and in any case the presence of a foreign body in the vagina and therefore increased risk of sepsis. Why should we run these risks when we have as certain, as scientific, and infinitely more easy a method in external aortic compression? Landau's method of vaginal hysterectomy, which consists in splitting and removal of the uterus without previous ligation of its vessels, is based upon this fact. From the first incision to the last firm traction is maintained upon the uterus, and this organ can then be divided from top to bottom without the loss of a teaspoonful of blood.

I scarcely care to say anything about compression of the aorta by the hand inside the uterus. To some minds it would appear as though a simple and easy method must be objected to because it *is* simple and easy and appeals to common sense—that for it something else more difficult, more dirty, and infinitely more dangerous must be substituted, although the result aimed at and obtained is precisely the same. It may be that the dirty method has the advantage of having been recommended by some foreign authority, and that to them is all sufficient. I do not waste your time in discussing it further. As to the length of time during which this compression should be kept up, a surgeon compressing the main artery of a limb keeps up his pressure until all the vessels arising from that main artery which had been bleeding are tied. In this case our ligatures are the revived fibres of the uterine wall, and we must wait until these fibres begin again to contract. It will be found in practice that this pretty much coincides with the firm, strong impact of the blood-current against the compressing hand; when the force of this has well revived, so also will the muscular force of the uterus be found rejuvenated; but the other hand of the surgeon can easily judge from time to time of its occurrence, no longer pounding and kneading its fibres in a hopeless struggle to *make* it contract, but gently touching it from time to time in order to gauge its condition and its tendency to contract of its *own free will*. It is then that the compressing hand is very slowly and gradually lifted, not permitting the full force of the aortic current to drive against the clots already formed by the blood from the ovarian arteries all at once, but gradually more and more, as they prove their capacity for secure hæmostasis. When once this is the case the hand may be removed, and the contraction now established, being a natural one, will be found to be also, and, therefore, a trustworthy one. For four or five minutes the parts should be watched. It is, of course, possible that one may have removed the controlling pressure a little too soon. The force of the aortic current may have driven out some of the newly formed plugs and some hæmorrhage may recur. If, however, you have fully understood the plan upon which you are proceeding you will feel able to consider this of but little importance. You will simply replace your pressure for a short time longer, knowing that you have now to deal with a reviving, not an exhausted, uterus; that some of the plugs still remain and are moment by moment becoming firmer, harder, better gripped by the recuperating fibres around; that the open mouths of the vessels from which these plugs have been dislodged are being moment by moment decreased in calibre; that the fresh clots which are again forming there do not require therefore to be so large as before. In a while you remove your hand again with increased caution and greater slowness and deliberation to find that now all is secure. There is all the difference in the world between being consciously on the up-grade and being steadily on the down-grade. You will leave the bed in its inverted position for 24 or 48 hours; not now so much to check venous bleeding as to favour the concentration of the amount of blood remaining in the patient, which must necessarily for a while be less than normal in and around the vital centres.

Now, this and this alone is, I conceive, the one and only primary duty of the medical attendant in these cases. All other things are subsidiary and must never interfere with or lessen in effectiveness this proceeding. If one hand is tired the other can be substituted, the second being well in place and effective before the pressure on the other is lessened and removed. If both hands are tired it is easy to teach the nurse to replace your own by hers; incidentally it may be pointed out that it would be practically impossible to teach her to replace yours if it were inside the uterus, whilst even if it were such pressure could not be continuous, which is essential to success. During the time that the nurse or your medical friend keeps up the control you can, if you choose, transfuse with or inject per rectum saline solution—a perfectly useless measure so long as leakage is persistently going on; you can clear out clots, pieces of placenta, membrane, &c.; you can mend tears, sew up a split perineum, do anything advisable in perfect safety and with perfect ease, since the area in which you are working is clear of blood, and the patient is quiescent, her cerebral centres being well supplied.

I fear that you may consider all this as somewhat didactically expressed. At the same time, you will see that the main reason for my bringing forward this subject is that teachers of obstetrics have always spoken tentatively and hesitatingly with reference to it; that they hold no doctrine strongly; and that therefore, in direct consequence of this hesitancy, their disciples find themselves, when called upon to act, in a pitiable state of uncertainty. If I had had nothing clearer and more definite to offer you I should but have wasted your time and my own. Holding these opinions as I do with absolute certainty, because based upon anatomical and physiological facts supported by repeated experience of the results of the treatment which I have sketched out, I should but leave your minds in the same condition of doubt which should here be impossible had I not spoken as forcibly and clearly as I was able.

Manchester.

THE SANITARY INSPECTORS' EXAMINATION BOARD.—The next examination for certificates of qualification for appointment of sanitary inspector or inspector of nuisances, under Section 108 (2) (*d*) of the Public Health (London) Act, 1891, will be held in London on Tuesday, May 7th, and the four following days. Particulars will be forwarded on application to the honorary secretary, Mr. W. R. E. Coles, 1, Adelaide-buildings, London Bridge, London, E.C.

REMARKS ON ENLARGEMENT OF THE INGUINAL GLANDS CHIEFLY IN CONNEXION WITH THE DIAGNOSIS OF PRIMARY SYPHILIS.

BY ARTHUR COOPER, M.R.C.S. ENG., L.R.C.P. LOND.,
SURGEON TO THE WESTMINSTER GENERAL DISPENSARY.

IT is well known that evidence based on the condition of the inguinal glands frequently forms an important factor in the diagnosis of affections of the genito-urinary organs, but the correct interpretation of evidence thus obtained is by no means always an easy matter. The main purpose of what follows is to draw attention to the fact that in many cases, and notably in the case of primary syphilis, the diagnostic value of inguinal glandular enlargement depends more on the circumstances of the particular case than on what may chance to be discovered in the groins at any particular time.

Now, in the examination of any case in which there is a lesion within the area drained by lymphatics which go to the inguinal glands, the first thing is to be careful not to assume without due inquiry that any glandular enlargement which may be present at the same time is the direct consequence of that lesion. Another important point to bear in mind is that different persons vary greatly as regards susceptibility to glandular enlargement. Tuberculous subjects seem to be most liable to have the lymphatic glands affected on slight provocation, but many others, apparently not tuberculous either in person or history, also have easily vulnerable glands. This difference in susceptibility is well shown by those cases, so common among the lower classes, in which one child with an unhealthy throat or a dirty head, and sometimes without any discoverable local cause, will have more or less enlargement of the cervical or occipital glands, whilst another child in apparently similar circumstances may have no perceptible enlargement of the glands at all. The same observation also applies, though this is not so generally recognised, to the inguinal glands, and it is a fact that many men and boys[1] who make no complaint whatever have enlargement of these glands to an extent which, although in itself of little moment, may yet in certain circumstances become of considerable importance, as will be seen by-and-by. In some of these cases, no doubt, there has been acute adenitis in connexion with some previous morbid process, but in many others—which are more likely to cause difficulty in diagnosis later—the patient is unaware of the presence of enlarged glands, or if he knows it is either unable to throw any light on the subject or mentions some such cause as a strain in jumping, or running, or riding on horse or cycle. In some cases, perhaps, no other cause can be detected by the surgeon either, but in most of them, I think, either with or without a history of strain, some form of mild but long-continued irritation is present, and this is most frequently balano-posthitis, not necessarily enough to cause discomfort, but merely such a condition as may be due to a prepuce not always very long or very tight, but worn habitually forward and insufficiently cleansed. Chronic glandular enlargement of this kind is usually slight both in degree and in the number of glands affected—sometimes only one in one groin, sometimes one in each groin, some- [illegible] in the other, rarely more than [illegible] the glands are, as a rule, [illegible] But whatever may be the cause the important point is that a man who is apparently healthy and without any history of venereal or other disease to account for it may, knowingly or not, have a degree of indolent enlargement of the inguinal glands which of itself is indistinguishable clinically from that which is found in some cases of primary syphilis. And here it may be remarked that too much is sometimes expected in the way of glandular enlargement as well as of induration of the primary lesion in syphilis. In many cases, no doubt, both are so well marked that the diagnosis is easy enough. But in syphilis, as in other diseases, a large number of cases are not typical according to the text-book description, and thus are more or less liable to be overlooked or mistaken, and yet if due attention be paid to details which are sometimes considered too trivial for notice most of them ought to be diagnosed with as much certainty as the so-called typical examples.

Before going further it will be convenient to describe *briefly the characteristics of the adenopathy of primary* syphilis. When no complication is present and when the groins were clear previously the glands first become palpable at some period during the fortnight following the appearance of the primary lesion. The exact time varies in different cases, but it seems to be most commonly about 10 days. The enlargement is gradual and progressive—that is to say, one gland enlarges first and is soon followed by others, but the first usually attains a larger size than those which follow. The enlargement goes on slowly until a group of glands, the number of which varies in different cases, can be plainly *felt* and sometimes *seen in both groins.* The glands then seem to remain stationary for a time and they afterwards slowly diminish and finally disappear in the same gradual manner. In typical cases, and when the enlargement has reached its height, a group of glands from three to six or even more in number can be felt in each groin. But besides being multiple the glands are also indolent and separate—that is, they are not tender when handled and each can be clearly defined and separated from the others by palpation. They are also freely moveable beneath the skin, are of moderate size, and are more or less hard. Hardness, however, is a variable quality in syphilitic as in other affections of the glands, and the same remark applies also to the shape of the glands, though one sometimes hears of "*amygdaloid*" *or* "*bullety*" *glands, as if such* terms had special significance. Both groins are usually affected, though the number of glands in each often varies considerably; but sometimes all the glands are in one groin and that not always on the same side as the primary lesion.

When all the features mentioned above are present and when those of the primary lesion correspond the diagnosis is easy. But the cases with which we are now chiefly concerned are those which are atypical and in which the diagnosis is sometimes difficult. The glands, for example, may be few in number and insignificant in size, the state of the groins, in fact, being merely such as has already been described to be not uncommon without syphilis. If, then, a patient comes for advice with enlarged glands accompanied by some form of lesion of the genital region the first question we have to decide is whether the enlarged glands are due to that lesion or not. And if we know nothing about the previous condition of the groins this point cannot be decided at once by the glands themselves, though taken in conjunction with the primary lesion and the *history we may be able* to arrive at a correct diagnosis. When we are unable to do this at the first visit the exact state, both of the primary lesion and of the groins, must be noted down for future reference, and if the examination be repeated at sufficiently frequent intervals and the peculiarities and course of syphilitic adenopathy be borne in mind we shall rarely fail to determine the nature of the case in a short time. But if in such a case we happen to know what the condition of the groins was beforehand we shall obviously be in a much better position for making an immediate diagnosis. It is an excellent rule, *therefore, to make a practice of taking note* of the groins as a matter of routine in patients whom we may have to examine for any reason, and all the better if this knowledge be acquired before there has been any risk of contagion, for such a knowledge of what may be called inguinal "geography" may make all the difference between a prompt and a tardy diagnosis should any venereal or other disease show itself later. To illustrate this let us suppose that a man whom we know to have had clear groins previously exposes himself to the risk of contagion and after an interval comes to us with some form of primary lesion which has not [illegible] gland a little large[illegible] or on the opposite side, even by that time the evidence of syphilis will be considerable, provided, of course, that the character of the primary lesion, and perhaps the history also, are not altogether opposed to this view. On the other hand, a similar degree of glandular enlargement of unknown origin [illegible] is doubtful [illegible] for the time being, [illegible] been [illegible] far [illegible] as the glands are concerned [illegible] have to wait and to watch, but in the last we start with the advantage of knowing that two glands, at any rate, are not syphilitic.

---

[1] I am not sure how far these remarks would apply to women.

The exact duration of primary syphilitic adenopathy is a difficult question, for it must be remembered that, after the secondary stage has been reached the inguinal may share with other glands in a more generalised adenopathy which is independent of the position of the primary lesion and therefore beyond the scope of the present remarks. It will be sufficient to say here that the duration of the primary adenopathy probably varies within certain limits according to the particular case, partly owing to the effects of treatment and partly to the presence or absence of complications, but that the whole course is usually comprised within a period of a few months. For our present purpose the gradual and progressive character of the change is the most important point, and it must also be remembered that the enlargement is only a temporary one, wherein it differs from the simple form before mentioned which may remain apparently unaltered for many months or even years and sometimes perhaps permanently.

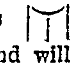
Among the various causes of atypical adenopathy it is perhaps hardly necessary to mention the previous removal of some of the glands by operation or their destruction by some morbid process. In such patients if syphilis be afterwards contracted the extent of glandular change will depend on what has happened beforehand in each case, but the presence of scars in the groins will usually be sufficient to prevent mistakes in diagnosis.

Besides the numerous cases in which the primary adenopathy is slight or otherwise atypical there are rare instances in which no glands can be felt. In most of the cases of this kind that I have seen the patient has been either very fat or in the habit of wearing a truss, the pressure of which seems occasionally to prevent enlargement of the glands. Cases have also been recorded of absence of enlarged glands in connexion with a phagedenic primary sore.

Although primary syphilis of itself probably never causes acute inflammation and still less suppuration of glands, yet as complications both occur not infrequently, especially among the lower classes.[2] For we may have a mixed infection of the glands just as we have in the case of the sore, and if the sore inflames and suppurates the glands may follow suit, and thus the distinguishing characteristics of both may be temporarily obscured. Periadenitis may be slight and sub-acute and merely sufficient to mask the outline of the syphilitic glands, or it may go on until they are all glued together into a large irregular mass known as a "conglomerate bubo" which may or may not suppurate according to circumstances. When the glands are affected early, as in the case of the local chancre, for example, a sharp look-out must be kept on both sore and glands, so that the changes peculiar to syphilis may not be overlooked when the incubation period has elapsed.

But in addition to these accidental complications there are others which are avoidable and which, therefore, ought not to occur. I refer to those due to the application of irritants[3]—especially nitrate of silver—to venereal sores and iodine preparations to the groins. This has been a fruitful source of diagnostic error in the past and to a certain extent probably is so still.

Although multiple indolent glands form one of the most important features of primary syphilis, it must be remembered that they are not in themselves proof of it, and that an apparently typical condition of the groins is sometimes due to other causes, more especially in persons whose glands are unusually susceptible. Among such cases may be mentioned severe gonorrhœa, urethral irritation from too strong injections or other injury, irregular herpes, severe balano-posthitis, and tuberculosis. The diagnosis will depend on the history, on the absence of an indurated primary lesion, and on careful watching throughout the incubation period of syphilis.

It may not be out of place, perhaps, to say a word about examining the groins, for if the examination be made carelessly but little real information will be gained. Digging the fingers into the groins of a sensitive patient in the upright position is quite unlikely to lead to any useful result. In all doubtful cases, therefore, and, indeed, whenever accuracy is desired, the patient should be lying down. In many cases when he is standing up muscular contraction prevents a complete examination and, moreover, what may appear to be an indefinite thickening in the groin in the standing position can often be resolved into several glands in the supine position. With the patient lying down, then, with the muscles relaxed and with the inguinal regions fully uncovered, each groin should be gently and deliberately gone over with the fingers of one hand, and as each gland is found a finger tip of the other hand is placed on it and kept there until the whole groin has been examined. The number, position, form, and size of the glands are then noted down at once for future reference, and for this purpose I have found a rough and simple diagram like this  of great assistance. A series of figures of this kind will often convey more information about the state of the groins than many lines of writing.

It must be familiar to everyone that whenever the subject of visceral or other late form of syphilis is discussed by physicians there is general agreement respecting the frequent absence of any clear history or other evidence of the earlier signs of the disease. Indeed, it seems to have been chiefly this circumstance that led an eminent physician to suggest not long ago that what is generally known as the local or soft chancre may be responsible for some of the nervous maladies now attributed to syphilis. But whether this suggestion be or be not substantiated by future observation it would not do any harm in the meantime to those of us who are more accustomed to see and to treat primary syphilis if we were to look upon this frequent absence of early history as a hint that perhaps we are not always sufficiently careful in our diagnosis. There can be no doubt that for some reason or other a considerable number of cases of syphilis are overlooked or mistaken—and consequently untreated—in the earlier stages. In the great majority, of course, the fault is that of the patient himself who is either too unobservant to notice the early signs or too careless to seek medical advice if he does notice them, and in many others, though he may take advice at first, he neglects to follow it and to present himself for examination during a sufficient length of time. But there still remain a certain number of cases to be otherwise accounted for, and I venture to think that these might be diminished by careful attention to matters of detail which, as I have before remarked, are sometimes considered too trivial for notice.

The diagnosis of primary syphilis, it should never be forgotten, is based not on any one sign but on three things: (1) the history; (2) the primary lesion; and (3) the state of the nearest gland or glands. The first of these, for which we have to trust the patient, is often unfortunately too vague to be of much use in diagnosis, though it is of real value in some cases and therefore should not be neglected. The other two can be observed by the surgeon himself and should always be closely watched for a sufficient length of time, having regard to the incubation period. If this were always done and if—which is quite as important—nothing were done by the patient or the practitioner to interfere with the diagnosis probably few cases of syphilis would escape detection during the primary stage.

In what has been written above I have tried to indicate some of the points in connexion with the last-mentioned though not least important of the three factors on which the diagnosis of primary syphilis depends.

Old Burlington-street, W.

THE MEDICAL GUILD.—The annual report and balance-sheet of the Medical Guild for 1900 states that the council of the Guild has held 14 meetings during the past year and many meetings of sub-committees have been held. The subjects dealt with included Reform of Provident Dispensaries, Club Practice, Hospital Reform, and Legislation for Midwives. A conference was held between the Guild and the Provident Dispensaries Medical Officers' Association, which it is hoped will be productive of good results. With regard to club practice the question of representatives of the Guild attending a meeting of the council of friendly societies in Manchester is being considered. A conference of medical societies organised by the Guild is to be held in Birmingham this year on the lines of that held last year in Manchester. The total number of members at the date of the report is given as 219 and the finances show a balance of close upon £50.

---

[2] Of 116 cases of primary syphilis treated by the late Mr. Berkeley Hill and myself at the Male Lock Hospital 10 had acute suppuration of the inguinal glands.

[3] See "Note on Certain Modes of Treatment which Interfere with the Diagnosis of Syphilis," THE LANCET, May 7th, 1892, p. 1025.

REMARKS ON THE HOLMGREN TEST.

BY F. W. EDRIDGE-GREEN, M.D. DURH., F.R.C.S. ENG.

THERE are few points in medical practice in which the change of opinion has been more complete than that with regard to the Holmgren test for colour-blindness. If there be at the present time any specialist who is in doubt about its efficiency I shall be only too pleased to give him an opportunity of examining a case which has passed the test even under the most rigid and careful examination. The reader will probably think that this being the case it is hardly necessary to again draw attention to its defects and the necessity of having a proper test. A few years ago the Royal Society appointed a committee to decide upon an efficient test for colour-blindness and the Board of Trade are now using the Holmgren test at the recommendation of that committee and thereby endangering the lives of thousands of persons. Few will credit, unless they have tried, how exceedingly difficult it is to convince men of a perfectly obvious and easily ascertained fact if this fact be in opposition to their preconceived notions. In all ages it has been so and probably always will be so, but there is no doubt that a very great advance will be made in knowledge when scientific men recognise this psychological source of error and cease to reject facts without considering them because they are so certain that the facts are wrong that they will not even take the trouble to confirm their convictions. It will be of untold advantage to knowledge when this obstacle is removed from the path of the earnest seeker after truth

It is not my object in this article to point out in what way this test is defective—this I have already done many times in the minutest detail[1]—but to give the opinions of others, including those who had previously opposed me most strongly I must, however, mention that the test is very inefficient; a great number of normally sighted persons are rejected and three divisions of the dangerously colour-blind nearly always escape detection by it. It may be a matter of surprise to those who know the facts of colour-blindness as they are to be found in the text-books that the test can possibly fail. The reason is that the majority of the so-called facts are erroneous The writers have put down the facts as they ought to be according to some theory of colour-vision, not as they really are.

The President of the Ophthalmological Society, Mr. Anderson Critchett, writes. "I do not regard the Holmgren test as a perfect one."

Mr. T. H. Bickerton writes as follows[2]: "To be perfectly candid, I was, up to a comparatively recent date, a firm believer in the all-sufficiency of the test. In fact, I informed the Royal Society Commission which investigated the seamen's eye-sight question that I was prepared to pin my faith to the Holmgren wool test. Some little of this confidence has, I need hardly say, been shaken by the discovery of the phenomena to which I have alluded." Mr. Bickerton also quotes Dr. Hubert Seager, Dr. G. Mackay, and Dr. Angus McGillivray.

Dr. Seager writes: "I do not remember to have yet seen any discussion on the peculiar form of colour-blindness to which I myself, and no doubt other people as well, are subject—inability to distinguish at night between a red and a green light at a distance exceeding half a mile, though I can pass any test for colour or long sight in the daytime and can distinguish coloured lamps perfectly at night within half a mile's distance. I tested this condition of my eyesight again last year when I was at sea for a week or two and found it unaltered Naturally such a state of colour-blindness might lead to very serious accidents at night and the Board of Trade tests should be adapted to such defects"

Dr. Mackay writes on the subject as follows: "It seems to be scarcely appreciated as it ought that there exist persons whose perception of colour appears to be correct in quality but is congenitally defective in quantity or intensity. The subjects of this affection can pass successfully such a test as Holmgren's applied in the orthodox way since they inspect the skeins at close quarters. They appear to see colours much or quite as the normal eye provided the stimulus of colour rays applied to their retina is sufficiently strong, but if it be weakened by dilution with white light or removal of the source of colour to a distance their defect is made manifest."

Dr. McGillivray remarks as follows: "Now a candidate may arrange the Holmgren tests with perfect accuracy and recognise and name promptly the colours used in signalling, yet, though possessing perfect distant vision, he may be quite unable to tell the difference between a red and a green signal at the distance of a few yards even in a clear atmosphere."

Dr. Karl Grossmann writes: "Not so long ago a case came under my notice where a red-green blind person, very well educated, acquitted himself perfectly well of the examinations (repeated ones) with Holmgren's wools but failed to recognise some of my glass letters and other tests. I am sorry to have to keep the gentleman's name to myself, as he strongly objects to having his defect known, but for those who perhaps think my experience in this instance too exceptional I need only refer to similar experiences published by Professor Pfluger of Berne. He found in a post-graduate course of ophthalmology which he was then giving to 16 army surgeons that there were two of them completely red green blind, as proved by his own and other tests, but when tried with Holmgren's wools they made not the slightest mistake. This may suffice to show that Holmgren's test is not sufficient for every case of colour blindness. Especially in the case of the educated we have to be extremely careful, and men who prepare for the command of a ship belong to this class."

Dr. Lindsay Johnson writes · "I consider your lantern test and neutral glasses as absolutely necessary to supplement the wools."

Mr. Judge Baldwin, Mr A St. Clair Buxton, and Professor H. Cohn have also pointed out the defects of Holmgren's test, and the two latter have given cases of colour-blindness which have escaped detection by the test.

Mr. E Nettleship examined one of my trichromic cases and very kindly allowed me to state when I showed the case subsequently at the Ophthalmological Society of the United Kingdom that the man had been examined and passed by him.

I have many more letters in confirmation of the above.

Incredible as it may seem, the report of the Committee of the Royal Society contains internal evidence that the Holmgren test is not satisfactory. The last page of the report gives a summary of the cases of colour-blindness detected at the examination of about 300 railway employés. There are two facts to be noticed—first, that five colour blind persons escaped detection by the wool test; and, secondly, that no colour-blind person escaped detection by all the lantern tests—that is to say, that though a colour-blind person was passed by one lantern test the same man was rejected by another examiner using another lantern test. The obvious conclusion is, therefore, that a lantern test could be constructed that would detect all cases.

I think that it will be admitted that I have made out a case for a fresh inquiry into the subject. What we want is a careful and unbiased inquiry. All facts should be carefully examined and should not be rejected without consideration because they do not fit in with a particular theory.

Hendon

---

[1] Colour Blindness and Colour Perception, International Scientific Series.

[2] Brit Med. Jour, March 17th, 1900, p. 621.

THE CHEMISTRY OF NERVE-DEGENERATION.[1]

BY F. W. MOTT, M.D., F.R.C.P. LOND., F.R.S.,
AND
W. D. HALLIBURTON, M.D., F.R.C.P. LOND, F.R.S.

WE have previously shown that in the disease general paralysis of the insane the marked degeneration that occurs in the brain is accompanied by the passing of the products of degeneration into the cerebro spinal fluid. Of these, nucleo-proteid and choline are those which can be most readily detected. Choline can also be found in the blood. We have continued our work and we find that this is not peculiar to the disease just mentioned, but that in various other degenerative nervous diseases (combined sclerosis, disseminated sclerosis, alcoholic neuritis, and beri-beri), choline can also be detected in the blood. The tests we have employed to detect choline are mainly two: (1) a chemical test—namely, the obtaining of the characteristic octahedral crystals of the platinum double salt from the alcoholic extract of the blood; and (2) a physiological test—namely, the lowering of blood-pressure (partly cardiac in origin and partly due to dilatation of peripheral vessels) which a saline solution of the residue of the alcoholic extract produces; this fall is abolished or even replaced by a rise of arterial pressure if the animal has been atropinised. It is possible that such tests may be of diagnostic value in the distinction between organic and so-called functional diseases of the nervous system. The chemical test can frequently be obtained with 10 cubic centimetres of blood.

---

[1] Abstract of a paper read before the Royal Society on March 14th, 1901

A similar condition was produced artificially in cats by a division of both sciatic nerves, and is most marked in those animals in which the degenerative process is at its height, as tested histologically by the Marchi reaction. A chemical analysis of the nerves themselves was also made. A series of 18 cats was taken, both sciatic nerves were divided, and the animals were subsequently killed at intervals varying from one to 106 days. The nerves remain practically normal as long as they remain irritable—that is, up to three days after the operation. They then show a progressive increase in the percentage of water and a progressive decrease in the percentage of phosphorus until degeneration is complete. When regeneration occurs the nerves return approximately to their previous chemical condition. The chemical explanation of the Marchi reaction appears to be the replacement of phosphorised by non-phosphorised fat. When the Marchi reaction disappears in the later stages of degeneration the non-phosphorised fat has been absorbed. This absorption occurs earlier in the peripheral nerves than in the central nervous system. This confirms previous observations by one of us (M.) in the spinal cord in which unilateral degeneration of the pyramidal tract by brain lesions produced an increase of water and a diminution of phosphorus in the degenerated side of the cord, which stained by the Marchi reaction.

The paper is illustrated by tracings of the effects on arterial pressure of the choline separated out from the blood of the cases of nervous disease mentioned and from the blood of the cats operated on. Tables are also given of the analyses of the nerves and drawings and photo-micrographs from histological specimens of the nerves. A summary giving the main results of the experiments on animals is shown in the following table:—

Days after section.	Cats' sciatic nerves.			Condition of blood.	Condition of nerves.
	Water.	Solids.	Percentage of phosphorus in solids.		
Normal	65·1	34·9	1·1	Minimal traces of choline present.	Nerves irritable and histologically healthy.
1–3 ...	64·5	35·5	0·9		
4–6 ...	69·3	30·7	0·9	Choline more abundant.	Irritability lost; degeneration beginning.
8 ...	68·2	31·8	0·5	Choline abundant.	Degeneration well shown by Marchi reaction.
10 ...	70·7	29·3	0·3		
13 ...	71·3	28·7	0·2		
26–27 ..	72·1	27·9	Traces.	Choline much less.	Marchi reaction still seen, but absorption of degenerated fat has set in.
29 ...	72·5	27·5	0·0		
44 ...	72·6	27·4	0·0	Choline almost disappeared.	Absorption of fat practically complete
100–106	66·2	33·8	0·9		Return of function; nerves regenerated

IN consequence of the death of Professor Manassein of St. Petersburg we regret to learn that the *Vrach*, the foremost medical weekly paper in Russia, which was founded by him, is likely to be discontinued, at all events after the close of the current year.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

◆

A CASE OF ERYTHEMA SCARLATINIFORME DESQUAMATIVUM.

BY C. KILLICK MILLARD, M.D., D.SC. EDIN.,

MEDICAL OFFICER OF HEALTH, BURTON-ON-TRENT.

As comparatively few cases of this disease have been recorded in this country, and as from a diagnostic point of view the affection is of importance on account of its resemblance to scarlet fever, the following case may be of interest. The case was under the care of Mr. E. C. Stack, F.R.C.S. Irel., by whose courtesy it was brought to my notice.

The patient, a man, aged 36 years, was attacked on Nov. 24th, 1900, with slight pyrexia and malaise accompanied by an intense universal scarlatiniform eruption. He was first seen by me on the 26th. The eruption was then beginning to fade. It consisted in a diffuse erythema affecting the skin everywhere, including the face, the palms of the hands, and the soles of the feet, and presenting an appearance closely resembling that of a severe case of scarlet fever. The tongue was slightly furred, but the fauces appeared to be unaffected. The pyrexia and malaise had now passed off. On the 27th, three days from the onset, desquamation set in, beginning on the upper part of the chest, and it rapidly involved the whole surface, the palms of the hands and the soles of the feet being affected last. The process developed just as in scarlet fever, but with more rapidity. It was very profuse, the epidermis in some parts coming away in sheets. It continued for about three weeks, the patient returning to work at the end of that time after making an uninterrupted recovery. An examination of the urine revealed nothing abnormal. The patient, who otherwise had enjoyed good health, had suffered from attacks similar to the above ever since he was a child. They usually recurred about once every 12 months, irrespectively of season. He once, however, had two attacks in three months. He had never been able to account for them in any way and was unaware of any cause, dietary or otherwise, tending to determine them. They came on quite without warning, the first noticeable symptom being a feeling of burning heat in the skin immediately followed by the appearance of the eruption. The latter usually appeared first about the genitals and rapidly invaded the whole surface of the body. It was not specially irritating. There were usually some headache and malaise at the onset, but they were not severe and soon passed off and the appetite was not affected. The constitutional disturbances, indeed, appeared to be very slight. Desquamation always began within two or three days, appearing first about the neck, the shoulders, or the face, and last upon the hands and feet. It was always profuse and on one occasion, several years ago, the nails were shed. The process was usually completed in about three weeks. During an attack he would remain at home, but never in bed. The attacks had more than once been diagnosed as scarlet fever until the full history was given and his appearance at out-patient departments was apt to cause a commotion. The patient had eight brothers and sisters, all healthy, but two cousins, he believed, suffered in a somewhat similar way but to a less extent.

The above appears to be a typical case of idiopathic erythema scarlatiniforme desquamativum. The disease is a rare one in this country, but is more common in France, and our knowledge of it is chiefly due to the French dermatologists Bercier and Brocq. Erythema scarlatiniforme desquamativum is a febrile non-infectious exanthematous affection. The tongue may be furred, but it is never a typical "strawberry" tongue, and the fauces are unaffected. Pyrexia is usually slight, but the temperature may occasionally reach 103° or 104° F. The eruption is generally universal and intense, and it closely resembles that of scarlet fever. Desquamation always sets in early, a point of some diagnostic importance, and is usually profuse, the hair and nails being sometimes shed [illegible] ed to regard the [illegible] The etiology is [illegible] and to depend upon predispos [illegible] to recur. Amongst the causes [illegible] septicæmia and pyæmia; (2) [illegible] and typhoid fever; (3) rheumatism, ague, chronic Bright's disease, (4) sewer gas poisoning (Crocker); and (5) drug manifestations The disease is to be distinguished from scarlet fever by the absence of throat symptoms, by the disproportion between the intensity of the eruption and the amount of pyrexia, by the absence of the "circum-oral ring," and by the early onset of desquamation. When there is a history of recurrent attacks, as in the present case, the diagnosis should be easy. The prognosis in idiopathic cases is favourable In other cases it will depend upon the associated cause The treatment must be on general principles, but is unsatisfactory Arsenic is to be avoided.

Burton-on Trent

NEUTRAL RED AS A MEANS OF DETECTING THE PRESENCE OF THE BACILLUS COLI COMMUNIS IN WATER SUPPLIES.

By William Hunter, M.B, C.M Aberd,

Assistant Bacteriologist to the London Hospital.

(From the Bacteriological Laboratory, London Hospital)

Quite recently I showed[1] that the use of neutral red as suggested by Rothberger afforded a reliable method of distinguishing the bacillus coli communis from the bacillus typhosus, and further, that it was possible to diagnose by means of this method with certainty the presence of the bacillus coli communis in the majority of fluids within from 12 to 24 hours At my suggestion Dr. Makgill has made some experiments with the object of finding whether this reaction affords a means of detecting the bacillus coli communis in water supplies and of estimating thereby the number of bacilli present. The following is a summary of the results obtained

Media containing neutral red form an extremely delicate test for the presence of the bacillus coli communis. This is most marked in the case of peptone bouillon in which the presence of one or two bacilli will produce a reaction within 24 hours if other micro-organisms are excluded. In water containing the ordinary varieties of aquatic micro organisms the reaction is delayed unless comparatively large numbers of the bacillus coli communis are present Thus, if a cubic centimetre of unsterilised tap water, containing from 10 to 20 bacilli coli per cubic centimetre, were mixed with the neutral red bouillon, a reaction would be present in 24 hours, but if the bacilli numbered only from three to four per cubic centimetre their presence might not be shown until the second day had been completed. By noting such differences in time as varying amounts of the water to be examined require, a fairly accurate idea of the proportions of the bacillus coli present can be gained By making shake cultures with one or two cubic centimetres of water in neutral red glucose agar, and incubating at 37° C for two or three days, the bacillus coli can be detected and can be readily isolated when present in extremely small numbers The reaction in broth has so far proved to be specific "In [illegible] under anaerobic conditions—the [illegible] maligni œdematis produce a [illegible] llus coli communis. Not- [illegible] the reaction in regard to [illegible] mmunis in water supplies [illegible] ntends to publish soon the results of his experiments more in detail.

London Hospital, E.

A NOTE ON THE CONCURRENCE OF MEASLES AND DIPHTHERIA

By J D Rawlings, M B Lond, &c,

Late House Physician, St Bartholomew's Hospital.

One or two cases of the somewhat unusual combination of measles and diphtheria having been recently published in The Lancet the notes of the following case which came into my hands in 1895 at St. Bartholomew's Hospital may interest some of your readers

The patient, a child, aged 13 months, was admitted into the hospital for laryngeal obstruction She was quite well till a week before, when she developed a cough This continued till the day of admission when it became croupy and the breathing was noisy. On the day before there were a little discharge from the nose and redness of the eyes There was no history of exposure to the infection of diphtheria Two children in the house where the patient lived had had measles a fortnight before The patient never had measles or any other illness On admission the child was not very ill and was not cyanosed The breathing was stridulous, but the signs of laryngeal obstruction were not very great—indeed, tracheotomy never became necessary. The respirations were 40 There was slight inspiratory recession of the lower costal cartilages and epigastrium; the sterno-mastoids and scaleni were working The temperature was 102 8° F and the pulse was 160, of smaller volume during inspiration than during expiration There was no rash. General dry bronchitis existed, but there were no signs of pneumonia There was nothing abnormal in the fauces and there was little or no enlargement of the glands at the angles of the jaw. The urine showed a thick cloud of albumin. There was very slight injection of the conjunctivæ The diagnosis was important as I had to decide at once whether to admit the child to the diphtheria ward or not I decided to do so On the next morning the child had a measles rash, and the pathologist reported that diphtheria bacilli had grown from the swab The little patient died three days after admission Post mortem, flakes of diphtheritic membrane were found in the larynx and trachea and there was extensive broncho-pneumonia in both lungs

The case is interesting chiefly from the point of view of diagnosis The recognition of the diphtheria was due to the quantity of albumin in the urine and to the fact that the signs of laryngeal obstruction, although not great, were more than are generally found in the catarrh of uncomplicated measles These mixed cases of measles and diphtheria in young children are almost always fatal, and I think Mr. W Wyllys is to be congratulated on the favourable result in the case which he has published[1]

Dorking

A Mirror

OF

HOSPITAL PRACTICE,

BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere et inter se comparare —Morgagni *De Sed. et Caus. Morb*, lib iv, Prooemium.

ST. MARY'S HOSPITAL.

A CASE OF SUBPHRENIC AND SPLENIC ABSCESS; OPERATION; RECOVERY

(Under the care of Dr. W. B Cheadle and Mr H Stansfield Collier)

The etiology of sub diaphragmatic abscesses is frequently very obscure, but it is fairly certain that in most of the cases the abscess is connected with a perforation of the stomach, duodenum, or some other portion of the bowel Dr Lee Dickinson in a paper read before the Pathological Society in 1895[2] referred to a case of subphrenic abscess which resulted from a duodenal ulcer Occasionally it may follow an appendicitis, but the abscess then is generally on the left side of the body For the notes of the case we are indebted to Dr H J Van Praagh, house physician

A domestic servant, aged 19 years, was admitted into the Alexandra Ward of St Mary's Hospital on Oct. 20th, 1900, under the care of Dr Cheadle, suffering from pain in the chest and shortness of breath. The patient had been quite well on the 18th, but on the evening of that date, whilst stooping at her work she was suddenly seized with pain in the left side which gradually grew worse until she was compelled to take to her bed. On the following day she had pain between the shoulders, across the chest, and down the left side; she was feverish and perspired considerably; she did not vomit, nor did she complain of pain in the abdomen. At this time she was seen by a medical man who found that she was suffering from pleurisy and sent her to the hospital. The personal history showed that two years previously she had suffered from pain after food, with occasional vomiting, but no hæmatemesis. She had had no dyspeptic symptoms recently.

---

[1] The Lancet, March 2nd, 1901, p 613.

[1] The Lancet, Feb. 23rd, 1901, p. 549.

[2] The Lancet, April 6th, 1895, p. 574.

On admission the patient was dyspnœic and complained of pain in the left side, which was made worse by breathing deeply. The temperature was 102° F., the pulse was 144, and the respirations were 36. On examination there were signs of consolidation at the base of the left lung, accompanied by a considerable amount of pleurisy. There was also fluid in the left pleural cavity, the heart being displaced two finger-breadths to the right. On abdominal examination the stomach was found to be somewhat dilated; the edge of the spleen was not palpable. There was no evidence of peritonitis, nor was there anything in the physical signs to suggest the presence of a gastric ulcer. The patient had been for some time past the subject of constipation. The heart-sounds were normal and very frequent. The urine was normal.

For the first week in the hospital there was no improvement in the condition of the patient, the pulse-rate remaining high, ranging from 110 to 136, and the pyrexia increasing until on Oct. 27th it attained to 104°. The physical signs did not vary from those present at the time of the admission of the patient to the hospital, except that there seemed to be evidence of the presence of a greater quantity of fluid in the left pleural cavity. As she became much more dyspnœic paracentesis pleuræ (mid-axillary line, sixth space) was performed and 20 ounces of clear fluid were withdrawn. With the removal of the fluid the dyspnœa became less, the temperature chart showing a fall from 104° to 100°, but the physical examination of the left chest did not show any diminution in the extent of the dulness and the tubular breathing became much louder than before. The temperature now went up again, the patient's general condition becoming worse, the pyrexia being of a remittent character accompanied by profuse sweating. On Nov. 3rd, at 6 P.M. the temperature rose to 104 8° and the pulse to 150, although the signs of consolidation were becoming less marked. The patient's condition was so strongly suggestive of suppuration that an exploring needle was introduced into the position of greatest dulness, which was in the tenth space, in the posterior scapular line, and some fœtid pus was evacuated.

Mr. H. Stansfield Collier, who was called by Dr. Cheadle to see the case, decided on immediate operation. The patient was anæsthetised with chloroform and the pus having been once more located by means of an exploratory needle an incision was made along the lower border of the eighth rib and a portion of the ninth rib was resected, when on inserting a director about two ounces of very foul pus flowed out. As there was some doubt as to the site of the abscess cavity the incision was prolonged backwards for about two inches and more rib was excised. After this the pus was found to come from beneath the diaphragm, especially from a cavity in the spleen substance, the director having traversed the muscular attachments of the diaphragm. The pleural cavity was also found to contain a few ounces of clear fluid which were drawn off. A large drainage-tube was inserted and the patient was put back to bed. For some days after the operation the temperature ranged between 101° and 105° and the pulse ran constantly up to 150; the wound remained in an extremely septic condition, the walls of the cavity being lined with grey sloughs. The pus was very foul, and it was found that the diaphragm, which had been stitched up to the thoracic wall during the operation, had given way, forming a communication between the pleural and abscess cavities. It was found necessary to have a tube draining each cavity, the wound being gently washed out twice daily with weak iodine solution, after which sloughs came away and the wound commenced to granulate.

The patient's condition still remained very critical, and a highly stimulant treatment was found necessary. For the next ten days the general toxæmic symptoms showed no signs of abatement, and on the evening of Nov. 14th, after the wound had been dressed, she was seized with a sudden violent pain in the right side, causing a syncopal attack of great severity. There was a loud friction rub to be heard all over the base of the right chest; an ice bag was applied and the friction rub disappeared in the course of ten days. There were never at any time any physical signs to suggest the presence of fluid. The patient seemed to get worse every day, excepting that she took all her nourishment exceedingly well and kept in remarkably good spirits. On the evening of Nov. 16th, she appeared to get much worse, being very dyspnœic and cyanosed. She had a rigor, the temperature at the time being 102·5°, and the pulse 190 and very small. During the night she had frequent inhalations of oxygen; champagne and brandy were given by the mouth, and strychnine was hypodermically injected. She gradually recovered from that time, having no further rigors and the toxæmic manifestations slowly retrograding. The local condition of the wound daily improved, and after several weeks of careful nursing and dieting, the temperature became normal, the pulse-rate and general condition corresponding favourably. For the last two or three weeks she had been taking ordinary food, and got up for the greater part of the day. The wound is closed except for a very small sinus, the left lung is expanding rapidly, and in the course of a few days the patient will be able to leave the hospital.

Remarks by Dr. VAN PRAAGH.—This case presents many points of exceptional interest. Splenic abscess is by no means a common condition, and it is stated to be most frequently caused by a perforation of a gastric or intestinal ulcer; in this case there was nothing either in the history, the symptoms, or the physical signs to suggest the presence of either; nor was there any local sepsis, adjacent or remote, which could have acted as an exciting cause. The diagnosis was rendered difficult in that the presence of fluid and consolidation at the base of the left chest appeared quite sufficient to account for the symptoms observed. The small size of the abscess rendered it exceedingly difficult of detection and the convalescence was much prolonged by the sloughing of the diaphragm, which caused the abscess cavity to come into direct communication with the pleural cavity. A notable point in the case was the extreme foulness of the abscess, and on account of this the cavity was irrigated with iodine solution and, I feel sure, with marked benefit. The slough separated and the cavity became much cleaner after this was done. The patient's symptoms were extremely acute after the operation, the pulse-rate especially being a great source of apprehension; it seldom went below 150 and I often counted it 180. There was also evidence of infection on the right side, but no fluid collected and the extensive friction rub disappeared within ten days. As regards the medical treatment of the case it consisted in the free use of stimulants and unremitting attention from the nurses.

I have to thank Dr. Cheadle and Mr. Collier for permission to publish this case.

BEDFORD COUNTY HOSPITAL.

TWO CASES OF SUPPURATIVE APPENDICITIS WITH SEPTICÆMIA; RECOVERY OF ONE PATIENT AFTER THE USE OF ANTI-STREPTOCOCCIC SERUM.

(Under the care of Mr. W. GIFFORD NASH.)

EACH of the following two cases illustrates well the extensive septic infection that may occur in appendicitis. In the first case a septic phlebitis occurred in some of the radicles of the mesenteric veins and the infected emboli from these gave rise to the pyæmic abscesses in the liver. In the second case the chief septic complications of the appendicitis were local abscesses. The administration of anti-streptococcic serum in this second case was followed by the recovery of the patient, but data are wanting to enable us to determine whether the serum was active in bringing about this recovery. Anti-streptococcic serum may be administered in cases of true septicæmia—that is to say, cases in which the streptococci have entered the blood-stream or in cases in which only sapræmia is present, when only the products of the organisms have been absorbed. In the latter group of cases it is very doubtful if any improvement could be looked for after the injection of anti-streptococcic serum, as the serum has no effect on the toxins. In cases of true septicæmia before we can expect any benefit from the use of the serum it should be ascertained that streptococci are present in the blood. For if the septicæmia is due to staphylococci no benefit can be expected from the serum. The difficulty of judging the value of the serum is much increased by the fact that there are several varieties of streptococci, each of which requires a special serum. On the whole, the experience of the few years which have passed since the introduction of the serum has not led to a very high opinion as to its value, though in a few cases striking results have followed. For the elucidation of the true value of the serum we need more cases in which it has been employed after a careful bacteriological examination of the blood.

CASE 1. *Appendicitis; abscess; incision; death from hepatic abscess.*—A girl, aged 19 years, was admitted to the Bedford County Hospital on July 21st, 1900, with a history that six days previously she had eaten a large quantity of unripe gooseberries and the following day had a severe attack of abdominal pain with diarrhœa and sickness She kept her bed for three days and then got up, but was forced by a return of pain to go back to bed Mr. Nash was then called to see her, and finding that she had a temperature of 105° F. and appendicitis sent her into hospital. On admission she complained of pain in the abdomen and in the lower part of the back There was tenderness on pressure over the right iliac fossa and a swelling of the size of the palm of the hand was made out by palpation. This was dull on percussion. The temperature was 104°, the tongue was very coated, and marked thirst was present Operation was performed on July 22nd. An incision about three inches long was made over the swelling below and to the outer side of the cæcum. The peritoneum lining the iliac fossa was much thickened and through a softened spot near the apex of the cæcum an abscess was opened containing several ounces of fœtid, brown pus. The appendix, which no doubt was buried in adhesions, was not seen and no prolonged search was made. The pus appeared to have burrowed between the visceral layer of the peritoneum covering the caput cæci and the muscular coat, forming a sort of pocket. The wound was irrigated with perchloride of mercury lotion and a drainage-tube was inserted and packed around with cyanide gauze. For two days after the operation there was some improvement, but on the 25th the temperature rose to 105·8°. On the 26th and 27th there were two rises from the base line to 105°, each rise being accompanied by a rigor. Large doses of quinine were given without any effect. On the 29th the wound was explored with the finger and a concretion was removed which doubtless had formed in the appendix. On the 30th, Mr. Nash being away, the case was handed over to Dr. H. Skelding One or two rigors continued to occur daily and on August 7th the temperature reached 107°. On the 8th Dr. Skelding enlarged the wound as it was feared there might be a collection of pus unable to drain. Another concretion was found but no pus was discovered. From the 9th to the 16th the rigors continued, the temperature ranging up to 105° or 107°, and the pulse from 100 to 140. There were tenderness over the area of the liver and pain referred to the region of the right shoulder The patient gradually became worse and died on August 18th.

Necropsy.—At the post-mortem examination the appendix was found to be surrounded by adhesions and if there had been an aperture it had now closed. The liver was found to be riddled with abscesses varying from the size of a pea to the size of a small orange. An abscess about two and a half inches in diameter was situated in the centre of the right lobe. These cavities contained green putrid offensive pus The spleen was enlarged and contained a few small pyæmic abscesses in its substance. The mesenteric glands were enlarged, fluctuating, and easily broken down, and were found to be infiltrated with pus.

CASE 2. *Appendicitis; abscess; incision; use of anti-streptococcic serum; recovery.*—A girl, aged 17 years, was seized with colicky pains in the abdomen on Sept 14th, 1900 This was accompanied by diarrhœa and vomiting. Four days later the pain was localised to the right iliac fossa During this time she had all the signs of pyrexia. Mr. Nash saw her and sent her into hospital. On admission on Sept. 21st, 1900, her temperature was 102° F., she had general abdominal pain, with a tender lump in the right iliac fossa Mr. Nash on the day after admission made a three-inch incision to the outer side of McBurney's point over the swelling and opened up a localised circumscribed abscess which discharged about a pint of dark yellow offensive pus; a counter opening was made at the outer border of the erector spinæ muscle and a drainage-tube was inserted, connecting it with the first incision; another tube was put into the anterior wound; a fæcal concretion of about the size of a hazel-nut was removed. The patient's condition improved after the operation, the wounds and cavity were syringed out twice daily with sanitas solution, and until the seventh day after the operation the temperature did not rise above 100°. After that daily rises to 102° were common. On Oct 11th Mr. Nash explored the wound under ether. There was no retention of pus in the abscess cavity. As there was tenderness on pressing over the ascending colon in the loin an incision was made exposing the colon and kidney, but no pus was found. This wound closed at once superficially, but pus formed in its depths and had to be evacuated later. Mr. Nash then thought that anti-streptococcic serum should be tried and 10 cubic centimetres of Burroughs and Wellcome's serum were injected twice daily. This did not actually lower the temperature at the time, but an extra secretion of pus occurred The anterior and lumbar wounds for some time previously having looked dry and unhealthy were discharging very little, and on some days no, pus. An examination of the blood on this date showed an excess of leucocytes. 20 cubic centimetres of anti-streptococcic serum were given daily from the day after the second operation for six days. The temperature fell to nearer the base line and did not rise above 100° until 12 days later, when it rose to 102°. On this day fluctuation was made out in the line of the lumbar incision which was closed. This was opened by a probe and dark foul-smelling pus was discharged. A tube was inserted This pocket of pus did not communicate with the other openings Her temperature then fell to 99° and did not rise above this until 11 days later, when it went up to 101·5°; at this time a fluctuating area was discovered above, and internal to, the other lumbar incision and near the middle line of the back, the pus having burrowed upwards This was opened and found to be connected with the cavity opened last by a very narrow sinus; it contained pus similar to that found at the last exploration. After this the patient improved steadily and her temperature did not rise above 99° During the illness brandy, quinine, and nutrients were given freely, and on Jan. 12th, 1901, she was discharged well after the wounds had healed

Remarks by MR. NASH—In THE LANCET of March 24th, 1900, p 852 was published a case of mine in which death occurred from hepatic abscess due to appendicitis In that case the suppuration in the liver was due to direct infection from pus tracking up behind the ascending colon In the case now recorded the infection was probably carried by the portal vein In the second case, although very free drainage was provided, septicæmia occurred. It is impossible to prove that the anti streptococcic serum did any good, but my opinion is that without it the patient would have died. In neither case was any attempt made to remove the appendix It is doubtful whether, if we had done so, the septicæmia would have been averted, as in the first case at the post mortem examination the appendix had so far recovered that the site of the perforation was not found, showing that there could not have been any sloughing.

Medical Societies.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY—A clinical meeting of this society was held on March 27th, Dr Gordon Black, the President, being in the chair.—Dr. B. J Hellier showed a patient on whom he had performed Conservative Cæsarean Section in November, 1900;[1] partial salpingectomy was performed at the same time The patient was in excellent health Menstruation was quite normal and there was no dysmenorrhœa The child had thriven very well—Mr. B. G. A. Moynihan showed a series of Stomach Operations: (1) Gastroplication performed three and a half years ago; (2) Gastro-gastrostomy and Gastroplasty for hour glass stomach; (3) Pyloroplasty for pyloric stenosis; (4) Gastro-enterostomy for simple and malignant disease; and (5) Gastrostomy.—Dr. T. Browne Hearder showed a married woman, aged 35 years, suffering from Raynaud's Disease—the stage of local asphyxia The duration had been for three months. There were no cardiac disease, no hæmoglobinuria, and no enlargement of the thyroid. She was improving under administrations of suprarenal tabloids.—Dr. E. Ward showed: (1) Hemithyroidectomy, rapid shrinking of the remaining half of the thyroid gland; (2) Gastro enterostomy, skiagram showing Murphy's button at the cardiac end of the stomach; and (3) Tendon Lengthening, partial relapse.—Dr. C. M. Chadwick showed: (1) Disseminating Sclerosis without Nystagmus; and (2) Paralysis Agitans with an Interesting History of Commencement.—Mr. W. H. Brown showed: (1) An Endosteal Tumour of the Os Frontis; (2) a Vesical Calculus from a boy, suprapubic lithotomy; (3) Plastic Operation for Ectopia Vesicæ; and (4) a Cephalic Meningocele.—Mr. Herbert J. Robson showed a case of Fracture of the Lower Jaw in an Edentulous Subject. The patient was 46 years of age. The fracture was at the junction of the left inner third with the outer two-thirds. The cause was direct violence. The patient was seen with Mr. Littlewood Young who made splints out of the artificial plates which were locked together, holes being made in the front and the sides for feeding and syringing purposes. Perfect union occurred at the end of four weeks.—Mr. A. L. Whitehead showed (1) a case from which a Rodent Ulcer involving half the lower eyelid had been removed 12 months previously, and in which a plastic operation had been performed for the restoration of the lid; (2) a case of Nævus of the Upper and Lower Eyelids in which repeated electrolysis having failed to effect a cure complete excision was performed with no subsequent deformity; (3) a case of Albuminuric Neuro-Retinitis; and (4) a case of Partial Detachment of the Retina following a localised cyclitis.—Dr. T. Wardrop Griffith showed: 1. A characteristic case of Acromegaly in a woman who had been under observation about seven years. 2. A woman, aged 32 years, who had been the subject of Laryngeal Fistula, the result of tertiary syphilitic changes. The fistula passed through the lower part of the thyroid cartilage, and there was extensive ulceration of the mucous membrane below the true vocal cords. The fistula had healed, and the ulceration was clearing up under iodide of potassium. 3 A young man, aged 19 years, who for upwards of two years had been the subject of Carpopedal Contractions of the "tetany" type. These had varied very much in severity but during the whole time the patient presented the facial phenomenon usually known as Chvostek's symptom.—Mr. Lawford Knaggs showed a patient nine months after Double Vasectomy for Prostatic Enlargement and Retention.—Mr. Mayo Robson and Mr. Lawford Knaggs showed a man, aged 84 years, who had been admitted to hospital in October with Prostatic Retention, and catheterism becoming impossible suprapubic cystotomy was performed and the prostate was felt to project into the bladder. For some time he was very feeble and in December double vasectomy was performed under cocaine. He was now in very good condition and was able to pass urine by the urethra every two hours. He had been re-admitted for another attack of retention induced by cold, but this had been completely relieved by a hot bath.—Dr. E. F. Trevelyan showed: 1. Two cases of Chronic Chorea, one in a girl, aged 20 years, and the other in a man, aged 50 years. The disease had lasted 14 and 20 years respectively. The movements were of the jerking purposeless type and were especially marked in the girl. There were no cardiac murmur in either case and no history of rheumatism. 2 A case of Graves's Disease in a man, aged 35 years, who had been under observation for seven years. His present condition was much the same now as it was then. The exophthalmos was more marked on the right side 3 A woman, aged 36 years, with Mitral Stenosis, who had recovered from a characteristic embolic hemiplegia. There was only a slight clumsiness in some of the fine movements of the fingers remaining. 4. Two cases of Cutaneous Syphilis, one with an extensive rupial eruption which improved rapidly under mercurial inunction.

---

[1] Brit. Med. Jour., Jan. 5th, 1901.

HUNTERIAN SOCIETY.—A meeting of this society was held on March 27th, Dr. J. Dundas Grant, the President, being in the chair.—Dr. W. H. Kelson read a paper on Some Affections of the Four Tonsils, touching chiefly on points in regard to which errors of diagnosis and treatment were common. Mycosis, herpes, and syphilis of the tonsils and its three stages were discussed, and the supra-tonsillar fossa with its diseases was described, with special reference to the work of Dr. D. R. Paterson. The various operations for reduction in size or removal of the faucial and post-nasal tonsils were reviewed and criticised, and the best methods of dealing with hæmorrhage and other complications were referred to. It was shown that hard substances were present in the tonsils, chiefly under three heads: (1) foreign bodies, (2) hardened, inspissated masses of secretion known as calculi, and (3) cartilaginous or bony nodules, thought by some to be vestigial remains derived from the second branchial arch. Malignant disease was touched upon and the great importance of its early recognition was shown. Affections of the lingual tonsil and the different views held as to the symptoms that might be thereby produced were described. The diseases of the four tonsils were finally considered collectively and comparatively as regards age and sex—also the likelihood of these acting as centres or points of origin for tuberculous infection, and their close relationship to rheumatism, gout, septic infection, and the fevers.—Dr. Fortescue Fox suggested that the occurrence of acute tonsillitis at the beginning of acute rheumatism might indicate the point of admission of the infective agent. He pointed out the infrequent association between gout and chronic follicular tonsillitis.—Mr. John Adams referred to the difficulty of diagnosis of syphilides on the tonsils alone. He had never seen a primary sore upon the tonsils and only one sarcoma of the tonsils —Mr. Francis Humphreys remarked upon a possible causal association between appendicitis and tonsillitis; these often occurred together. He referred to some cases of apparently commencing rheumatic fever that had been cut short by applications to the tonsils —Dr. W. J. McC. Ettles said that he had found the application of sulphurous acid and glycerine effective in the treatment of pharyngeal mycosis and salicylate of soda in acute tonsillitis.—Dr. Carson referred to the occasional existence of a bleeding point high up in the tonsil in cases of obstinate bleeding from the throat. Persistent bleeding after removal of tonsils never occurred if the patient was allowed to rest after the operation.—The President said that it was very often best to neglect pharyngo-mycosis as a disease of little consequence and tedious to treat. He referred to cases of great pain in the throat with only slight morbid appearances in influenza. A mixture of 10 per cent menthol, 10 per cent. guaiacol, and 80 per cent. olive oil was an effective application in tonsillitis. Tonsils were like open wounds so far as infection went; nurses sometimes became infected from the feeding-bottles of syphilitic children. An enlarged tonsil sometimes blocked up the entrance to the supra-tonsillar fossa. Removal of the pharyngeal tonsil sometimes should be carried out through the anterior nares. Enlargement of the lingual tonsil sometimes caused gre[illegible]ess when it touched the epiglottis. In bleeding after t[illegible]ny some recommended lying down, some sitting up.

DERMATOLOG[illegible]IETY OF GREAT BRITAIN AND IRELAND.—A meeti[illegible] of the above society was held at 20, Hanover-square, London, W., on March 27th, Dr. A. J. Harrison, the President, being in the chair, when the following cases were shown. Dr. William T. Freeman showed a Mottled Erythema of the Legs resembling "erythema ab igne" but with no history of exposure to heat.—Dr. P. S. Abraham brought forward (1) a Malay who had been supposed to be the subject of Elephantiasis Græcorum. The man had several cicatrices on the thighs, but these had possibly resulted from an attack of plague from which he had suffered. (2) A girl of about 12 years of age, with an Exuberant Congenital Linear Papillomatous Growth extending from the chin in the median line of the neck to below the thyroid body. With regard to the first of the two cases Dr. Abraham thought that the diagnosis must remain indefinite.—Dr. Alfred Eddowes showed a case of Lupus Erythematosus beginning in the follicles —Mr. Arthur Shillitoe brought forward a man of middle age suffering from an extensive Pustular Dermatitis of the Legs and Thighs.—The President was inclined to think that its origin was syphilitic.—Several members considered that the use of strong ointments, with which the man had been treating himself, had aggravated an initial eczema into the formidable folliculitis now present.—Dr. J. H. Stowers advised the use of sedative lotions and in particular the avoidance of any greasy applications.—Mr. George Pernet showed (for Dr Radcliffe Crocker) (1) a boy, aged four years, with an acute attack, dating from a fortnight previously, of Prurigo of Hebra (Dr. Crocker spoke in support of this diagnosis and considered that the alternative, urticaria papulosa, was negatived by the distribution and type of the lesions); and (2) a young woman with a large Keloid of the Arm which had benefited under continued injections with thiosinamine.—Dr. J. Herbert Stowers brought forward a woman suffering from Bazin's Disease of unusual distribution.—Dr. Graham Little showed a case of Chronic Acne Scrofulosorum in a child, aged 12 years. Giant cells but no tubercle bacilli had been found in sections of an excised pustule.

KIDDERMINSTER MEDICAL SOCIETY.—A meeting of this society was held at the Kidderminster Infirmary on March 29th, Mr. J. Lionel Stretton, the President, being in the chair.—The secretary announced that as a result of a conference between a sub-committee of the society and a deputation from the Stourport Medical Association the association had amended its rules so that in future: (1) the association would confine its membership solely to the *bonâ-fide* wage-earning classes; (2) canvassing for members would be prohibited; and (3) the capital would not exceed £100 In consideration of these amendments the disabilities which had been imposed upon their medical officer were removed.[1]—The President showed (1) a large Cyst of the size of a bantam's egg removed from the verge of the anus of a man, aged 48 years; and (2) an Appendix Cæci removed from a woman, aged 25 years. She was seized with acute symptoms on a Friday night after a hearty meal. The medical attendant was called in on the Sunday, when he found that the patient was suffering from appendicitis with some [illegible] consultation it was decided [illegible] was done by the usual incision [illegible] pint of milky pus and some fæ[illegible] perforation was found near the root of the appendix from which fæcal matter was flowing freely; the tip, which was fully six inches away and was also perforated, was fixed *posteriorly*. It was ligatured and removed and the abdomen was swabbed out with sterilised gauze, a strip being left in, and the wound was closed with silkworm gut sutures On the following day the pulse was 98 and the temperature was normal.—The President remarked on the great length of the appendix, the fact that there were two perforations, and the remarkable recovery in spite of the large amount of peritonitis and constitutional disturbance. He insisted on the importance of dry swabbing as opposed to flushing.—Dr. Evans read notes of a case of Strangulated Hernia upon which he had operated.

CARDIFF MEDICAL SOCIETY.—The ordinary monthly meeting of this society was held on March 1st, Dr. E. Walford, the President, being in the chair.—The minutes of the last two meetings were read and confirmed.—Dr. W. Mitchell Stevens sent for the acceptance of the society a Ross's Eclipse Microscope which had been purchased through the subscriptions of several members and the heartiest thanks of the society were given to Dr Stevens.—The President read a letter from Mr. Edmund Owen cordially accepting the committee's invitation to give the annual address in June.—Dr. Herbert G. G. Cook showed a specimen of a Tumour of the Breast removed six days previously. The history of the case was one of from eight to nine years' duration with rapid increase of growth latterly. The diagnosis lay between sarcoma, carcinoma, and tubercle Microscopical examination proved it to be carcinomatous.—Mr. William Sheen showed an Arm amputated for Recurrent Sarcoma A mass of infected axillary glands were also removed and the axillary artery was compressed through this wound while the arm was amputated.—Mr. J. Lynn Thomas related his experiences with the Welsh Hospital in South Africa, illustrating his remarks by lantern-slides of Springfontein, Bloemfontein, and Pretoria Mr. Thomas also showed slides of the different forms of missiles used in the campaign and gave his general impressions of the surgery of the war.—The President expressed the thanks of the society to Mr. Thomas for his communication.

ROCHDALE AND DISTRICT MEDICAL SOCIETY.—At a meeting of this society on April 4th, Dr. E S Yonge (Manchester) gave a demonstration on the Methods of Examining the Larynx, Trachea, and Œsophagus in Adults and Children. Useful hints were given as regards the use of the laryngoscope in difficult cases and exceptional methods were referred to. A large number of instruments were shown and their use was demonstrated on patients.—In replying to a vote of thanks Dr. Yonge, in response to a suggestion, made some remarks on the Diagnosis of Post-nasal Adenoids.

Reviews and Notices of Books.

Student's Edition: a Practical Treatise of Materia Medica and Therapeutics, with special reference to the Clinical Application of Drugs. By JOHN V. SHOEMAKER, M.D., LL D., Professor of Materia Medica, Pharmacology, and Therapeutics in the Medico-Chirurgical College of Philadelphia. Fifth edition. Philadelphia: F. A Davis Company. Pp vii-770. Extra cloth, $4 00 net.

THE present edition marks a curious result of the rapid growth of new remedies. The author has decided to divide his well-known work into two independent issues, adapted respectively to the requirements of students and physicians. In this volume, which is intended for students, attention is limited to the drugs and preparations which are official in the Pharmacopœias of the United States and Great Britain. Whether the forthcoming Physicians' Edition will consist solely of unofficial remedies or will include such remedies in addition to the material in the present volume is not yet disclosed. The Students' Edition will be found sufficiently comprehensive for ordinary purposes and it contains many references to unofficial drugs which are "chemical modifications" of those within the pale.

The book is divided into two parts In the first the author deals briefly with general considerations concerning remedies and systems of treatment, with prescription-writing and formulæ, and with poisons and antidotes, together with other cognate matters. The second part consists of a single section, nearly 650 pages in length, relating to official remedies or drugs contained in the United States and British Pharmacopœias English readers will find the first part of little service as, for example, in the pharmaceutical classes of remedies, attention is concentrated on the United States Pharmacopœia and the result is somewhat bewildering Thus 88 fluid extracts are enumerated, whilst the list of pills falls far short of that in the British Pharmacopœia. On the other hand, all that relates to prescription-writing and formulæ may be studied with pleasure and profit, and under this heading will be found valuable lists of drugs which form explosive compounds, of those forming unsightly and undesirable mixtures, and of those which are physiologically incompatible.

With regard to the second part it may be doubted whether the alphabetical order is best adapted for a student's text-book It facilitates reference, but it appears to suggest that the volume is not to be studied as a whole. We should have preferred to have had the drugs grouped according to their leading therapeutic actions which would favour comparison and selection, leaving the index to save the time and trouble of the more advanced student who desires to refresh his memory rapidly

The author has evidently taken great pains with the revision of this edition as he includes references to numerous recent contributions to the literature of official remedies Each drug has separate sections relating to its definition, its preparations, its pharmacology, its toxicology (with appropriate antidotes), and its therapeutic actions, with suggestions as to eligible forms of administration. The term "pharmacology," although defined in the earlier pages, is used in several different senses; sometimes (see p 77) it includes only the physical and chemical properties, and physiological action is dealt with in a separate section, while on a previous page (see p 75) under the same heading there are descriptions of physiological actions and of toxic effects, while the term "toxicology" only embraces the treatment of the latter. For the use of senior students such occasional lapses are perhaps of small moment when compared with the amount of information included under the name of each drug. The numerous prescriptions on almost every page will be found suggestive and useful. As a whole, however, notwithstanding its title, this edition appears likely to be more serviceable as a book of reference for the busy practitioner than as a text-book for students. Although everyone derives benefit from consulting a dictionary few would be bold enough to attempt to study it page by page.

---

[1] See THE LANCET, April 6th, p. 1032.

The City of London Directory for 1901. Including a Streets Guide, Alphabetical Directory, Trades Guide, Livery Companies Guide, List of Liverymen Voters, a Biographical Directory, Corporation Directory, Public Companies Directory, and also a Coloured Map of the City of London. The thirty-first annual edition. London: W. H. & L. Collingridge. Pp. 1222. Price 12*s.* 6*d.*

The first edition of the "City of London Directory" published in the twentieth century and in the first year of the reign of His Most Gracious Majesty King Edward VII. is the thirty-first annual issue of this publication. The edition contains much exclusive information in regard to the corporation, the livery companies, the charities, the clubs, the officers and administrative departments, the schools, and the commercial circles of the City of London. The official section contains a complete list of the aldermen and members of the Court of Common Council, with full details of the officials connected with the various executive bodies of the City. A list of the mayors, aldermen, and councillors of the new borough councils is a feature of the work. Lists are given of the members of the Court of Lieutenancy, the London County Council, the London School Board, and the City of London Union. Particulars of the city churches appear, together with a list of the clergy and a statement as to the value of their benefices. The educational advantages and opportunities which the city schools afford to all classes are described, and particulars of all these schools are given with reliable information as to fees and scholarships and numerous historical details. The streets section has been carefully revised, all the occupiers whose names appear having been canvassed to ensure accuracy. The alphabetical list contains the name, address, and trade or profession of every person, and, as far as can be ascertained, of each individual member of firms in the City of London. The names are classified again as a trades guide under the various trades or professions. The street improvements of the year are indicated in a large coloured map, and include all recent alterations. The Central London Railway is shown as a line in use, and the Great Northern and City Railway as a line in course of construction. The boundaries of the wards and parishes are accurately marked, the former being clearly indicated in colour; and ready reference is facilitated to every street and turning in "the one square mile."

The directory is a valuable book of reference which finds a place as a matter of course on the shelves of most business men residing in, or closely connected with, the City of London.

Medico-Surgical Aspects of the Spanish-American War. By Dr. NICHOLAS SENN, Chief Surgeon, U.S. Volunteers. Chicago: American Medical Association Press. 1900. Pp. 380.

This book is apparently a collection of papers and letters contributed to various journals, and this being so, it is not written upon any definitely coherent plan. However, it gives a series of very striking pictures of the work of an army surgeon in war-time. There is a passage on page 10 which reads oddly in the light of present events and may be paralleled by our own case in South Africa. "The hero of Manilla has planted the Stars and Stripes, the emblem of liberty and equality, on the shores of the distant Philippine Islands; there it will remain until the unhappy inhabitants breathe the bracing air of independence." The inhabitants at present, however, seem to be as incredulous of the blessings of the rule of the Great Republic as are the Boers of the blessings of British rule. One of the most interesting sections in the book is that entitled, "Recent Experiences in Military Surgery after the Battle of Santiago." With regard to wounds inflicted by the small-calibre jacketed bullet it was noticed that where the wounds were infected it was more often at the wound of exit than at that of entry, a fact which Dr. Senn explains by the larger size of the wound and the greater laceration of the tissues. Dr. Senn lays stress upon what has been noticed over and over again in South Africa—that more attention must be paid to the value of the first dressing; and he recommends that in every first-dressing package a packet of antiseptic powder should be supplied. He prefers a combination of boric and salicylic acids in the proportion of four to one. The use of the *x* rays was found to be very valuable in the location of projectiles. Penetrating gunshot wounds of the abdomen healed in many cases without surgical interference and Dr. Senn quotes one remarkable instance. A soldier received an injury while lying in the prone position, the bullet entering the left infra-spinous fossa and passing downwards and inwards until it lodged under the skin in the median line, two inches above the umbilicus. The patient had a good deal of hæmoptysis for two days. An abscess formed in the abdominal wall, which was opened 18 days after the injury and the bullet was removed. After this rapid improvement occurred.

The section dealing with "The Qualifications and Duties of the Military Surgeon" is excellent reading. We have perused it with both pleasure and profit, and we expect those of our readers who are interested in the subject—and who is not at the present time?—will do the same. The chapter is, we think, sensible, practical, and full of good points. Lieutenant-Colonel Nicholas Senn, as chief surgeon of the United States Volunteers and chief of the operating staff with the army in the field, had good opportunities for seeing the work done by the surgeons of the regular army of the United States and those of the National Guard. War is the most searching test of field medical systems and methods for these speedily arrange themselves upon the sides of right and wrong, workable and unworkable. It is because this fact, although only just touched upon by the author, is nevertheless recognised in a wholesome and straightforward spirit that we read what he has to say with gratification.

LIBRARY TABLE.

The Thompson-Yates Laboratories Reports. Edited by RUBERT BOYCE and C. S. SHERRINGTON. Vol. III., Part II. Liverpool: At the University Press. 1901. Pp. 266. Price 5*s.* 6*d.* net.—This book is beautifully got up in the accustomed style of the Liverpool University Press. Nearly half the book is taken up by the third memoir of the Liverpool School of Tropical Medicine, being Part I. of the Malaria Expedition to Nigeria. Among the other papers are an obituary notice of the late Dr. Walter Myers, a paper by Dr. S. R. Christophers on the Prevention of Malaria in Tropical Africa, and one on the Life-history of the Parasites of Malaria, by Major Ronald Ross and Dr. R. Fielding-Ould.

Encyklopadie der Gesammten Chirurgie. (*Encyclopædia of General Surgery.*) Edited by Professor THEODOR KOCHER and Dr. F. DE QUERVAIN. Leipzig: F. C. W. Vogel. 1901. Part I. Aachen—Angioma. Large 8vo. Pp. 48. Price 2 marks.—This surgical dictionary, alphabetically arranged, and well printed in double columns in a large page, is expected to be completed in 25 parts at 2 marks each. The list of contributors is a long one, containing many eminent names, and to judge from Part I., which terminates with Angioma, the work promises well. Some of the principal articles, each of about three pages, are Abscess, by Dr.

Buchbinder of Leipzig; Achselhöhle, by Professor Zuckerkandl of Vienna and Dr. Bardenheuer of Cologne; Adnexerkrankungen, by Dr H. W. Freund of Strassburg; Aether, by Dr. Dumont of Bern; Alkohol, by Dr. F. de Quervain of La Chaux-de-Fonds, one of the editors; and Amputation, by Dr. Dumont Several illustrations are inserted in the text.

Another English Woman's Love Letters. By BARRY PAIN. London: T. Fisher Unwin. 1901. Pp. 142 Price 2*s* — Most persons have by this time read the much talked about "Love Letters of an English Woman," that clever picture of a morbid, introspective, and much-to-be-pitied woman who gave herself heart and soul to an insufferable "bounder" who posed as an honourable gentleman and sent the woman who loved him "his kind regards" when she lay on her death bed. We owe a great debt of gratitude to the author, whoever he be, seeing that he has been the cause of Mr. Barry Pain giving to the world the delightful little book now before us. Despite the east winds, a rising income-tax, and the census, the other Englishwoman has given us cause for many a laugh The therapeutics of laughter are well known and we recommend our readers first to peruse the book themselves and then to tell their patients to do the same The Italian portion of the letters is inimitable.

The Clincher Guide Cycling Routes of England and Wales. With a Map. By T. A. EDGE London: Walter Scott, Limited. 1901. Price 1*s*.—In this little book the roads of England and Wales are tabulated in a series of routes and all towns are indexed The mileage, including a description of the surface and the contour of the roads, is also indicated by means of easily remembered letters and symbols. On the map numbers are placed which correspond with the various series of routes and by the aid of the ample index it is a simple matter for a cyclist to trace the best way to take between any two given towns. We are not aware of any book which gives so much useful information in a form so easy for reference and so cheap.

JOURNALS.

Edinburgh Medical Journal —The first of the original communications in the April number is an article on Light and Colour Perception, by Dr. F. W Edridge-Green, an outline of whose views on the subject will be found in THE LANCET of May 26th, 1900 (p. 1511), August 4th, 1900 (p 323), and in another column of the present number (p 1077). He considers that the solar spectrum may be divided into six bands, each of which is monochromatic so far as visual perception is concerned, because no person looking at such an isolated band could tell which edge of it was directed either to the red or to the blue end of the spectrum. It is of course well known that the wave lengths in every part of the spectrum undergo progressive alteration, but persons with ordinary normal vision can recognise only six distinct colours—namely, red, orange, yellow, green, blue, and violet Colour-blindness, he says, is due to the widening of one or more of these bands, so that as the length of the natural spectrum remains the same the number of the bands becomes reduced. In the first degree of colour-blindness five instead of six colours are seen, orange having disappeared In the next degree only four colours are seen, blue having disappeared. After blue it is yellow which disappears In the next degree of colour-blindness only two colours are seen, green having disappeared. Those who see only two colours in the spectrum confuse red, orange, yellow, and green on the one hand and blue green, blue, and violet on the other. He considers that colour-blindness should be tested, not by matching different colours, such as coloured wools, but by naming the colours. Two papers are concluded in this number—namely, one on the Form of Crystals, by Dr. J. Bell Pettigrew, and one on Pernicious Anæmia, by Dr. Vincent Dickinson.

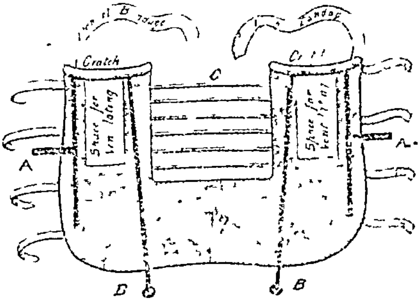
Caledonian Medical Journal —The April number opens with a Gaelic elegy on the death of Queen Victoria. In the editorial paragraphs it is announced that the Gunning Celtic Prizes have occasioned a considerable correspondence on the part of inquirers asking information from the secretary, Dr. S. R Macphail of Rowditch, Derby. Particulars of these prizes have already appeared in THE LANCET of Dec 8th (p 1658) and Dec 22nd (p. 1825), 1900, and Jan. 19th (p 191), 1901. The frontispiece shows the main block of the sanatorium for tuberculosis at Nordrach on-Dee, and the accompanying description states that there are many miles of specially laid out walks in the grounds of the sanatorium and in the surrounding forests. Dr. Alastair MacGregor of Shepley, Huddersfield, in bringing to a close his series of articles on "second sight," gives details of various instances of premonition of death by spectral apparitions and unaccountable noises, and Sir Arthur Mitchell of Edinburgh writes quoting from Aubrey's "Miscellanies" a passage to the effect that Harvey, the discoverer of the circulation of the blood, was saved from drowning in the Straits of Dover through the agency of a warning vision seen by the governor of Dover in a dream.

Mercy and Truth —In the April number Dr Martyn Clark writes on baptisms at Amritsar in the Punjab, and Dr. Howard Cook contributes an illustrated description of a visit to Toro in East Africa It is announced that the Archbishop of Canterbury will preside at the annual meeting of the Medical Mission Auxiliary in St. James's Hall on April 30th.

New Inventions.

JACKET FOR SPINAL CARIES AND ANGULAR CURVATURE.

I HAVE had this jacket made for the treatment of a case of angular curvature of the spine coming on in adult life and involving the eighth and ninth dorsal vertebræ After several months' confinement to his room the patient recovered so far that with the help of this jacket he was able to resume his occupation. The illustration shows the jacket as it would appear if flattened out and looked at from behind The shaded part is of leather—stout sole leather dipped for a minute or two in boiling water and moulded to the body by firm bandaging. The four thick black lines represent uprights made of bamboo or other strong light wood and fastened to the leather. The hinder pair (B B) extend below the leather and rest on the chair when the wearer sits



will be found suggestive and useful. As a whole, however, notwithstanding its title, this edition appears likely to be more serviceable as a book of reference for the busy practitioner than as a text-book for students. Although everyone derives benefit from consulting a dictionary few would be bold enough to attempt to study it page by page.

The City of London Directory for 1901. Including a Streets Guide, Alphabetical Directory, Trades Guide, Livery Companies Guide, List of Liverymen Voters, a Biographical Directory, Corporation Directory, Public Companies Directory, and also a Coloured Map of the City of London. The thirty-first annual edition. London: W. H. & L. Collingridge. Pp. 1222. Price 12*s.* 6*d.*

THE first edition of the "City of London Directory" published in the twentieth century and in the first year of the reign of His Most Gracious Majesty King Edward VII. is the thirty-first annual issue of this publication. The edition contains much exclusive information in regard to the corporation, the livery companies, the charities, the clubs, the officers and administrative departments, the schools, and the commercial circles of the City of London. The official section contains a complete list of the aldermen and members of the Court of Common Council, with full details of the officials connected with the various executive bodies of the City. A list of the mayors, aldermen, and councillors of the new borough councils is a feature of the work. Lists are given of the members of the Court of Lieutenancy, the London County Council, the London School Board, and the City of London Union. Particulars of the city churches appear, together with a list of the clergy and a statement as to the value of their benefices. The educational advantages and opportunities which the city schools afford to all classes are described, and particulars of all these schools are given with reliable information as to fees and scholarships and numerous historical details. The streets section has been carefully revised, all the occupiers whose names appear having been canvassed to ensure accuracy. The alphabetical list contains the name, address, and trade or profession of every person, and, as far as can be ascertained, of each individual member of firms in the City of London. The names are classified again as a trades guide under the various trades or professions. The street improvements of the year are indicated in a large coloured map, and include all recent alterations. The Central London Railway is shown as a line in use, and the Great Northern and City Railway as a line in course of construction. The boundaries of the wards and parishes are accurately marked, the former being clearly indicated in colour; and ready reference is facilitated to every street and turning in "the one square mile."

The directory is a valuable book of reference which finds a place as a matter of course on the shelves of most business men residing in, or closely connected with, the City of London.

Medico-Surgical Aspects of the Spanish-American War. By Dr. NICHOLAS SENN, Chief Surgeon, U.S. Volunteers. Chicago: American Medical Association Press. 1900. Pp. 380.

THIS book is apparently a collection of papers and letters contributed to various journals, and this being so, it is not written upon any definitely coherent plan. However, it gives a series of very striking pictures of the work of an army surgeon in war-time. There is a passage on page 10 which reads oddly in the light of present events and may be paralleled by our own case in South Africa. "The hero of Manilla has planted the Stars and Stripes, the emblem of liberty and equality, on the shores of the distant Philippine Islands; there it will remain until the unhappy inhabitants breathe the bracing air of independence." The inhabitants at present, however, seem to be as incredulous of the blessings of the rule of the Great Republic as are the Boers of the blessings of British rule. One of the most interesting sections in the book is that entitled, "Recent Experiences in Military Surgery after the Battle of Santiago." With regard to wounds inflicted by the small-calibre jacketed bullet it was noticed that where the wounds were infected it was more often at the wound of exit than at that of entry, a fact which Dr. Senn explains by the larger size of the wound and the greater laceration of the tissues. Dr. Senn lays stress upon what has been noticed over and over again in South Africa—that more attention must be paid to the value of the first dressing; and he recommends that in every first-dressing package a packet of antiseptic powder should be supplied. He prefers a combination of boric and salicylic acids in the proportion of four to one. The use of the x rays was found to be very valuable in the location of projectiles. Penetrating gunshot wounds of the abdomen healed in many cases without surgical interference and Dr. Senn quotes one remarkable instance. A soldier received an injury while lying in the prone position, the bullet entering the left infra-spinous fossa and passing downwards and inwards until it lodged under the skin in the median line, two inches above the umbilicus. The patient had a good deal of hæmoptysis for two days. An abscess formed in the abdominal wall, which was opened 18 days after the injury and the bullet was removed. After this rapid improvement occurred.

The section dealing with "The Qualifications and Duties of the Military Surgeon" is excellent reading. We have perused it with both pleasure and profit, and we expect those of our readers who are interested in the subject—and who is not at the present time?—will do the same. The chapter is, we think, sensible, practical, and full of good points. Lieutenant-Colonel Nicholas Senn, as chief surgeon of the United States Volunteers and chief of the operating staff with the army in the field, had good opportunities for seeing the work done by the surgeons of the regular army of the United States and those of the National Guard. War is the most searching test of field medical systems and methods for these speedily arrange themselves on the sides of right and wrong, workable and unworkable. It is because this fact, although only just touched upon by the author, is nevertheless recognised in a wholesome and straightforward spirit that we read what he has to say with gratification.

LIBRARY TABLE.

The Thompson-Yates Laboratories Reports. Edited by RUBERT BOYCE and C. S. SHERRINGTON. Vol. III., Part II. Liverpool: At the University Press. 1901. Pp. 266. Price 5*s.* 6*d.* net.—This book is beautifully got up in the accustomed style of the Liverpool University Press. Nearly half the book is taken up by the third memoir of the Liverpool School of Tropical Medicine, being Part I. of the Malaria Expedition to Nigeria. Among the other papers are an obituary notice of the late Dr. Walter Myers, a paper by Dr. S. R. Christophers on the Prevention of Malaria in Tropical Africa, and one on the Life-history of the Parasites of Malaria, by Major Ronald Ross and Dr. R. Fielding-Ould.

Encyklopadie der Gesammten Chirurgie. (Encyclopædia of General Surgery.) Edited by Professor THEODOR KOCHER and Dr. F. DE QUERVAIN. Leipzig: F. C. W. Vogel. 1901. Part I. Aachen—Angioma. Large 8vo. Pp. 48. Price 2 marks.—This surgical dictionary, alphabetically arranged, and well printed in double columns in a large page, is expected to be completed in 25 parts at 2 marks each. The list of contributors is a long one, containing many eminent names, and to judge from Part I., which terminates with Angioma, the work promises well. Some of the principal articles, each of about three pages, are Abscess, by Dr.

Buchbinder of Leipzig; Achselhöhle, by Professor Zuckerkandl of Vienna and Dr. Bardenheuer of Cologne; Adnexerkrankungen, by Dr. H. W. Freund of Strassburg; Aether, by Dr. Dumont of Bern; Alkohol, by Dr. F. de Quervain of La Chaux-de-Fonds, one of the editors; and Amputation, by Dr. Dumont. Several illustrations are inserted in the text.

Another English Woman's Love Letters. By BARRY PAIN. London: T. Fisher Unwin. 1901. Pp. 142. Price 2*s.*—Most persons have by this time read the much-talked-about "Love Letters of an English Woman," that clever picture of a morbid, introspective, and much-to-be-pitied woman who gave herself heart and soul to an insufferable "bounder" who posed as an honourable gentleman and sent the woman who loved him "his kind regards" when she lay on her death-bed. We owe a great debt of gratitude to the author, whoever he be, seeing that he has been the cause of Mr. Barry Pain giving to the world the delightful little book now before us. Despite the east winds, a rising income-tax, and the census, the other Englishwoman has given us cause for many a laugh. The therapeutics of laughter are well known and we recommend our readers first to peruse the book themselves and then to tell their patients to do the same. The Italian portion of the letters is inimitable.

The Clincher Guide Cycling Routes of England and Wales. With a Map. By T. A. EDGE. London: Walter Scott, Limited. 1901. Price 1*s.*—In this little book the roads of England and Wales are tabulated in a series of routes and all towns are indexed. The mileage, including a description of the surface and the contour of the roads, is also indicated by means of easily remembered letters and symbols. On the map numbers are placed which correspond with the various series of routes and by the aid of the ample index it is a simple matter for a cyclist to trace the best way to take between any two given towns. We are not aware of any book which gives so much useful information in a form so easy for reference and so cheap.

JOURNALS.

Edinburgh Medical Journal.—The first of the original communications in the April number is an article on Light and Colour Perception, by Dr. F. W. Edridge Green, an outline of whose views on the subject will be found in THE LANCET of May 26th, 1900 (p. 1511), August 4th, 1900 (p. 322), and in another column of the present number (p. 1077). He considers that the solar spectrum may be divided into six bands, each of which is monochromatic so far as visual perception is concerned, because no person looking at such an isolated band could tell which edge of it was directed either to the red or to the blue end of the spectrum. It is of course well known that the wave lengths in every part of the spectrum undergo progressive alteration, but persons with ordinary normal vision can recognise only six distinct colours—namely, red, orange, yellow, green, blue, and violet. Colour-blindness, he says, is due to the widening of one or more of these bands, so that as the length of the natural spectrum remains the same the number of the bands becomes reduced. In the first degree of colour-blindness five instead of six colours are seen, orange having disappeared. In the next degree only four colours are seen, blue having disappeared. After blue it is yellow which disappears. In the next degree of colour-blindness only two colours are seen, green having disappeared. Those who see only two colours in the spectrum confuse red, orange, yellow, and green on the one hand and blue-green, blue, and violet on the other. He considers that colour-blindness should be tested, not by matching different colours, such as coloured wools, but by naming the colours. Two papers are concluded in this number—namely, one on the Form of Crystals, by Dr. J. Bell Pettigrew, and one on Pernicious Anæmia, by Dr. Vincent Dickinson.

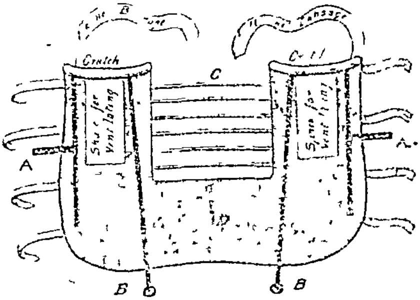
Caledonian Medical Journal.—The April number opens with a Gaelic elegy on the death of Queen Victoria. In the editorial paragraphs it is announced that the Gunning Celtic Prizes have occasioned a considerable correspondence on the part of inquirers asking information from the secretary, Dr. S. R. Macphail of Rowditch, Derby. Particulars of these prizes have already appeared in THE LANCET of Dec. 8th (p. 1658) and Dec. 22nd (p. 1825), 1900, and Jan. 19th (p. 191), 1901. The frontispiece shows the main block of the sanatorium for tuberculosis at Nordrach-on-Dee, and the accompanying description states that there are many miles of specially laid out walks in the grounds of the sanatorium and in the surrounding forests. Dr. Alastair MacGregor of Shepley, Huddersfield, in bringing to a close his series of articles on "second sight," gives details of various instances of premonition of death by spectral apparitions and unaccountable noises, and Sir Arthur Mitchell of Edinburgh writes quoting from Aubrey's "Miscellanies" a passage to the effect that Harvey, the discoverer of the circulation of the blood, was saved from drowning in the Straits of Dover through the agency of a warning vision seen by the governor of Dover in a dream.

Mercy and Truth.—In the April number Dr. Martyn Clark writes on baptisms at Amritsar in the Punjab, and Dr. Howard Cook contributes an illustrated description of a visit to Toro in East Africa. It is announced that the Archbishop of Canterbury will preside at the annual meeting of the Medical Mission Auxiliary in St. James's Hall on April 30th.

New Inventions.

JACKET FOR SPINAL CARIES AND ANGULAR CURVATURE.

I HAVE had this jacket made for the treatment of a case of angular curvature of the spine coming on in adult life and involving the eighth and ninth dorsal vertebræ. After several months' confinement to his room the patient recovered so far that with the help of this jacket he was able to resume his occupation. The illustration shows the jacket as it would appear if flattened out and looked at from behind. The shaded part is of leather—stout sole leather dipped for a minute or two in boiling water and moulded to the body by firm bandaging. The four thick black lines represent uprights made of bamboo or other strong light wood and fastened to the leather. The hinder pair (B B) extend below the leather and rest on the chair when the wearer sits



upright, thus giving a real support to the crutch in the axilla. To the front pair are attached two arm-rests (A A). These are of steel encased in thick leather and are when thus covered with leather about six inches long and an inch and a half wide. They revolve horizontally round a bit of steel attached to the bamboo, and are so made that they can be taken off easily. The jacket is in halves, jointed below over the sacrum with a leather hinge (D); above there is an open space (O) at the upper part of the back, across which loops of cane are tightly drawn to support the back. In front the jacket reaches barely to the anterior superior iliac spine on either side, and is held in place by leather straps across the abdomen. It should be well rounded off in front, or it will give pain on flexure of the thigh; and laterally it should reach to the great trochanters. There is a window on each side for coolness. A strap is carried across the front of the chest, not tightly for chest fixation, but to prevent the arms slipping forward over the front of the axillary crutches. If drawn tight this strap interferes with the breathing. I secure chest fixation and close adjustment of the upper part of the jacket to the body by carrying a loop of flannel bandage across each shoulder from the upper corner of the window of one side behind to that of the other side in front. This also checks the tendency of the jacket to slew round to the right with the movements of the body. The axillary crutch is made by bending over the edge of the leather on itself when moulding it to the body. On the top of this I fasten a bit of pneumatic bicycle tyre filled with water and tied with twine at both ends. This gives great comfort, for the support of this crutch is very real, and chafing is apt to result. The crutch must not be too thick or it will press against the inner side of the arm and give pain. The jacket is worn over the flannel shirt and drawers and the trousers are suspended from one of its straps. The waistcoat is slit up on either side over the anterior bamboo upright to let through the arm-rest. The arm-rest is covered and concealed by the coat-flap. Points in its favour are: (1) the arm-rests enable the weight of the upper part of the body to be swung through the shoulder from the elbows; (2) the posterior uprights resting on the seat give real support and are of special service, say, in pulling on boots or holding in a hard-mouthed pony; and (3) it is cool, cleanly, and efficient, and is easily made.

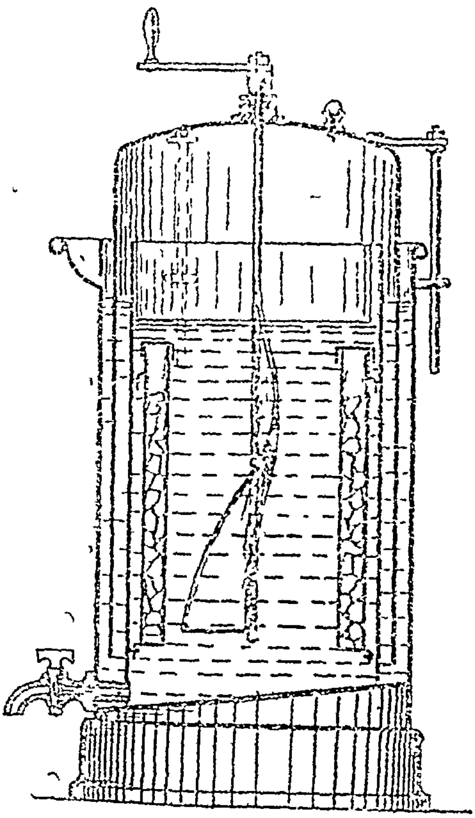
T. LAW GASKIN, M.R C S Eng , L R C.P. Edin.
St Michael's, Barbados, West Indies

THE "POISONING PREVENTER" LABEL.

THIS label has a vertical column of plainly-printed figures numbered from above downwards—say, from 1 to 12, corresponding to the successive doses of medicine contained in the bottle to which it is affixed. Opposite each of these figures there are spaces for writing down the hour and minute at which a dose is given. In this way many of the possibilities of error in the administration of medicines should be removed. The label is printed in various colours and measurements to suit standard bottles; and it is fixed on the narrower side of a bottle, with its marks to coincide with those on the bottle; or it can be used on a standard bottle which has no divisions. The label, which is patented, may be obtained from Mr. C. J. Whistler Hanson, 24, Harrington-square, London, N.W.

RECEPTACLE FOR MILK OR OTHER LIQUIDS.

THE illustration represents a new receptacle for holding milk or other liquids intended for human consumption. It is adapted for use alike in hospitals and in private houses, and is so constructed that the access of dust, flies, and other sources of contamination is entirely prevented, while at the same time the withdrawal of the contents is easy and cooling by means of ice is provided for. The apparatus is made of tinned sheet iron, zinc, copper, or earthenware. The cylindrical container has a double casing, with water in the annular space between the inner and the outer wall. Inside the container there are removeable tubular vessels which can be filled with ice when required; two of these are shown in the illustration. A cylindrical bell shaped cover dips into the water. A stirrer passing through the closed end of the bell and turned by means of a handle outside serves to mix the contents uniformly. When admission of air is required it is filtered by passing through sterilised felt contained in an air-tap outside the closed end of the bell. The receptacle is made in sizes to hold from a quart to 100 gallons. The patentee and manufacturer is Mr. W. T. Lawson, Hill Crest, Beech Lanes, Birmingham.



HEALTH OF ST. IVES.—Mr. J. M. Nicholls, the medical officer of health of St. Ives, Cornwall, in his annual report for 1900, states that the birth-rate was equal to 31·62 per 1000, as compared with 34·62 per 1000 in 1899. The death-rate was 18 67 per 1000, as compared with 15 75 per 1000 in 1899. Seven deaths were from zymotic diseases, including four from diphtheria and two from diarrhœa. The infant mortality was at the rate of 186 deaths per 1000 births. 49 cases of infectious diseases were notified, including eight of diphtheria, 10 of typhoid fever (in all of which the patients recovered), four of continued fever, and 22 of erysipelas.

HEALTH OF SIDMOUTH.—Dr. T. H. S. Pullin, the medical officer of health of Sidmouth, Devon, in his annual report for 1900 states that during the year the birth-rate was 17 per 1000. The death-rate, if the deaths of 12 visitors to the town be included, was 15·25 per 1000; excluding the visitors it was 12 25 per 1000. The zymotic death rate was *nil*, being the fifth consecutive year without a death from one of the zymotic diseases. Only one case of infectious disease (enteric fever) was notified during the 12 months, the disease having been contracted abroad. The previous case of enteric fever was notified one year previously, and Mr. Pullin adds that only one death from this disease has been registered in the district during the past 20 years.

THE LANCET.

LONDON: SATURDAY, APRIL 13, 1901.

The Sanitary Condition of Windsor.

WINDSOR furnishes an example of the fact that the light of public opinion is apt to beat in a fierce fashion about a throne. Since the days of the Conqueror the town has figured prominently in the annals of the nation, and there are indications that under King EDWARD VII. Windsor will not lose favour as a Royal residence. In years not long gone by many pages of THE LANCET have been devoted to a consideration of the sanitary maladministration of the Windsor Corporation, and more recently (in THE LANCET of Dec. 18th, 1900, p. 1591) we drew attention in a leading article to a report made by Dr. H. T. BULSTRODE, one of the medical inspectors of the Local Government Board, upon this same old theme. This report attracted no little attention in the lay press, and the town council of Windsor have, it appears, devoted many sittings, much time, and some abuse to its consideration. The report revealed a far from creditable state of affairs, but it is not now our intention to revert to it in this sense.

Whatever may have been the forces which have kept that report prominently before the town council—and in a case of this sort there are obviously many channels through which influence might have been exerted—it is a matter of much satisfaction to us to be able to record that the corporation have now faced the issue in a truly commendable spirit, and that they have apparently persuaded themselves that the true interests of the town of Windsor would best be served by putting their house in order. According to the *Windsor Chronicle* of March 22nd a special committee, which has for some months past been considering the answer which should be given to the Local Government Board report, have recently presented a draft of their conclusions to the corporation and a discussion which occupied some two and a half hours ensued. Some exception was taken to the fact that the introductory portion of the Government report went as far back as 1858, the council urging that the sins of the forefathers should not be visited upon the children, but Councillor BROWN PORTER disposed of this objection by the pointed remark, "There are forefathers present," implying, we gather, that all those who were of the council in 1858 have not even yet retired therefrom.

The report of the committee, as amended by the town council, shows signs of proving to be a very reasonable and healthy document. Action has been taken in respect of practically all the points raised in the inspector's report, and in the matter of the housing of the poor of Windsor it is gratifying to read that certain areas have been declared to be "unhealthy areas" within the meaning of the Housing of the Working Classes Acts. The surveyor has been instructed to prepare a scheme with a view to demolish the whole of the western side of River-street, a street which has for years figured prominently in the annals of Windsor, and to which many references will be found in our columns. Dwellings for the working-classes are to be erected on the site. Action is also apparently to be taken with respect to certain "obstructive buildings." As regards the sanitary condition of "Victoria cottages," the dwellings which through the complaint of Mr. STONEHAM of the Berkshire County Council were instrumental in bringing about the Local Government Board inquiry, it must be a source of much satisfaction to the inhabitants to know that "the whole of the roofs and ceilings have been put into a good state of repair." The by-laws and regulations are being rigorously enforced, and such as are out of date are to be modernised. The medical officer of health has been afforded free entry to the waterworks, and samples of water from the different wells are taken under his supervision for chemical and bacteriological examination. The change which has come over the spirit of administration in Windsor is indeed as remarkable as it must be welcome. In the words of the *Windsor Chronicle*, "For the condition of previous years the apathetic burgesses were largely responsible, but recently they have aroused themselves to return men to the council possessed with a real and serious desire to administer the affairs of the town for the general welfare."

In our view, too, no small amount of the improvement is due to the vigorous action of the local press and to the persistent support which they have accorded to sanitary reformers, such as Councillor RYLAND, who, if we may judge by the local reports, has for a long time occupied a position in the council of one crying in the wilderness. The advice, too, which was given by Councillor Sir J. SOUNDY that the council "would do their best to remedy the evils of the past" was well worthy of the support which it has received. It is clear that Dr. BULSTRODE'S report had effected good both to the town council as a public body as well as to the town as a whole, and we must ourselves confess to a feeling of satisfaction that the reforms which we have for so long advocated in these pages are now in a fair way to be carried into effect.

The Lettsomian Lectures.

THE subject chosen by Dr. MITCHELL BRUCE for the Lettsomian Lectures this year was Diseases and Disorders of the Heart and Arteries in Middle and Advanced Life, and he has earned the thanks not only of the Medical Society of London but of the profession at large by selecting for consideration a matter which will interest all practitioners and by dealing with it in such a practical manner. Lectures and papers on the scientific aspect of disease are more frequent than those which deal with the more practical side, and these lectures will be welcomed accordingly as being the outcome of exceptional experience and close and careful study of the clinical material which has come before the lecturer in his private and hospital practice.

Dr. MITCHELL BRUCE'S subject will at once arrest attention, for the problem of disorders of the heart as set forth in the title of the lectures may be said to come before the family practitioner during every hour of his work, and to present difficulties and to create a sense of responsibility or even anxiety which cannot be over-estimated. The investigation of such cases forms an interesting study, and, as the lecturer rightly points out, the answer to the many questions which arise can be given only after an analysis of a considerable number of instances of the kind in respect of their origin, their clinical character and course, and the result. We further entirely agree with him when he says, "Our attention lately has been too much confined to the pathological states of the heart and arteries and too little directed to the causes which produce them." For instance, "arterial *sclerosis*" is an ordinary diagnosis in everyday practice, as if it were sufficient for purposes of prognosis and treatment to have determined that the radial artery is thicker, larger, and more dense than normal, without considering the actual nature of the pathological change, whether due to strain, syphilitic, gouty, or otherwise. The term "*dilatation of the heart*," also, is apt to be employed as if the enlargement of the cardiac chamber or chambers was a distinct disease rather than the result of varying morbid conditions.

Before considering the influences and circumstances which disorder or damage the circulation in middle and advanced life Dr. MITCHELL BRUCE drew attention to the normal or natural state of the heart and arteries after 40 years of age, and showed that as life advances certain changes take place which must not be *considered* as pathological, and that the term "vascular *degeneration*" applied to such processes is misleading. There are, however, many forces that threaten the heart and arteries which are peculiar to that period of life, such as physical stress, nervous influences, and disturbances of metabolism, including gout. These singly or conjointly may bring about such cardiovascular changes as may greatly affect the patient's general health and necessitate a remodelling of his mode of life. There can be no doubt that the last named (disturbances of metabolism) are by far the most potent factors concerned, at any rate amongst the middle and higher classes in this country. The period of life referred to frequently brings with it comparative relaxation from work and a disposition to substitute quiet or even passive for active exercise, and whilst the demands of growth and development in the alimentary system have greatly declined the pleasures of the table and ease generally are too often indulged in. The results are functional disorders of the liver, gout in regular or irregular forms, gravel, and the many associated disorders of the muscular, nervous, and other systems. From various causes, as Dr. MITCHELL BRUCE aptly points out, the arterial tension rises, consequently the heart-vessels and kidneys are kept under incessant strain and, like other organs working under strain in the gouty subject, they are the readiest to suffer. There are other causes which may arise to threaten the heart in this stage of life, such as syphilis, acute diseases, emphysema, and chronic Bright's disease; these are duly commented on in the lectures. Special stress was laid on the "tobacco-heart" and the heart in alcoholism. These were dwelt upon in order to bring home an important consideration which is apt to be overlooked in diagnosis and still more in treatment—namely, that whether in an ordinary senile heart or in a heart that is the seat of chronic valvular disease or in arterial degeneration something more than the pathological changes have in many instances to be regarded—usually some entirely adventitious disturbance which alone calls for treatment, such as indigestion, flatulence, worry, bronchial catarrh, or it may be free indulgence in tobacco, tea, or coffee. It will be within the experience of most practitioners to have attended patients suffering from a moderate degree of cardiac dilatation in whom the symptoms and characters of the pulse are out of proportion to the amount of disease as estimated by physical examination—in many such instances on inquiry excessive indulgence in tobacco will be admitted, and if this can be controlled general improvement will soon be manifested. Not only is this the case at the period of life alluded to by Dr. MITCHELL BRUCE, but in younger men also similar symptoms due to the same cause are met with. Many subalterns and yeomen who have been invalided home from Africa have found that former indulgence in cigarettes had rendered them less able to contend against the peculiarities of the South African climate and the excitements of a campaign than were their fellows who had been more *moderate in this respect*.

Dr. MITCHELL BRUCE'S remarks on prognosis and treatment will well repay careful perusal. In order to arrive at a correct understanding on these points as full and correct a diagnosis as possible is essential—a purely anatomical diagnosis is *insufficient*, but as far as possible the *etiology* of the conditions must be sought out. In order to ascertain this in addition to the onset and progress of the symptoms it will probably be necessary to inquire into the previous history of the patient from childhood upwards. We have not space to comment fully on his valuable hints as to the interpretation of cardiac murmurs and symptoms, or on the indications for treatment which he so clearly lays down. He points out that morbific influences can be more easily controlled than pathological processes can be altered, and, what is of equal or greater importance, a knowledge of the causes of disease often enables the practitioner to prevent what he could not possibly cure; therefore, in respect to treatment also etiology is all-important.

◆

The Primate and Medical Authority.

AMONG the present forces of the country must be reckoned the Primate. Even when we do not altogether agree with him, which we are glad to think does not often occur, we listen to him with the respect due to a man of fourscore years who displays unabated energy and an ever-green interest in human progress. It is a great thing for Christianity that the head of the Anglican Church should be so strong in his physical and intellectual equipment. We all know that the Primate is a rigid abstainer and that he uses his *great* position in the Church and in the State for the repression, not only of drunkenness, but of the drinking of alcohol in all forms. And whether he is addressing a popular meeting at a Church Congress or that most unemotional assembly the House of Lords he shows the courage of his opinions and by his personal force *does* much to secure a hearing where less distinguished or less able speakers would fail. Some may think that he would do more good by identifying himself with a less uncompromising set of opinions than those which he is known to hold, and by advocating a more practicable reform than the suppression of the trade in alcoholic drink. But it is a part of his enormous influence to be thorough.

Dr. TEMPLE made an interesting speech recently at the London Temperance Hospital in which he enunciated the principles on which he would proceed if overtaken by an illness which induced his physician to order him to take alcohol. He said that he was close upon 80 years of age and did not think that they would find many men of 80 years able to do such work as he did. Any man who achieves the age of 80 years, under conditions of health and activity, is right to congratulate himself on his vigour, but, of course, the Primate is too well informed not to know that many octogenarians as active as himself are not total abstainers. He went on to say—

> "He did not profess now that if he were in the hands of a physician and he ordered alcohol he would refuse to take it. If he did not trust his physician he would go to another, but physicians now were different from what they were. If the patient now said that he was a total abstainer the physician generally accommodated himself to the position and permitted him to remain a total abstainer. ...... The medical profession did not try to stop total abstinence by force and say they could not bring people to health without alcohol."

These words should be weighed by over-zealous abstainers. They imply that in the opinion of Dr. TEMPLE a trusted physician is to be trusted to prescribe alcohol. We should have been surprised if his Grace had given the sanction of his authority to any other doctrine, and we trust that his words will serve as a lesson to those extreme teetotalers who will not allow any value to the use of alcohol and who presume in disease to think their judgment better than that of their medical man.

The Primate's words should be weighed, too, by medical men, who should apply to the prescription of alcohol the same care which they apply to the prescription of digitalis or other drugs. The habitual use of alcohol may be right or wrong, but the authority of the physician must not be invoked for it when it has been merely prescribed in an emergency of disease. There are few intelligent teetotalers who will not, like the Archbishop, accept the authority of the physician in the question of alcohol. The acceptance will be based by them on faith and medical men will best preserve and promote the true use of alcohol by *studying it in all its bearings* in each *individual case* and by prescribing it with proper limitations of time and dose. In a sense most hospitals now are temperance hospitals, for the medical staffs of all of them are alive to the objections—medical, moral, and financial—to giving alcohol to hospital cases where it is not needed. Some of this change of view may be due to the influence of the London Temperance Hospital. But more of it is due, we venture to suggest, to a truer estimate of the scientific value of alcohol, to a comprehension of the possibility of dispensing with it advantageously in many of the cases of disease which occupy hospital beds, and to a growing desire on the part of medical men to use their authority in the promotion of wiser views among the ignorant and the poor.

Annotations.

"Ne quid nimis."

HELION: £200 PER CUBIC FOOT.

No one has ever suggested that helion, the element which until recently was thought to exist in the sun but which was discovered in the gases contained in certain minerals by Professor Ramsay, would be of any practical utility. At present, moreover, it is not likely to be, for it is the costliest of all elements. The method now being pursued for capturing this element in workable quantity shows that its separation and concentration involves an enormous expense and the helion obtained costs about £200 per cubic foot. The same amount of money would at the present time purchase over one million cubic feet of coal gas. The price of helion, therefore, at present is more than a million times that of coal gas. The element occurs in the gases evolved in the hot mineral springs at Bath, and, as our own analyses have shown, it *is associated with carbonic acid gas, oxygen, nitrogen, and* argon. Professor Dewar is engaged in collecting these gases in large quantity and separating the constituents by means of excessively low temperatures—that is, by freezing. As we have already announced, he has been able to liquefy helion by employing liquid hydrogen as the refrigerant. Doubtless the present costly research is being undertaken, amongst other things, in order to see whether helion can be solidified. To gain this result temperature will cease to play a part, for absolute zero will have to be reached. The work of investigation is carried on under great difficulty and it is not without its dangers. The intense dismay at losing, say, five cubic feet of gas just when success is promised may be imagined. Thus the destruction of the containing vessel during the experiments would mean £1000 irretrievably gone. But the true value of research as often resides in negative as in positive results.

THE MARCH OF CLEANLINESS.

FIFTY years ago, when the Great Exhibition in Hyde Park was about to open or had lately opened, the perennial jester *Mr. Punch* waxed very satirical at the expense of our continental visitors. In his opinion their corporeal cleanliness left much to be desired, and accordingly he endeavoured to induce a remedy by means of ridicule. One of John Leech's inimitable "cuts" which saw the light about that period represented a formidable row of washstands drawn up with military regularity at the border of a public thoroughfare, each washstand, with ewers and basins all complete, being under the charge of a resplendent flunkey who, towel over arm, was inviting all and sundry to wash and to be clean. "Hold! Alfonzo," exclaims a highly bestocked and grimy *foreigner as*, struck with amazement, he stops short to gaze at the unwonted spectacle, "what is it then, that machine over there?" "My faith," replies his friend, raising his shoulders to his ears and extending two conspicuously dirty palms, "it is truly a droll affair, but I do not know." *Mr. Punch's* wit was justifiable, but its objects might have retorted with a *tu quoque*. Fifty years ago our man-in-the-street was far from being the well and regularly washed individual that he now is. The matutinal "tub" had not as yet become the daily institution that the introduction of baths into second class modern houses has helped to render it; and amongst the well-dressed, and therefore respectable, members of the community there were many persons of both sexes who habitually neglected from one year's end to another the ablution of the covered portions of their bodies. But whatever may have been the condition of things on the continent with regard to corporeal cleanliness when the last century was passing middle age, it is quite clear that, thanks mainly to antisepticism, educated foreigners are nowadays fully alive to its importance. Writing in the *Archives de Médecine Navale* for January last Dr. Lassabatie expresses himself to the following effect with reference to an ambulant *lavabo* which he has had constructed for use in the wards of the naval hospital at Rochefort: "Clean hands being just as imperious a necessity in the dresser and nurse as in the operator the means of cleansing them should always be available with the least possible expenditure of time and trouble. All persons whose duty involves contact with patients, medical as well as surgical, should therefore be able to render their hands aseptic without being obliged to run backwards and forwards in search of the needful appliances." In constructing his *lavabo* Dr. Lassabatie's first thought was efficiency, but he was likewise in a measure governed by the inevitable question of expense. *Moveable washstands are turned out in abundance* by the purveyors of sanitary requisites, but since many of them are unsuitable for various reasons and all are costly the inventor was impelled to institute the present experiment, which has proved to be a complete success. The fact that from motives of economy the Rochefort appliance has been constructed of wood does certainly add considerably to its heaviness, not only actually but also in an æsthetic sense, but no doubt it will be possible to devise a similar article with a metal skeleton which will be far lighter and more elegant in appearance. Wherever practicable the woodwork has been protected by glass panels and great care and ingenuity have also been exhibited in avoiding the occurrence of nooks and corners where dust could accumulate and microbes find a lodgment. Each *lavabo* supports two 18-inch basins of an oval shape, and four glass receptacles for aseptic fluids, which can only be set flowing by pressure of the foot. There are no plugs or stop-cocks for use by the hand. The whole apparatus with its fittings, which include also ample accommodation for dressing materials, costs about £6 (150 francs). It is a firm and substantial structure, but can be moved about with great ease and also quite noiselessly. Dr. Lassabatie sums up the advantages of his invention in the following terms: "The mobility of all the shelves, the rounded framework and supports, from which all angles have been, so to speak, completely suppressed, the exceeding facility with which the different fittings—such as basins, soap-dishes, bottles, &c.—can be removed for cleansing purposes, all these points combine in the production of a convenient piece of surgical furniture which answers to every requirement of the most scrupulous cleanliness. Thanks to it the surgeon throughout the whole of his visit has close beside him all that he requires to render his hands aseptic, while at the same time he is able to assure himself that the success of his labours will not be jeopardised by neglectful students or attendants."

THE METROPOLITAN WATER-SUPPLY.

THE February report of the Water Examiner to the Local Government Board has recently been published. It consists, as usual, chiefly of matter supplied by the engineers and chemists of the water companies. Dr. T. E. Thorpe, the Government analyst, reports that the water supplied by the Kent Company was of great organic purity and that that supplied by the New River Company was of very good quality. The only samples of water of which full analyses were made were taken on Feb. 18th, when the amount of organic impurity was found to be greatest in the case of the water of the East London Company, which was more than five times greater than that of the Kent Company. The water derived from the Thames was of "fair quality" throughout the month. This is faint praise. The East London Company's water was "inferior to the Thames water." The processes of purification adopted by some of the metropolitan water companies are obviously inadequate.

THE DESIRABILITY OF SPECIAL HOSPITALS FOR HIP-JOINT DISEASE IN CHILDREN.

DR. GRANT ANDREW read a paper before the Pathological and Clinical Society of Glasgow last December, the main object of which was to impress on the medical profession of Glasgow the very urgent need there is for the establishment in that city of a special hospital for the treatment of disease of the hip-joint in children. There are few diseases in which neglect, while not leading immediately to death, will cause more prolonged misery and discomfort than tuberculous disease of the hip-joint, and there are few in which timely treatment will more fully repay the care of the surgeon. For a truly successful result time is needed. The joint must be kept at rest with the aid of suitable apparatus for weeks, for months, and sometimes even for years, until the tuberculous disease subsides and the joint returns more or less completely to its normal state. If the disease has lasted only a short time, complete rest for a few months may restore the hip-joint to perfect health and with free mobility in every direction. If the period during which the disease has acted be longer, longer also will be the time during which the joint must be kept at rest, and the recovery which ultimately ensues will be by no means so perfect as in a less advanced case. When a case occurs in a child belonging to a family which can supply him or her with adequate care and nursing satisfactory results can be obtained, but the disease is by far most common among the class of patients who attend the out-patient department of hospitals, and the home arrangements in these cases are nearly always utterly unsuitable for a child with disease of the hip-joint. However willing the mother may be, the limited accommodation and absence of appliances make it absolutely useless to attempt to undertake the treatment in such houses and under such conditions. Therefore the child's admission into a hospital becomes absolutely necessary. For the treatment of the disease, when the child has been admitted, there are two chief methods. When the operation of excision of joints was introduced, and especially after the powerful advocacy of Fergusson, the head of the femur was more and more frequently excised, often at an early stage of the disease. In a large proportion of the cases the tuberculous affection was indeed stayed, but often a comparatively useless limb was left, so that in many instances the patient was condemned to carry about for the rest of his life a limb which had been rendered valueless by the removal of the head of the femur and the consequent destruction of the hip-joint. It became slowly recognised by many that such results as these were only too frequent, and though it was found that excision in some cases was followed by a rapid recovery with a useful limb, yet on the whole the results were no better, and in many cases worse, than could be obtained by less energetic measures. Thus there arose a reaction against the indiscriminate practice of excision and a more rational, if more tedious, treatment by rest with extension received ever-increasing support. It was found that with prolonged rest a large proportion of the cases of hip disease would recover without any operative interference beyond the opening of an abscess, and if extension were combined with this prolonged rest the ultimate position of the limb was all that could be desired, even though the joint might be ankylosed. There was also a minimum of shortening. For this prolonged rest, however, the wards of a general hospital are by no means well suited. The pressure on the accommodation of these hospitals entirely negatives the devotion of a number of beds to such tedious cases as those with disease of the hip, and there is therefore in many cases a compulsion to adopt more energetic measures than would be employed if the surgeon could have felt justified in keeping the patient for an indefinite period in hospital. In London the feeling that these cases should have the opportunity of resting for prolonged periods gave rise to the establishment of the Alexandra Hospital for disease of the hip where a certain number of children can be admitted and where they are kept until the disease has subsided. In some instances the period during which the child is an in-patient must be measured by years. The demand for admission, however, far exceeds the accommodation available, and so the others are treated as out-patients and nurses from the hospital visit them at their homes to fix and to adjust the extension apparatus supplied to the patients. It is the establishment in Glasgow of such an institution as this that Dr. Andrew advocates and its value must be apparent to all who carefully study the subject. All that we have said as to the desirability of prolonged rest in hip disease applies equally to tuberculous disease of the vertebral column. In the case of that disease, also, the exigencies of space compel the surgeon to treat as an out-patient many a case which would have derived signal benefit from a more prolonged period of rest. Therefore for spinal caries also the establishment of institutions is desirable where the patient may remain until recovery occurs. If general hospitals could afford to devote a certain number of beds to these cases there would be no need for any new hospital, but as the accommodation in most hospitals is already insufficient for the needs of the urgent cases coming to them it is hopeless to expect that any beds can be set aside, and therefore the need of a special hospital for this purpose becomes evident. As both hip-joint disease and caries of the spine are nearly always tuberculous, any hospital intended specially for them should certainly be adapted for the open-air treatment of tuberculosis, and placed in a suitable position and suitably arranged and constructed. The centre of a large city is by no means an ideal situation for such a hospital; rather it should be placed in the open country. Managed in the right way such an institution can prove of incalculable value to the patients admitted into it and will assist in the general advancement of surgical knowledge.

ALCOHOL AND ITS EFFECTS UPON THE NERVOUS SYSTEM.

AN important discussion on this subject took place at the New York Academy of Medicine on March 7th last, when various eminent physicians recorded their observations and experiences. Dr. Charles L. Dana in introducing the subject regarded it both in its practical and scientific aspects. He based his observations on the careful study of 350 cases of alcoholism at the Bellevue Hospital. The most frequent form of alcoholism was periodical dipsomania and the next was pseudo-dipsomania. Over two-thirds of the total number of patients had begun to "drink" before the age of 20 years, and all of them before 30 years. "As a rule," said Dr. Dana, "the drunkard did not live more than 15 years, and it was seldom that the human organism could outlive more than 3000 intoxications." Death in alcoholics usually occurred from pneumonia, meningitis, delirium tremens, alcoholic insanity, or dementia. Dr. Herman Biggs stated that in 15 years the cases he had seen of drink were those resulting from indulgence in whisky and beer, the majority of patients taking two or three glasses of whisky and four or five pints of beer daily. In these cases cirrhosis of the liver was relatively less frequent, while the degenerative effects, such as disease of the heart, blood-vessels, and kidneys, were much more common. Looking over the records of the Health Department of New York he found a short time ago that whereas during 20 years the population had increased by from 50 to 60 per cent. the number of deaths recorded as due to degenerative diseases of the heart and blood-vessels—most frequently of alcoholic origin—had increased by nearly 150 per cent. and almost the same was true of renal disease. The excessive consumption of lager beer in the United States, as in Germany, produced renal disease and cerebral accidents. Professor M. Allen Starr said that of the various alcoholic beverages champagne produced exhilaration of spirits and stimulation of the flow of ideas, while Burgundy made a person think more slowly and by no means added to the feeling of conviviality. Alcohol seemed to affect the brain more than it did other parts of the nervous system. There was practically no known disease of the spinal cord produced by alcoholism, but both encephalopathy and peripheral neuritis were common. The pathology of alcoholic insanity was to day clear and characteristic. The researches of various observers, especially Andriezen and Berkley, showed that the alcoholic poison produced destruction of the epidendritic "gemmules" belonging to the nerve-cells of the brain, thus rendering the organ relatively incapable of receiving impulses, weakening reaction time, and producing loss of memory in general, features which were characteristic of nearly all forms of chronic alcoholism The neurasthenia of the chronic drunkard was dependent on degenerative changes in the protoplasm of his brain-cells. Such persons were little open to medical treatment but were more susceptible to social and religious influences. He was of opinion that "any measure of a religious or social character that could be brought to bear upon the individual was well worthy of trial. ..... The only reformed drunkards of whom he had knowledge were those who had been saved not through medical but through religious influence." Dr. Alexander Lambert pointed out the importance of heredity and quoted statistics to show the abnormally large proportion of defective and diseased children in the progeny of alcoholic parents. Dr. James Ewing referred to the pathological changes in the brain associated with alcoholic delirium tremens, and stated that the discoveries made by the aid of Golgi's and Nissl's methods demonstrated a close analogy to the brain lesions of sunstroke, tetanus, and hydrophobia. From necropsies made at various hospitals in New York it appeared that the visceral lesions of alcoholic origin were more prominent than those of tuberculosis or of syphilis. Dr. S. A. Knopf pointed out that alcoholism was a pronounced factor in predisposing towards tuberculosis. Statistics showed that 25 per cent. of children committed to sanatoria for tuberculous diseases had alcoholic parents. Dr. G. L. Peabody said that intemperance often arose from ignorance or from the want of a stimulant to relieve depression and fatigue after the day's work. Sherry wine was a flavoured spirit containing from 35 to 40 per cent. of alcohol, and many of the so-called "bitters" in the market recommended as a substitute for alcohol and as conducive to temperance contained from 40 to 50 per cent. of alcohol. This should be made known to ladies who took them under the misapprehension that they were non alcoholic beverages.

MILL-OWNERS AND RIVERS.

MR. JUSTICE DAY recently gave judgment in a case heard by him at Exeter which is of interest to those who view with consternation the pollution of our rivers, whether by domestic sewage or by the fouling incidental to certain manufactures. In Willcocks v. Hamlyn Brothers, the case referred to, the plaintiffs sought and obtained an injunction against the defendents for diminishing their supply of water. Both are mill-owners at Buckfastleigh, a small town in South Devon, situated on the Dart, some few miles above

Totnes, and also, of course, above Dartmouth. The defendants in the course of their manufacture fouled the river, and in connexion with a new sewerage scheme were requested by the sanitary authority to divert all water so polluted from the river, making use of the sewerage system for its disposal. This they did, but although by repairing an old leat they endeavoured to make good the amount of water thus taken from the river they failed to do so, and the plaintiffs, who needed a full supply of water as a motive power and for other purposes, complained. Mr. Justice Day in giving judgment approved, as he could hardly have failed to do, of the action of the sanitary authority in forbidding the return of polluted water to the stream, but at the same time declared the right of the riparian owners below the defendants to have their due supply of water undiminished. The result of this appears to be that manufacturers can be prevented from fouling rivers and that manufacturers so prevented who need a large quantity of water for the carrying on of their works must arrange matters so that they may obtain it without depriving others of that which they are entitled to have unimpaired both in quantity and quality. Very many persons besides the successful plaintiffs in the action to which we have called attention must be directly interested in the maintaining of the purity and the volume of the waters of the Dart at every point at which either can be assailed.

PRUS'S METHOD OF RESUSCITATION IN CHLOROFORM TOXÆMIA.

DR. FREYBERGER,[1] in *Treatment* for January, 1901, p. 785, gives a very interesting *résumé* of a method of which we as yet know very little. The patient upon whom it was tried was a labourer, aged 27 years, about to be operated upon for severe sciatica. He was presumably healthy. Chloroform was administered at 8 A.M. from an Esmarch's mask. Slight excitement was met with, but in 15 minutes complete anæsthesia, it is stated, was established; the pupils were contracted and the respiration was normal. However, when the incision over the sciatic nerve was made struggling occurred. This seems to point to the fact that "complete anæsthesia" at least was not present. More chloroform was given, but as soon as a few inhalations had been taken "asphyxia" developed. This was recovered from after the employment of tongue traction and artificial respiration. Four drachms of chloroform had up to this point been given and no more was subsequently used. The operation was proceeded with, but after a few minutes respiration again failed and this time the measures for resuscitation were unsuccessful in relieving the asphyxia. Ten minutes having been spent in fruitless attempts to resuscitate the patient the trachea was opened and air was blown into the lungs through an indiarubber tube. This measure was without effect. Prus's cardiac massage was then decided upon and was carried out in the following manner. An incision was made in the skin and muscles obliquely, the flap having its base in the left mammary line and its borders being parallel to the third and fifth ribs and left sternal edge. The third and fourth ribs were cut close to the sternum and two and a half inches were resected in the flap. In doing this the left pleural cavity had been accidentally opened. The hand was then introduced and the heart with the pericardium still intact was grasped. No heart movements were felt. Rhythmic compressions of the heart were systematically practised partly by grasping the viscus and partly by pressing it against the back of the sternum. After a short time slight spontaneous contractions were felt. The perflation of the lungs was maintained throughout. The spontaneous cardiac movements gradually increased, but no spontaneous respiration was initiated until half an hour after the artificial cardiac compression had been commenced. They were at first feeble and infrequent, and it was not until two and a half hours after the failure of respiration that the patient was able to take more than 10 consecutive respirations. At the end of three hours he was, however, breathing deeply and without effort. At this point both cardiac compression and artificial respiration were discontinued. He was absolutely unconscious and insensitive; all the wounds were sewn up and dressed without exciting any sign of consciousness or sense. Four hours from the commencement of the inhalation respiration became again difficult and after a few minutes completely ceased. The final phenomena of this most curious and, we believe, unique case are best given in Dr. Freyberger's own words: "From this until death—that is, from midday until 8 P.M.—he drew not a single breath, but his heart continued to beat with sustained force for more than seven hours before its strength began to fail." It was beating per minute. The patient throughout all this period did not regain consciousness. The pupils did not react to light and were contracted. The radial pulse was imperceptible all the time, but there was visible venous pulsation in the neck. It is stated that after the final respiratory failure the stomach and intestines became atonic and distended with gas and that "the intestinal odour" was detected in the air forced out of the lungs in the process of artificial respiration. The temperature of the body was fairly maintained, falling slightly; after eight hours it was 98° F. in the rectum and after 11½ hours 94°. Although every measure likely to restore respiration was tried all failed. The necropsy revealed that the right lung had firm adhesions to the chest wall, while there was pneumothorax on the left owing to the accidental wound in the pleura. A possible cause of death is suggested—viz., that owing to bad ventilation of the room the stove allowed phosgene gas to be formed from the chloroform (four drachms) which accumulated and poisoned the patient. In controversion of such a theory it must be remembered that it is well known that the operator, his assistants, and the nurses as a rule are more affected by this poison than is the patient, and in the case in point it is expressly stated that no one even noticed the suffocating fumes which are at once detected when phosgene gas is present in a room. Furthermore, the small quantity of chloroform evaporated renders this view highly improbable. The more likely cause seems to us to be the artificial pneumothorax resulting from the wound in the left pleura, which, associated with the adherent right lung, must have seriously interfered with respiration. Even this theory is not sufficient, for it appears that the respiratory movements were at fault rather than any mechanical impediment to the ventilation of the lungs, so that the medullary centre appears to have been practically rendered *hors de combat* four hours after the chloroform had ceased to be inhaled and never again to have reacted to the stimulus of perfused air which entered the lungs, and in spite of the fact that the heart was beating vigorously and automatically. It must be admitted that the case is one which defies explanation, while it affords hope that Prus's method may in suitable cases, and when resorted to earlier, restore life in cases of cardiac failure in chloroform toxæmia. The pneumothorax thus accidentally produced must be admitted to be at least an added danger, and Dr. Freyberger considers it as such, hence its avoidance in the operation required for the performance of Prus's plan of heart massage becomes a matter of great moment. Weber[2] has suggested, as Dr.

---

[1] Cf. Hospitalstidende, 4 Række, Band viii, No 47, by R. Kier-Petersen.

[2] Ueber eine neue Methode der Brustkorberöffnung zur Bloslegung des Herzens, Bericht über die Verhandlungen der Deutschen Gesellschaft für Chirurgie, Beilage zum Centralblatt für Chirurgie, 1899, Band xxvii.

Freyberger points out, a safer method of exposing the heart. He makes the following incision From the right edge of the sternum close to the insertion of the fourth rib cartilage an elliptical flap of skin and muscles is made across the sternum to the upper border of the corresponding rib on the left about a finger's breadth from the sternum. This is continued obliquely over the fourth, fifth, sixth, and seventh ribs, ending at the left costal margin. The sternum is sawn across at the level of the skin incision. The intercostals in the third space can be detached without injury to the intermammary artery. The cartilages of the fourth to the seventh ribs are cut from without inwards. The under surface of the flap being carefully freed the xiphoid is divided by a bone forceps and the flap is dissected up. It is worth noting that although normal saline solution was introduced after the final failure of respiration it was not employed in the earlier stages of the case. We think such a use of saline solution as soon as the heart's action is re established should be adopted in all cases in which a poison such as chloroform has been acting upon the nerve centres through the blood, as it certainly offers a chance of diluting the poison and of assisting the circulation. Although Prus's plan may appear heroic, yet it must be borne in mind that in the class of cases in which it is intended to be of use the danger is urgent and most grave and demands any measures, however severe, which appear to offer a reasonable chance of success.

REGULATION OF MARRIAGE IN MINNESOTA.

A MOST important problem that confronts the medical man and sanitarian is how to prevent as far as possible the perpetuation and increase of disease The sanitarian has been doing, and is doing, his part nobly in providing pure water, good drainage, and airy and well ventilated dwellings, with the result that the spread of certain maladies has been considerably checked. But unfortunately there is one—the most potent—means of disseminating disease which up to the present it has been found impossible to prevent. The marriage of diseased individuals is a very sure way of propagating and spreading a large number of deadly maladies. There can be no doubt that insanity, epilepsy, idiocy, tuberculosis, and syphilis would be very much less frequent were they not transmitted by the agency of marriage, and it would decidedly be for the welfare of the community at large if marriages between persons afflicted with any of these diseases could be hindered The facts are too notorious to need emphasising that the marriage of tuberculous individuals will result in the propagation of a progeny predisposed to the contraction of the same disease; that the union of those afflicted with epilepsy or idiocy, or who have been insane, will increase and spread these conditions to a lamentable extent; that gonorrhœa is responsible for a large proportion of women's pelvic troubles; and that syphilis is the greatest cause of abortions and still-births, besides contaminating and rendering weakly the offspring of those infected with its poison. The difficulty is to decide what steps to take to restrain marriages between persons thus affected. In Great Britain public sentiment is doubtless too strong against prohibitive legislation to anticipate any such drastic measures being enforced. In the United States, however, a large number of laymen and medical practitioners throughout the country are altogether favourably disposed to the regulation of marriages by the State Already several Bills have been introduced into different States with this end in view. North Dakota in February, 1899, passed a Bill to regulate marriage. Under this law no licence to marry is granted unless the applicants present a certificate from a board of examining physicians that they are free from infectious venereal diseases Michigan passed a law in 1899 making it a felony for any person with uncured syphilis to marry. Into the legislatures of other States resolutions have been introduced providing that persons desirous of being married must produce a medical certificate testifying to their sound health before the ceremony can be performed. But the most sweeping Bill of this description as yet brought forward is that of Minnesota This Bill, which passed the Senate of that State on March 23rd, is proposed as a measure to restrict the marriage of persons afflicted with mental or physical disorders. The measure is said to be reasonably certain to become law, and while it is aimed at the class above-named it will affect all those seeking marriage, inasmuch as a physical examination of the candidates for matrimony is a *sine quâ non.* The Bill provides that no man or woman who is epileptic, imbecile, feeble minded, or afflicted with chronic insanity shall intermarry within the State when the woman is under the age of 45 years. Any person who, not being an epileptic, marries an imbecile or one afflicted with chronic insanity or who knowingly violates this provision shall upon conviction be punished by a fine of not more than $1000 (£200) or by imprisonment in the State prison for not more than five years or by both such fine and imprisonment. Marriage licences cannot be issued unless accompanied by a certificate from a reputable physician testifying to the health of candidates for matrimony, and so far as can be judged to their good family history. The great increase in the number of inmates in the insane and imbecile asylums of Minnesota affords the strongest argument in favour of the passage of this Bill. Of course, it is more than doubtful if legislation of this nature will be found workable, and its desirability is also open to doubt. The argument of those who uphold prohibitive legislation to restrict marriages between the unfit is that some State must make a start and that if the remedy is successful others will quickly follow. The experiment of Minnesota will be watched with interest. But the old difficulty of squelching the promptings of animal nature is ever with us—"Naturam expellas furca, tamen usque recurret" And there is danger in too grandmotherly legislation.

DYSBASIA INTERMITTENS ANGIOSCLEROTICA (INTERMITTENT LAMENESS OF VASCULAR ORIGIN).

IN the *Boston Medical and Surgical Journal* of Feb. 21st Dr. James J. Putnam has published a case of this rare condition, which was first described by Charcot in 1854 and subsequently investigated by Goldflam and Erb. The subjects are persons usually past middle life After walking for from five to ten minutes they are seized with a helpless cramp-like feeling in the legs which is so severe as to render further progress impossible. After a few moments' rest they can walk again. Careful examination of the legs usually reveals signs of defective arterial supply. One or more of the pedal arteries, and even the popliteal arteries, may be pulseless, and the foot, as a consequence, cool and slightly pale, or red, or blue, according to circumstances As dysbasia intermittens sometimes occurs when the arteries are apparently pervious vasomotor spasm has also been suggested a a cause. In Charcot's first case a tumour was found compressing the popliteal artery. The occurrence of the symptoms during exertion may be due to the need of the muscles for an increased supply of blood or to the induction of vascular spasm. The disorder is chronic Considerable improvement may sometimes be produced by measures which tend to promote the circulation—iodide of potassium, warmth, prolonged galvanism with the feet resting in warm water, and cardiac tonics. An active business man, aged 70 years, came under Dr. Putnam's care. His history was exceedingly good and he showed no signs of visceral disease.

Two months previously he began to suffer from intense pain and a sense of fatigue in the legs every time he walked more than one eighth of a mile. On resting the symptoms quickly passed away. The pain was usually felt first in the left calf, then in the right, then it spread upwards omitting the knees and becoming centred in the hips, when he was compelled to stop. The heart was normal. Pulsation could be felt in only two of the four pedal arteries, and in one of these it was scarcely recognisable. Galvanism and faradaism were applied to the lower limbs while the legs were immersed in warm water, but no improvement was obtained. The patient then took to kneading his calves night and morning and began to improve. Ultimately he could walk one or even two miles without much difficulty.

THE MARTYRED PRIMROSE.

It is probably too late for this season to stay the wholesale destruction which is annually carried on in the home of the primrose. No flower is more truly native or expressive in our lowland rural scenery than this lowly gem. None is more dear to the dweller in these islands. And yet every spring witnesses cartloads, not of flowers but of whole plants, dug out of their green pastoral setting and carried to the metropolis to languish awhile in window-boxes and smoke haunted gardens and then too often to die. It is well to preserve the memory of illustrious persons and well also to adorn the grey sobriety of towns with livelier hues, but surely not at so great a sacrifice as this. Cut flowers will best fulfil the former purpose, and if it be desirable to decorate our public parks and suburban gardens this object can most properly be attained by following some intelligent and regulated method. If the present systemless havoc be allowed full licence we are likely to find that our rustic fields, which have hitherto been flower-spangled after nature's own chaste and lavish taste, are become barren of that grace. Legislation has stepped in to protect wild animal life, with the result that species once in danger of extermination have begun to thrive again. Cannot something be done by the same means and by the local resolve of county councils and landowners to prevent this barbarous uprooting of the primrose by trading collectors?

INFECTION WITH BALANTIDIUM COLI.

In the February number of the *Bulletin of the Johns Hopkins Hospital*, Dr. Richard P. Strong and Dr. W. E. Musgrave of the United States army in Manila described a case of infection with balantidium coli (Stein). This organism, they say, was probably first observed by Leeuwenhoek. Malsten, in 1857, in Stockholm, first described the parasite in a patient who suffered from painful diarrhœa. A great number of the parasites were found in the intestinal mucus and fæces, and the condition of the patient improved considerably as they decreased in number. The patient observed by Dr. Strong and Dr. Musgrave went to the Philippine Islands in December, 1899. He was perfectly well until April, 1900, when he began to have diarrhœa which continually grew worse. He entered the hospital on June 9th, and from that date up to the time of his death on August 11th he had continuous uncontrollable diarrhœa. The stools showed large numbers of flagellate infusoria, measuring from 70μ to 110μ long by 60μ to 72μ broad. The periphery was covered with fine actively motile cilia. An ectosarc and endosarc could be distinguished, and the parasite possessed the power of changing its shape. For some days before death each portion of the patient's fæces placed beneath a cover-glass contained between 100 and 200 of these infusoria. At the necropsy the mucosa of the large intestine was found to be covered with bloody mucus, beneath which the mucosa itself was very much reddened and contained a number of shallow ulcerations. Dr. Strong and Dr. Musgrave regarded the parasite as the exciting cause of the diarrhœa.

LEICESTER AND HYDROPATHY.

Some years ago[1] we commented upon the action of the Leicester Board of Guardians who tried to induce their medical officer to allow a Mr. Pickering to experiment upon the paupers under treatment in the workhouse infirmary for fever. Mr. Pickering is the exponent of a hydropathic treatment, but the medical officer, naturally enough, declined to allow the experiment—a decision which seems to have hurt the feelings of the guardians. The advocates of hydropathy are, however, to use a sporting phrase, "still going strong," and they have seized upon the opportunity afforded by the resignation of Mr. H. G. H. Monk, who was medical superintendent of the isolation hospital, to ventilate their fad afresh. The question of the appointment of a temporary medical officer was debated by the Sanitary Committee on April 3rd, but we are glad to see that the water-cure faddists' nominee was beaten by a small majority. Leicester is an odd place. If the hydropathists are so anxious to promulgate their fancy why do they not try it on themselves and not on unfortunate paupers? The present medical officer is Mr. H. R. Hancock, and we have no doubt that he will not have the slightest hesitation in ordering a patient a bath if in his opinion the patient requires one. But this is not enough for the hydropathists.

"BACTERIOLOGY AND THE MERCHANDISE MARKS ACT."

Adverting to an annotation in The Lancet of April 6th, p 1030, under the above heading, a correspondent who writes as a tobacco expert, while interested in the possibility of bacteria being turned to account in the production of fine flavours, "would point out our error of description" in this connexion. He says, and this is of course well known, that Havana produces varieties of tobacco (of flavour and texture), and he asks "if the specific microbe could be of any service why does not nature retain its original course and perfect the plants in the combined and normal environment?" He adds that "surely no plea of [a similar] environment can be considered as possible existing between the Neckarthal district or even Alsace compared with Havana" He rightly assumes that no well-informed person will deny the progressive inferiority of the Havana cigar and he asks, Is this due to the depreciation of the tobacco, the presence of the microbe, or the depreciation of the microbe? Of course, bacteria do not produce tobacco, but tobacco is nothing without being fermented and in the process of fermentation definite organisms are concerned. The bacteria produce changes in the carbohydrates, vegetable acids, and in the nicotine, evolving new substances which add very materially to the flavour and aroma of the tobacco. In the same way yeast organisms produce from grape juice an alcoholic fluid containing new substances, whence the bouquet, which make it wine. We are not referring to probabilities but to actual well-established bacteriological facts. Havana bacteria have been isolated which differ from those of the German "weed" and the inoculation of the latter with Havana bacteria has resulted in a greatly improved flavour. The analogy to wine, again, holds, for wines are improved by the inoculation of the grape juice with specific pure yeast. Of course, much depends upon the quality of the original article. As to the deterioration of the Havana cigar, even that may find explanation in bacteriological facts: the cultivation may be at fault or the soil impoverished, so that the leaf is poor in substance and unfavourable to the development of the special bacteria during fermentation which have much to do with the production of flavour and aroma. The quality of hay depends largely upon fermentation produced by a specific thermogenic organism by the operations of which the hay acquires its peculiar aromatic odour.

---

[1] The Lancet, March 6th, 1897, p 676.

THE PROSECUTION OF T. R. ALLINSON.

WE are glad to see that the police, who certainly do not move precipitately in such matters, have struck a blow at the trade in obscene literature sold under the guise of "medical works," by bringing T. R. Allinson, ex-L.R C.P. Edin., before the magistrate at the Marylebone Police-court. The result of the proceedings was that two of the summonses were adjourned *sine die*, the defendant being bound over in £250 to come up for judgment if called upon, an obligation which should act as a restraint upon his future operations; while under a third summons a large quantity of printed beastliness was ordered to be destroyed forthwith, Mr. Curtis Bennett remarking that he had read the pamphlets and that nothing more filthy could possibly have been written, and that they contained as much filth as could be compressed into a given space. The pernicious nature of Allinson's trade will have been realised by those who read that these pamphlets, sold as advice to married women, were sent to a detective who inclosed payment and described himself as a girl, 17 years of age, who had just left school, and who gave an address at a newsagent's. While congratulating the public and the medical profession on the result of this prosecution we cannot congratulate the police on their vigilance or their zeal. The trade of Allinson was not unique. We printed recently a list of books and pamphlets appearing under the title "Medical Works" in the advertisement columns of the *People*. A glance at these will show that there are others besides Allinson whose trade might well be inquired into.

INFANT MORTALITY IN RUSSIA.

SOME remarkable figures relative to infant mortality in Russia are published in the *Novosti* of March 26th, based upon statistics compiled by the Central Statistical Committee (probably with Government help) and summarised by Dr. Nikiteno. For great natural increase of population Russia stands well among the first of European countries, the birth-rate being from 37 to 46 per 1000; but unfortunately this great annual growth does not show markedly owing to the high death-rate among young children. The mortality in towns is much less than among the peasantry. Only 732 infants out of every 1000 born survive their first year. According to the returns for 1897, out of a population of 95,215,415 in the 50 governments of European Russia the number of deaths was as follows: children up to one year, 1,196,674; children up to five years, 1,858,850; children up to 15 years, 2,100,757; and adults, 991,044. According to the medical department, the deaths of infants from 1887 to 1892 were annually about 385,000 from Asiatic cholera alone. By dividing Russia into two "belts"—the north-eastern with 27 governments and the south-western with 23—detailed examination is facilitated. In the north-eastern belt for the four years 1893–1896 there died 3,242,065 children out of 10,037,287 born, while in the south-western belt the deaths were 1,544,632 out of 7,826,679 born. In the north-eastern belt there are some districts where more than half the children born never survive their [illegible] has risen to 626 per 1[illegible] chiefly to irregular [illegible] peasant families. In the Ufimsky, Kasansky, and Orenburgsky districts, where Mahomedans are in the majority, the infantile mortality is distinctly less.

THE TRAFFIC IN OLD HORSES.

ON March 30th a man was fined at the Thames Police-court £3 and £1 11*s.* 6*d.* costs under the Cruelty to Animals Act for leading a horse which was very lame and in pain. The horse was going to be shipped on board the Rotterdam boat. We pointed out some time ago[1] that an order had been issued by the Board of Agriculture by which, from Jan. 1st, 1899, it should be unlawful to convey from any port in the British Isles to any place outside the British Isles "any horse which, owing to age, infirmity, illness, fatigue, or any other reason cannot be so conveyed without cruelty during the intended passage and upon landing." Offences under this order were to be dealt with as under the Diseases of Animals Act, 1894. By this Act anyone offending against its provisions shall be liable to a fine not exceeding £20, or if the offence be committed with respect to more than one animal to a fine of not exceeding £5 for each animal. We have not, however, seen reported a single case where punishment has been inflicted under the Diseases of Animals Act and the Order of the Board of Agriculture, and we should be glad to know why magistrates and others do not use the powers to which they are entitled. As we have said over and over again, the traffic in old worn-out horses is a disgrace to this country. It should be stopped altogether, but pending a regulation to this effect the abominable trade should be made as expensive as possible, so that those who carry it on should be made to feel that it does not pay. Apart from the cruelty involved, even if people like to eat the flesh of diseased and worn-out animals it is no reason why we, as a nation, should make money out of pandering to such a taste.

HÆMORRHAGE FROM TONSILLAR ABSCESS.

HÆMORRHAGE from a tonsillar abscess is so rare that the following case published in the *New York Medical Journal* in March by Dr. W. F. Chappell is of interest. A man, aged 27 years, had two attacks of quinsy in the past two years, each resulting in an abscess which had to be opened. A third attack began on Dec. 1st, 1899, with great pain in the right side of the throat, extending down the neck. He was under treatment for five weeks, during which time four incisions were made with little relief. He then went to the hospital with great swelling of the neck, which was evident both internally and externally, and an abscess pointing in the middle of the posterior pillar of the soft palate. A small incision was made and about half an ounce of foul pus escaped. Pus continued to discharge and the swelling diminished. On Jan. 21st, 1900, four days after the abscess was incised, he complained of sudden severe pain in the throat. In a few minutes about six ounces of blood were lost. The hæmorrhage ceased on the application of tannic acid. Four hours later a hæmorrhage of about eight ounces occurred and was arrested by an astringent gargle. The urine contained much albumin, epithelial and pus cells, and granular casts. On Jan. 26th hæmorrhage to the extent of eight ounces occurred in the morning. In the afternoon the tonsillar and cervical tissues were distended and painful. Blood was still oozing from the opening in the posterior pillar and the abscess cavity was filled with clots. A large incision was made through the anterior surface of the soft palate and carried backwards until the abscess cavity was reached. After washing out the clots with hydrogen peroxide solution the ascending pharyngeal artery was seen at the outer posterior wall of the cavity. No ulceration could be discovered in its walls. The cavity was packed with iodoform gauze. The packing was changed daily for 10 days, the wound healed, and no further hæmorrhage occurred. Dr. Chappell has found in the literature of the subject reports of 10 cases of which only two terminated in recovery. The first case was reported in 1825 by Dr. Samuel Walker. There was double tonsillar abscess. The left abscess opened spontaneously. There was a swelling in front of the thyroid cartilage which on being opened was found to communicate with the right tonsillar abscess. Two days later the patient died from great hæmorrhage, the blood gushing from the mouth and nose. The second case was reported by Dr. Thomas Watson in 1828. Two days after a tonsillar abscess had been opened 12 or 14 ounces of blood suddenly gushed from the throat and nose. The hæmorrhage recurred on the same day and on the following days. Two weeks later bleeding took place after eating, and while preparations were being made to tie the carotid artery the patient died from suffocation. The necropsy revealed the trachea and bronchi full of blood and a large erosion of the lingual artery. In almost all the cases the abscess opened spontaneously and probably an early incision would have prevented the extensive ulceration which implicated a large vessel. Dr. Chappell recommends immediate ligature of the carotid artery on the occurrence of the first hæmorrhage or, as proved successful in his case, a free incision through the anterior wall of the soft palate and firm packing of the abscess cavity with gauze.

---

[1] THE LANCET, Feb. 16th, 1901, p. 495.

THE annual dinner of the West London Medico-Chirurgical Society will be held at Frascati's Restaurant, Oxford-street, W., on Wednesday evening, May 8th, at 7 for 7.30 P.M. Communications should be addressed to Dr. G. P. Shuter, Oaklands, Chiswick-lane, W.

A TELEGRAM from the Governor of the Cape of Good Hope received at the Colonial Office on April 3rd states that for the week ending March 30th 60 new cases of plague were admitted, of which 18 occurred in Europeans and 29 among the coloured population. The deaths numbered 22, of which six were Europeans. The total number of cases reported up to March 30th is 287 and the total number of deaths is 99. Among persons under naval or military control there have been 28 cases with three deaths. A Reuter's telegram, dated April 9th, says that five fresh cases had occurred that day.

THE annual dinner of the Royal Army Medical Corps will be held on Monday, June 17th, at 7.45 P.M., in the Whitehall Rooms of the Hôtel Métropole.

HIS MAJESTY THE KING has graciously consented to continue his patronage to the Charing Cross Hospital, and has also signified his intention to continue to be the patron of the Royal Infirmary, Newcastle upon-Tyne.

THE Cavendish Lecture of the West London Medico-Chirurgical Society will be delivered at the Hammersmith Town-hall on Friday, June 21st, by Sir Richard Douglas Powell who has chosen Acute Cardiac Failure as his subject.

QUEEN VICTORIA JUBILEE INSTITUTE FOR NURSES.—The annual meeting of the Cardiff branch of this society was held on April 1st, under the presidency of Canon Thompson. The report stated that 1214 cases were nursed during the year, compared with 1151 in 1899, while the number of visits made amounted to 32,635, against 32,486 in the previous year. The financial statement showed that the income amounted to £862 and the expenditure to £916.

THE ROYAL COMMISSION ON SOUTH AFRICAN HOSPITALS.

(Continued from p. 1037.)

VIII.

MR. BURDETT-COUTTS (page 17, "The Sick and Wounded in South Africa") says that he has never admitted that the defective medical arrangements rested solely on the transport, but rather on inherent faults of management, bad discipline, want of initiative, and a general spirit of *laisser faire*. The report (page 28) declares: "The military authorities had to decide, and did decide, what materials should be first sent up into Bloemfontein according to the pressure of military necessities, which were so great that it was found impossible to let the medical officers have a free hand in forwarding to Bloemfontein hospital equipment and necessaries. The chief of the staff was the ultimate authority on all matters relating to priority in connexion with the transit of materials along the greatly congested railway." Again: "Throughout the period of difficulty the officers of the Royal Army Medical Corps did their best to urge upon the military the necessities of their patients and the importance of providing for them." Further (at page 40) it is stated that to meet undoubted serious deficiencies in hospital equipment at Bloemfontein "considerable purchases were made in the town, and Surgeon-General Stevenson, in his evidence, states that he bought all that was available." Heavy hospital equipment could not be got up for some time owing to difficulties of transport (page 26 of the report). The provision of bedsteads, we may add, with a force over long lines of communication is incompatible with mobility. Stretchers must and do suffice admirably for field hospitals. It will be seen, therefore, that the Commissioners thoroughly recognise that the medical service were placed at enormous disadvantages at Bloemfontein owing to difficulties of transport for which they had no responsibility.

With regard to the alleged delays in removing patients to hospital from the railway stations the Commissioners admit that delays did occasionally occur. With reference to an instance, however, which was described by Mr. Burdett-Coutts and Mr. Murray Guthrie as having taken place at Bloemfontein the report alleges in explanation that it was due to the accidental separation of a truck. Still, as regards the general charge it is not denied that where wagon transport had to be used there were hardships. But the total number of deaths that occurred in the trains in transit up to September, 1900, only amounted to 14 out of over 22,000 men, in addition to 21 who died within two days of arrival. We may say that while the hospital train service was admirably organised and well carried out the ordinary train service left, in our opinion, a great deal to be desired. It seems absolutely necessary on such occasions to make provision for the supply of refreshment to troops, not only at the various railway stations *en route*, but in the trains themselves. The supply should consist of fluid nourishment and the means of heating it; and similar provision should be made on field service generally at the various rest depôts wherever these exist along a line of march. Whilst upon this subject we may note that in a general way a medical officer charged with the administration of any big hospital in time of war requires to combine the qualities which make a successful manager of an hotel with those requisite in a medical chief of a hospital. There should always be ample supplies of hot fluid foods ready for administration to batches of sick and wounded whilst they are being told off to their wards and their names are being taken.

Those of our readers who have either read the whole or our summary of the Commissioners' report will have gathered that the time of the march from Bloemfontein to Pretoria and the stay in the capital itself involved much stress and strain, and implied a good deal of discomfort and misery to the sick and wounded. Nor can it be denied that there were more or less lack of equipment, deficiency of hospital necessaries and appliances, and, in some cases, defective discipline and disorder. But the fact is that the size and work of the army had become enormously augmented, and there was a great rush on all departments. The army had been out-marching its supplies and in every direction there was evidence of much shortcoming and undermanning A race was going on between demand and supply, in which the former was always outstripping the latter As a general rule, it is for obvious reasons advisable to have only one spending department for an army in the field, if only to avoid different branches of the army competing against one another in the *market to their own mutual disadvantage and to the enrichment* of the producer or seller But it is, of course, quite right that medical officers should be empowered to purchase from any local markets anything that may be needed to meet exceptional or emergent occasions, and they had this power, which they possibly did not sufficiently exercise, during the campaign in South Africa We need not go far, however, to seek the reason of this they and all concerned were too overburdened with work in attending to their hospitals and patients to have either the strength or the time to do aught else The fact is, that altogether too much labour and responsibility are imposed and concentrated on the medical service in time of war. If all is to go well with that service at such times it must have control over everything appertaining to its functions and the hospital and other requirements of the sick and wounded Wherever it has had to depend upon other departments for its supplies experience has shown that these supplies are not forthcoming at the time, or if so that they are not of the nature and amount required, and *consequently failure is the result* But the *possession of* authority and control need not necessarily be attended with increased personal labour on the part of those exercising it What would seem to be wanted is an executive department subordinate to, and under the orders of, the Royal Army Medical Corps which, without interfering with the power and responsibility which should rightly belong to that corps, should nevertheless relieve it of all purely military and *quasi* military duties, the charge of transport animals, and the making of purchases, for example The calls upon executive medical officers under the requirements of the present age in respect of their hospital and purely professional duties are very important The calls upon medical officers of administrative rank to see that the work of their subordinates is properly done and to organise, to superintend and to administer the medical arrangements generally for the force under their immediate medical charge are no less urgent It is advisable to relieve both classes of extra professional work as much as possible The way of doing this will be more fitly considered hereafter, meanwhile we may suggest that a portion of the Army Service Corps under its own officers might be told off in war for the exclusive use of the medical service and for the sole purpose of executing its behests

Want of enterprise has been alleged against the medical officers in not taking over and utilising more permanent buildings in captured towns for the use of the sick and wounded than was done Setting aside the difficulties of furnishing the requisite hospital establishments and equipment required for the purpose, there is room for honest difference of opinion in this matter It is astonishing how few public or private buildings are suitably constructed for hospitals in the way of cubic space, ventilation, and sanitary and cooking arrangements They may possibly afford better protection and more personal comfort to their occupants for the time being than can be obtained in shelters of a less permanent character, such as huts, tents, and marquees; but such additional protection and comfort are too often obtained at the expense of the sick and wounded in other respects The experience of all past wars and the lessons of sanitary science point in this direction Aseptic surgery, when it can be at all properly carried out, has proved most effective in war hospitals, but it is relatively inoperative where defective ventilation and overcrowding are present We have seen but few buildings, other than hospitals proper, which we should prefer to less permanent structures for the occupation of patients whilst under treatment for any serious wound or sickness

We may here make a few remarks on the way in which the military and civil surgeons worked together A few cases of friction, alluded to in the report occurred between the two classes in certain hospitals and we have heard of others, but as a rule the relations between them were harmonious and good and the civil surgeons employed in the campaign have, as a body, done their duty extremely well Civil surgeons labour under many disadvantages in a campaign They are new to the work and they know nothing, of course, of the routine and regulations of army life in the field Many things must naturally seem not only strange but strangely complicated, unnecessary, and irksome to them Moreover soldiers are no respecters of persons but respecters only of uniform, and if the civil surgeon wears no uniform soldiers have nothing to guide them "Tommy's" whole training leads him to look to and to regard the uniform and not its wearer as the outward and visible *sign of that commissioned rank which he is to respect* Soldiers are nevertheless keen observers and shrewd judges of character and professional merit, and any civil surgeon with the manner and bearing of a gentleman who is earnest and straightforward in the discharge of his duties will secure their confidence and respect even if he have no uniform It is usually, in our experience, the man who thinks more of himself and of his importance than of the interests of his soldier patients who fails to do so

What we have understood to be the feeling of army medical officers in regard to the employment of civil surgeons in war may be represented somewhat as follows As regards consultants of acknowledged repute, and drawn from the staffs of large hospitals their presence is always most welcome, not only because of the great professional value of their advice and aid alike to the medical staff and to their patients, but because they constitute a special jury of experts upon whose judgment the public may rely They can appreciate the difficulties and the success of the work that is being done by the medical service in the field Setting aside the case of consultants, where friction arises between the military element and the civil element faults will be found on both sides Men of the right stamp and character cannot always be secured for either class The military surgeon, for one thing, finds his labours increased rather than otherwise, perhaps, during the time that his civil *confrere* is acquiring some practical knowledge of the army regulations and system There is besides some room for the existence of a feeling, which is very natural under the circumstances, that any competition which may ensue between them is an unfair one to the regular army surgeon who has to work with the materials, and be bound by the system, provided by the Government Take the case of the army The regulars are to volunteers as professionals are to amateurs, however good the latter may confessedly be The hard work falls as a simple matter of duty to the lot of the former, they are expected, as disciplined troops, to exhibit superior powers of fighting and resistance and to sustain very serious losses rather than yield or fail in their attempts—qualities which they have certainly exhibited, as a rule, in this campaign But the military virtues of regular troops, like the contents of a lengthy and formal document, are too often "taken as read The big bold headlines in the daily papers are not usually for them and if one of the many heroic and distinguished regiments of the service were to return home to-morrow it would not be accorded the welcome which was given to the *C I V's* The officers of the Royal Army Medical Corps cannot, we imagine, help feeling that they, like the rest of the regular army, may do their best under the most trying circumstances without receiving any special meed of praise, while if there should be any shortcomings it would be they and not the trying circumstances that would reap the *discredit*

We have already *referred to some of the defects* and shortcomings of the train service The Commissioners at page 55 of their report allude to the many complaints and cases of *hardship* that arose in connexion with the conveyance *of* patients to and from fixed hospitals We may remark here that the Indian bearer service transport of the wounded *from* the battle field and properly fitted hospital trains are admirable systems of land transport, and water transport, always preferable, is not always available Where railway trucks are used they must be fitted with some sort of protection from the sun and with sanitary appliances in the shape of buckets or with openings in their floors leading into moveable metal tanks provided with chloride of lime or other disinfectant

The complaints about the hospitals on the lines of communication chiefly concern Sterkstroom and Norval's Pont As regards the former they partly refer to an alleged want of *attention and skill* and lack of consideration for patients shown by some of the staff of a field hospital attached to the camp of the Third Division The Commissioners say "Without endorsing to the full the complaints against the hospital, still, after making allowance for the fact that it was only a field hospital, we are satisfied that its management and condition were not satisfactory." With respect to Norval's Pont the Commissioners state that a number of the complaints appear to them to be substantial (*vide* pages 56 and 57 of the report). As everyone knows, some of the base hospitals at Cape Town have been subjected to much adverse criticism. Speaking generally, the Commissioners report very favourably of the condition of these hospitals and in support of that view quote the strong opinion of Colonel Cooper, the staff commander at the base, to the same effect.

At the conclusion of Part IV. of the report the Commissioners make a number of suggestions and recommendations of various kinds which as soon as the war is ended they consider should be decided upon by a departmental or other committee of experts. Among these are the following:—The staff of the Royal Army Medical Corps should be permanently enlarged and due provision made for its further necessary and speedy enlargement in times of great wars; inducements should be offered to insure a continuous supply to the corps of sufficient men of good professional attainments and those who have joined should be kept thoroughly acquainted with the general progress made in professional subjects and at a high professional standard of efficiency; increased and better provision should be made for scientific study and for promotion by merit; and there should be more nurses for fixed hospitals. The Commissioners also express the opinion that the committee which they think should be appointed might usefully consider whether the Royal Army Medical Corps should not have exclusive possession and control over all necessaries for the sick and wounded. They further recommend that strict inquiry should be made in the military hospitals now in South Africa, and proper steps be taken in order to stamp out, where it exists, pilfering by orderlies of the stimulants, comforts, or property of patients and the receipt of bribes by orderlies from patients. Several other points are likewise referred to on which we need not touch now. Speaking generally we quite concur with their suggestions and recommendations. Some of them are perhaps more easily made than carried out, such as the enlargement and increase of popularity of the Royal Army Medical Corps and the provision of a really efficient medical service adequate to the special needs and worthy of the position of a large empire like that of the British empire. As regards the Royal Army Medical Corps we know that it was thought that, when not only military rank but military titles were accorded to its officers, there would be no lack of medical candidates for the army. Such, however, is far from having been the case. Whilst agreeing generally, as we have said, with the suggestions and recommendations of the Commissioners, we think that the time has come for attempting to devise some larger and more comprehensive scheme than that which they have foreshadowed.

ASYLUM DYSENTERY.[1]

IT has become almost the custom to look upon dysentery as a tropical disease. Yet it is known that a disease which is identical in its clinical and pathological aspects with dysentery occurs more or less throughout Europe, and in past ages well-characterised epidemics of a wholesale kind have raged from time to time in temperate climates. Sometimes these have been limited to institutions, as was a well-known outbreak at the Millbank Penitentiary, and sometimes the disease has occurred with no such local associations. The word "dysentery" has also been employed to designate the disease which is recognised to occur in the lunatic asylums of this country and which is characterised anatomically by inflammatory lesions of the large intestine—colitis. The report issued on this subject by Dr. Mott and Dr. Durham will be found most comprehensive and complete. In an introduction the authors draw attention to the synonyms which have been employed to designate this condition and state their reasons for adhering to the term "dysentery." There certainly seems to be much scope for enlargement of our knowledge concerning the nature, causation, and distribution of dysentery in the tropical zone; but, as Dr. Mott and Dr. Durham point out, so far as the clinical and pathological accounts go there does not appear to be any essential difference between the dysentery of the warmer and that of the cooler climates, though on the whole the type of disease in the tropics may be more severe owing to the condition of the subject, the likelihood of complication with malaria, and the supervention of secondary infections and complications. The authors of the report, therefore, have acted wisely in retaining the term "dysentery" as applied to the disease the outbreaks of which they investigated, and we agree with them that until the exact nature is known of the essential cause in different countries medical men are not in a position to dogmatise as to what is and what is not properly called "dysentery." But it seems probable that such distinctive and similar lesions of the colon as are found in this country and in the tropics must be determined either by identical or by very closely allied agents. It is hardly credible that the same disease should be caused by amœbæ in one place, by a micrococcus in another, and by a variety of colon-like bacilli in others. In conducting their inquiry Dr. Mott and Dr. Durham necessarily had to rely much on the coöperation of the officers and staffs of the asylums, and they express their appreciation of the manner in which they were assisted. The main brunt of the attacks fell upon Hanwell, Colney Hatch, and Claybury. The authors had to rely upon a system of notification which they instituted. Much valuable information has thus been acquired, although they admit that the time during which the system has been in force is far too short for its result to become obvious. But future workers in this field of observation will reap the advantage.

A good account is given of the clinical and anatomical aspects of dysentery as seen in the asylums, and the diagnosis is carefully discussed. Considerable difficulty is often experienced in coming to a conclusion as to the nature of the complaint during life. In many cases the signs are not well marked. Beyond certain abnormal characters of the stools it is difficult to distinguish dysentery from simple diarrhœa. There are no sufficiently definite febrile periods or characteristic conditions of the tongue, skin, &c., and owing to the class of patient questions as to the existence of abdominal pain and the like cannot be put with any useful result. The mainstay of diagnosis consists, in short, in the observation of blood and slime in the stool, but there is no constancy in the composition of the fæcal material. The remarks on the etiology of the disease are most interesting. The authors arrive at the conclusion that it is possible that dysentery may be conveyed by means of the air, but they were unable to elicit any positive evidence that this does occur. Again, so far as the evidence obtained goes, it appears to exonerate the water-supply as the means of spread of dysentery, although this statement is open to certain reservations which are explained in the report. There was likewise no evidence that suggested the implication of the milk-supply. With regard to the water-supply also, if such a common source were at the root of the evil a far more extensive explosion of the disease would have been probable. The section of the report headed "Defective Sanitary Arrangements" affords interesting reading. There are evidently several matters deserving the attention of the authorities, although the outbreaks of dysentery could not be directly assigned to such defects. At Claybury there is an irrigation overflow, by means of which vegetable produce, such as salad and celery (both are eaten in an uncooked condition), are irrigated with raw and unscreened, untreated sewage. An examination of the effluent at a time when it had just been poured over a bed of lettuces showed not only that every cubic centimetre contained more than 1,500,000 bacteria, but abundant unaltered fæces were also present, suggesting that most of the bacteria were of fæcal origin. This amateur sewage treatment on asylum premises is unhesitatingly condemned by the authors of this report.

Another point that rightly receives censure is "imperfectly-regulated personal cleanliness." So far as the authors could ascertain, the rules in all the asylums lay down that there should be washing on rising every morning and a weekly bath when the condition of the patients admits. After the morning wash no further ablutions are compulsory until the following morning. Further, in some cases the lavatories are locked up after the morning ablutions until the next day, so that ordinary cleanliness would seem to be a matter of difficulty. A marked example of the possible danger of such a custom is instanced. In a ward where it had been

---

[1] Report of Drs Mott and Durham on Colitis or Asylum Dysentery. Presented to the London County Council May, 1900, and printed for circulation March, 1901.

admitted that patients might have to assist in dealing with a certain diarrhœa case the ward lavatory was locked and the assistants would then have to go to the slop-sink to wash their hands, and whilst Dr. Mott and Dr. Durham were in the ward the excrement of
posed of down the same
of severe censure. It is
the attendants are much more careful. The wards of the

the purpose they are not available, seeing that they are filled up with ordinary chronic lunatics.

A somewhat grave indictment is found under the heading "On the Occurrence of Dysentery in the Asylums in Previous Years" No satisfactory records have been kept of the various outbreaks of dysentery that have occurred, and apparently but little effort has been made to check its spread. For instance, in the Claybury Asylum a severe outbreak of dysentery occurred in 1896, yet the disease has continued in the asylum ever since without any special attempt being made to take precautions to stamp it out, nor has any systematic record been kept as to the extent to which it has occurred. These matters demand immediate action on the part of the authorities who are responsible for the management of the asylums, and they will do well to give heed to the recommendations laid down in the report now under consideration. Dr. Mott and Dr. Durham offer certain suggestions which, if carried out, would do much towards stamping out the disease and improving the health *of the inmates of the asylums mentioned in the report.*

The authors may be congratulated on the results of their labours. In addition to the actual report data are given of the various visits made to the asylums, and of the conditions which existed in each as to arrangement of wards, lavatories, &c., and "tabulations of cases of dysentery and diarrhœa reported," are furnished. The whole volume is full of interest and we trust that the result of its publication will be a better knowledge of the nature of the disease and greater precautions against its spread. The London County Council have never shown themselves more alive to their great responsibilities than when they appointed an official pathologist to help them in their asylum work, and their public spirit in printing this report should certainly be rewarded by an improved condition of the health of the lunatics under their charge.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

ELECTION OF PRESIDENT.

AN extraordinary meeting of the Comitia was held on Monday, April 1st, Sir WILLIAM SELBY CHURCH, the President, being in the chair.

The PRESIDENT read the gracious reply from His Majesty the King to the loyal address of the College which has already been published in our columns.

The PRESIDENT then delivered the annual address in which he reviewed the work accomplished by the College during the preceding year. The various communications that had been received from the Government, the royal distinctions that had been conferred on certain Fellows of the College, and the medals and prizes which had been awarded were duly referred to, as well as were numerous other matters which had from time to time engaged the attention of the College. Especial reference was made to the new conditions under which the University of London now exists The President then read brief notices of the Fellows of the College who had died during the past year—namely, Sir William Overend Priestley, Dr. Nicholas Tyacke, Dr. Daniel John Leech, Sir Henry Wentworth Acland, Dr. Dennis Embleton, Dr. John Cockle, and Dr John Baptiste Potter.

Dr. PAVY proposed and the Second Censor (Dr C. T WILLIAMS) seconded a vote of thanks to the President for his address, including a request that it should be published. This was carried The PRESIDENT having thanked the College vacated the chair. The Registrar (Dr. E LIVEING) having read the by-laws relating to the occasion, the election of President took place. The result was declared to be as follows: Sir W. S. Church, 94 votes; Sir W. Broadbent, three. Five voting papers were blank.

Sir William Selby Church was then declared to have been elected. The charge was delivered by the Senior Censor (Dr. W. Cayley) and the President pledged his faith to the
ain electing him,
th were nominated by
nd the celebration of
lasgow.
received. From the
ns of England reporting certain proceedings of the Council on Feb. 7th and March 14th last. From the General Medical Council announcing the expiration, on May 14th, 1901, of the appointment of Sir Dyce Duckworth as representative of the College in that Council. A letter was also read from Sir Dyce Duckworth resigning his position as that representative. The SECOND CENSOR proposed, and Dr PYE SMITH seconded, a vote of thanks to Sir Dyce Duckworth for his services. This was carried with acclamation.

A report was received and adopted from the Committee of Management, dated Feb 25th, 1901. Amongst other matters the report set forth the new regulations of the General Medical Council for Diplomas in Public Health, and recommended that the Croydon Borough Hospital should be added to the list of fever hospitals recognised by the College.

Certain alterations in the by-laws were also announced as follows:—

The REGISTRAR moved that By-law CXXXVI. be amended and re enacted for the second time as follows, to render it conformable to the regulations of the Conjoint Board, the alteration consisting in the addition of the words printed in italics.—

This was carried.

The REGISTRAR moved that By-law CXLV. be amended by the omission of the words printed in italics in the copy below to make it conformable to the regulations of the Conjoint Board and re enacted for the first time.

BY LAW CXLV.

Any Member of a Scottish or Irish University *where it is required*
[illegible]
shall comprise the subjects of the First and Second Examinations of the College, and who shall have completed the curriculum of medical study required by the Regulations of his University shall, two years after having passed all the other required Examinations, be eligible, on payment of the requisite Fees, for admission to the Third or Final Examination

The PRESIDENT then dissolved the Comitia

ASYLUM REPORTS.

Hereford County and City Asylum, Burghill (Annual Report for 1899).—The average number of patients resident during the year was 367 and comprised 171 males and 196 females. The admissions during the year consisted of 75 patients—viz, 41 males and 34 females. Fifty of the patients admitted were first admissions, the rest being re admissions Mr. C S. Morrison, the medical superintendent, states in his report that of the admissions 57 per cent of males and 54 per cent of females were over 60 years of age, "an age at which the climacteric in the life of the individual is attained and a period when slight causes operating to disturb the state of health render the return to health precarious and difficult of attainment." It is pointed out that many cases of senile mental decay certified as insane and brought to the asylum would, with a little care and supervision, be more suitable for the workhouse, and it is suggested that it would be well if some provision were made in the Poor-law by which such cases should be assigned to the workhouse instead of placing them "under the same expensive hospital conditions in which the acute and recent cases are properly placed" Mr. Morrison suggests a procedure to meet these ends—viz., that the certificate of the medical superintendent of the asylum to the effect "that the mental alienation (of a patient admitted) does not come within the meaning and definition of the Lunacy Act" might be made sufficient to secure the removal of the person to the workhouse. Any tendency on the part of the asylum superintendents to transfer too readily a case from the care of an *asylum would be adequately met by the provision that* the certificate was to be given in consultation with a duly appointed local medical practitioner unassociated with either institution, asylum or workhouse. "This is a subject worthy of serious consideration by the State, in view of the ever-increasing burdens placed on the tax- and rate-payers." At present asylums are converted into "dumping grounds for all mental defectives, whether idiots, imbeciles, epileptics, senile dements, or cases of actual insanity, and the special needs of each class are in consequence neglected or only partially met." Mr. Morrison points out that in some patients there exist "germs of a diseased egoism in such a type which readily assimilates the cult of destructive anarchism," and that such patients may, under suitable conditions, be propagators of a progeny dangerous and unprofitable to the community. During the year 26 patients were discharged as recovered, or 7 per cent. of the average number resident. The deaths during the year amounted to 34—viz., 21 males and 13 females, or 9·2 per cent. of the average number resident. Among the deaths two were due to chronic renal disease, four to epilepsy, four to phthisis, five to general paralysis, and 15 to atrophy of the brain. Two inquests were held during the year and the verdict in each case was that of "Death from natural causes." "A higher recovery-rate and an increased death-rate, with what may be termed a normal average admission-rate, is accountable for the net decrease in the numbers shown in the statistics of the year." The asylum was visited by two severe epidemics of influenza, with the result that a considerable number both of the patients and of the staff was attacked. The absence of an isolation block for infectious cases is severely felt, patients affected by the influenza being scattered in wards throughout the building and thus directly infecting others and causing its dissemination. The same difficulty was experienced in treating an outbreak of facial erysipelas among the patients. Active measures were adopted to stamp out tuberculosis among the cows on the farm and they were attended with complete success.

Dundee Royal Asylum (Annual Report for 1899).—The average number of patients resident during the year amounted to 411 and comprised 172 males and 239 females. During the year 105 cases were admitted—viz., 49 males and 56 females. Of these 22—viz., 10 males and 12 females—were not first admissions. Dr. James Rorie, the medical superintendent, states in his report that the number of private patients continues steadily to increase. The number of cases discharged as recovered during the year amounted to 46—viz., 18 males and 28 females, or 11·1 per cent. of the average number resident. The deaths during the year amounted to 41—viz., 16 males and 25 females, or 9·9 per cent. as calculated on the same basis. "The physical condition of the patients on admission has been very similar to that of former years. The forms of mental illness of those admitted do not show any departure from the records of previous years worthy of notice." Among the causes of insanity in the *persons admitted* there were previous attacks in 27 cases, alcoholic intemperance in 18 cases, mental anxiety, worry, and overwork in 16 cases, old age in 14 cases, and heredity in 14 cases; 13 cases were the outcome of frail physical health. Of the deaths during the year five were due to phthisis, 10 to senile decay, and 10 to general paralysis of the insane. The building for private patients is nearly completed, and when finished will not only supply a want that has been *much felt in the past* but will put the institution in a position "to meet any demand that may be made upon it for years to come for the admission of patients of whatever class or social position." To make the building complete a separate chapel has still to be erected, the religious services at present being conducted in the largest day-room on the female side of the house. This can, however, only accommodate about 180 persons, while fully two-thirds of the patients could be present were a proper building provided. The committee of management *recently* desired to raise slightly the charge of maintenance per head for pauper patients and submitted proposals accordingly to the General Lunacy Board who intimated their decision that 12*s.* 6*d.* per week should be the rate chargeable per head for pauper patients. The Lunacy Commissioners in their report speak favourably of the management of the institution and of the general comfort and appearance of the patients.

Warwick County Lunatic Asylum (Annual Report for 1899).—The average number of patients resident during the year was 964 and comprised 396 males and 568 females. During the year 226 patients were admitted and of these 181 were first admissions, comprising 89 males and 92 females. Dr. Alfred Miller, the medical superintendent, states in his report that 87 of the patients (all females) were chargeable to the County of London. The number of admissions was about the same as in the previous year, and included among them were the following cases: idiots 17, epileptics 10, general paralytics 9, and chronic maniacs *and dements 51. Three cases were found not insane on* admission, "one was an alcoholic vagrant, a type that often finds a temporary home in an asylum. A second presented some slight signs of mental aberration but not sufficient to justify detention. ...... The third in this category was a girl who might possibly be considered to belong to the type of moral insanity. She remained for some weeks under close observation. Finally, we came to the conclusion that we were not justified in detaining her as her actions and conduct seemed to be simply that of a cunning and crafty criminal." The patients discharged as recovered during the year amounted to 84, of which 44 were males and 40 females, or 21·5 per cent. on the average number resident. The deaths during the year amounted to 96, being 48 of each sex, or 24·2 per cent. of the average number resident. Of the deaths four were due to senile decay, six to epilepsy, 11 to cerebral apoplexy, 13 to cardio-valvular disease, 14 to general paralysis of the insane, 16 to pneumonia, and 17 to pulmonary phthisis. There were no deaths from violence during the year. Referring to the excessive death-rate from phthisis due to such conditions as overcrowding, deficiency of fat-forming foods, and the low vitality of chronic insane patients, Dr. Miller observes that "in former days we had (in this asylum) overcrowding to a great extent, we had a system of drainage of most defective character, and our ventilation system required a great deal to make it efficient." Notwithstanding improvements in drainage and ventilation an excessive mortality from phthisis still exists. Recently, therefore, provisions were urged and plans were submitted for an isolation block for phthisical patients designed to accommodate 24 patients, 12 of each sex, and the hope is expressed that the "necessary powers will soon be obtained from the county council to carry out the work." The desirability of a joint pathological laboratory for the midland counties is referred to and the hope is expressed that the new Lunacy Bill, which will allow for such a provision being undertaken by two or more joint counties, will soon become law. Owing to the need for the services of the reservists the staff on the male side was very much disorganised, 11 men having been called out. The farm continued to be in good condition, the supply of meat and vegetables being more plentiful than in former years. The Lunacy Commissioners in their report state that the case-books and medical records are properly kept and that the former are illustrated by good photographs.

BRISTOL EYE DISPENSARY.—The annual meeting of the subscribers to this institution was held on April 2nd under the presidency of Mr. P. J. Worsley. The medical report showed that 1776 patients had been treated, as compared with 1762 in the previous year. The financial statement was satisfactory. The committee regretted the death of the honorary treasurer, Dr. J. E. Prichard, who for the past 15 years had also assisted in the out-patient department of the dispensary.

VACCINATION PROSECUTIONS.—At the East Kerrier (Cornwall) Police-court on March 27th a tradesman was summoned for neglecting to have his child vaccinated. Defendant stated that his mother lived in a house adjoining his and the public vaccinator called there and did not make the offer to vaccinate the child to himself or to his wife. The case was dismissed. A farmer was also summoned for the same cause and said that he objected to vaccination as he had lost three children through it. The chairman remarked that the defendant must be under a great misapprehension in thinking that his children died owing to vaccination and made an order for the vaccination of the child.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Erdington Urban District.—Dr. Bostock Hill, in dealing with the question of isolation, refers to the fact that a large number of enteric fever patients were removed during 1900 from Birmingham and Aston to the workhouse infirmary. It appears that patients thus removed have been instrumental on more than one occasion in conveying enteric fever to other persons in the infirmary, and Dr. Hill suggests that it is very undesirable that enteric fever patients should be brought from outside the district into the workhouse. He observes that views as to the infectivity of enteric fever have undergone a considerable change within recent years, and there are many medical officers of health who condemn the practice of treating cases of this disease in the ordinary wards of a general hospital. Erdington would appear to possess no isolation hospital of its own, but the council has an arrangement with Aston for the isolation of scarlet fever and small-pox. Dr. Hill urges his district council to provide accommodation both for enteric fever and diphtheria.

Ormesby Urban District.—The medical officer of health of this district has done some good work during 1900 by inspecting the condition of the farms under his jurisdiction. The details of the inspection do not form pleasant reading and it is obvious that the administration of the local authority in this matter has been very slack. We are told that "for many years the same farms have been complained of, but almost nothing done to comply with notices served, or else the work has been commenced and afterwards allowed to drop altogether." In the detailed report we read of insufficient cubic space for the cows, of dung-heaps near bedroom windows, and of water-supplies unfit for domestic use. Both the farmhouses and the farmyards appear to be frequently in a deplorable condition and it is difficult to understand how anything approaching a pure milk-supply can proceed therefrom. We trust that the medical officer of health will be supported in his endeavour to obtain improvement.

Aldershot Urban District Council.—This district council have recently provided a laboratory for the analysis of water and for bacteriological diagnosis. As Dr. Thomas Dunlop, the medical officer of health, observes, this provision saves both expense and time, and the latter element especially is of vast importance in diphtheria, wherein the early treatment by antitoxin may just turn the balance between life and death. In the matter of the health of cows we are glad to see that the Aldershot cowkeepers appreciate the value of fresh air and that even during the winter months the cows are turned out for a certain time each day. The Aldershot District Council have provided some capital filter-beds, both primary and secondary, composed of clinkers of different sizes. The primary beds are apparently "contact" ones, while in the secondary beds the flow of sewage is continuous. We believe that the district council have taken much trouble in arriving at the method of sewage disposal best suited to their sewage, and it is therefore gratifying to learn that the method now in vogue has enabled the cost of chemicals, as used in chemical precipitation, to be saved and to be expended in the construction of new filter-beds.

Teignmouth Urban District.—Dr. F. C. H. Piggott reports that the attempt to introduce a scheme of voluntary notification of phthisis in Teignmouth has not met with much success although a fee of 2*s.* 6*d.* was offered by the district council. There were but two medical men in the district who undertook, *subject to the patient's consent*, to notify cases of phthisis. No notifications were, however, received. The registrar of deaths was also asked to inform the sanitary authority of every death registered from phthisis, but no information in this sense was received from the registrar. Dr. Piggott advises that a further effort be made to bring about a better state of local feeling on the subject. But the experience is of interest in relation to the general problem of notification. Teignmouth is still without the means of efficiently disinfecting infected clothing and bedding, and it is well that visitors to Teignmouth should be aware of this fact. Apparently the district council proposed to erect a disinfecting apparatus on the top of the sewage tank and the Local Government Board have, very naturally it seems to us, taken exception to the site. The surveyor reports that additional water is needed for the district and the council are said to be considering the question.

Greenock Urban District.—Dr. James Wallace in furnishing the figures for the mortality from phthisis and other tuberculous diseases in Greenock attributes the decrease which has taken place since 1875 to what he terms the "general sanitary operations" which have been operative since that date rather than to any of the measures proposed of late. By this latter expression we infer that Dr. Wallace is somewhat sceptical as to the value of notification, isolation, and spittoons, as also of the recent efforts to detect the tuberculous udder and to render the milk drawn therefrom unavailable for human consumption. Dr. Wallace places in the first rank of the necessary measures the endeavour to prevent the *predisposition* to the disease by means of the reduction of overcrowding and by rendering the houses of the poor more fit for human habitation. Certainly, whatever views may be held as regards the importance of predisposition, the steps suggested can hardly fail to have a considerable influence upon the reduction of the disease.

The Borough of St. Marylebone.—Mr. Wynter Blyth, in his report for February, expresses his opinion upon certain of the water regulations recently brought forward by the metropolitan water companies, and he does this upon the assumption that such regulations may be re-introduced at a future date. With the attempt to limit the capacity of the flushing cistern to two gallons he has no sympathy; he regards it as entirely wrong in principle and urges that if a water company is allowed to dictate the amount of water necessary for this purpose—an amount which varies with the type of closet—the next step may be to dictate the amount of water to be allowed for personal ablution. With respect to the proposed provision of sufficient storage accommodation Mr. Blyth estimates that in this district an expenditure of at least £20 per house would have been required, and he sees no sufficient hygienic advantage to be derived therefrom. He thinks that it would have been a wiser course on the part of the companies had they protected themselves against wilful waste by adopting the meter system.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6593 births and 4341 deaths were registered during the week ending April 6th. The annual rate of mortality in these towns, which had been 18 4 and 19 7 per 1000 in the two preceding weeks, declined again last week to 19 2. In London the death-rate was 17 6 per 1000, while it averaged 20 2 per 1000 in the 32 provincial towns. The lowest death-rates in these towns were 9 7 in Croydon, 11 8 in Birkenhead, 12 5 in Brighton, and 13 6 in West Ham; the highest rates were 24 3 in Manchester, 24 7 in Salford, 24 8 in Wolverhampton, and 27 7 in Liverpool. The 4341 deaths in these towns included 380 which were referred to the principal zymotic diseases, against 356 and 427 in the two preceding weeks; of these 109 resulted from whooping-cough, 105 from measles, 64 from diphtheria, 41 from diarrhœal diseases, 39 from scarlet fever, and 22 from "fever" (principally enteric). No death from any of these diseases occurred last week in Croydon, in Brighton, or in Norwich; in the other towns they caused the lowest death-rates in Plymouth and in Huddersfield, and the highest rates in Liverpool, Sheffield, Sunderland, and Gateshead. The greatest proportional mortality from measles was registered in Liverpool, Bolton, Sunderland, and Gateshead; from scarlet fever in Blackburn; from whooping-cough in Bristol, Swansea, Wolverhampton, Derby, Sunderland, and Gateshead; from "fever" in Halifax; and from diarrhœal diseases in Halifax. The 64 deaths from diphtheria included 21 in London, eight in Sheffield, four in Leicester, and four in Salford. No fatal case of small-pox was registered either in London or in any of the 32 large provincial towns; and no small-pox patients remained under treatment in any of the Metropolitan Asylums hospitals on Saturday, April 6th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 1572, against numbers declining from 2535 to 1568 on the 13 preceding Saturdays; 180 new cases were admitted during the week, against 130, 151, and 167, in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 332 and 363 in the two preceding weeks, declined again last week to 360, and were 51 below the corrected average. The causes of 66, or 1·3 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Salford, Oldham, Leeds, Newcastle, and in six other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Blackburn, Halifax, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·1 and 21·6 per 1000 in the two preceding weeks, further rose to 24·1 during the week ending April 6th, and showed an excess of 4·9 per 1000 over the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 13·1 in Leith and 20 8 in Edinburgh to 26·7 in Greenock and 28·1 in Paisley. The 757 deaths in these towns included 57 which were referred to whooping-cough, 16 to measles, eight to diphtheria, eight to diarrhœa, six to "fever," five to small-pox, and two to scarlet fever. In all, 102 deaths resulted from these principal zymotic diseases, against 87 and 93 in the two preceding weeks. These 102 deaths were equal to an annual rate of 3·3 per 1000, which was 1 6 per 1000 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of whooping-cough, which had declined from 67 to 36 in the five preceding weeks, rose again last week to 57, of which 31 occurred in Glasgow, 13 in Edinburgh, and 10 in Dundee. The deaths from measles, which had been eight and 17 in the two preceding weeks, declined again to 16 last week, and included eight in Edinburgh, three in Leith, and two in Glasgow. The fatal cases of diphtheria, which had been seven and six in the two preceding weeks, rose again last week to eight, of which five were registered in Glasgow and three in Edinburgh. The deaths from diarrhœa, which had been 15 and 16 in the two preceding weeks, declined again to eight last week and included five in Glasgow. The fatal cases of "fever," which had been six and four in the two preceding weeks, rose again last week to six, of which four occurred in Glasgow and two in Greenock. The deaths from small-pox, which had been 24, 11, and 10 in the three preceding weeks, further declined to five last week, and were all recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 126 and 127 in the two preceding weeks, further rose last week to 150, but were slightly below the number in the corresponding period of last year. The causes of 44, or nearly 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 36 6 and 34·0 per 1000 in the two preceding weeks, further declined to 31·9 during the week ending April 6th. During the past four weeks the death-rate in the city has averaged 34·3 per 1000, the rates during the same period being 17·9 in London and 22·7 in Edinburgh. The 212 deaths of persons belonging to Dublin registered during the week under notice were 14 less than the number in the preceding week, and included 12 which were referred to the principal zymotic diseases, against 15 and 14 in the two preceding weeks; of these, 5 resulted from whooping cough, four from "fever," two from diphtheria, and one from diarrhœa. These 12 deaths were equal to an annual rate of 1·8 per 1000, the zymotic death-rates during the same period being 1·6 in London and 4·4 in Edinburgh. The fatal cases of whooping-cough, which had been 11·7 and 0 in the three preceding weeks, rose again to five last week. The deaths referred to different forms of "fever," which had been two and one in the two preceding weeks, rose again last week to four. The 212 deaths in Dublin last week included 29 of children under one year of age and 58 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons corresponded with the respective numbers in the preceding week. No inquest case was registered, but four deaths from violence occurred; and 79, or more than one-third, of the deaths were recorded in public institutions. The causes of 7, or more than 3 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

Surgeon Charles James Seddon Kelsall has been placed on the retired list. Surgeon Edward Butler Pickthorn has been promoted to the rank of Staff Surgeon.

The following appointments are notified: — Fleet Surgeons: I. H. Anderson to the *Duke of Wellington*, for Portsmouth Dockyard; W. R. White, R M.L.I., Portsmouth; R. Bentham to the *President;* H. A. W. Richardson to the *Magnificent;* and R. D. White to the *Achilles*, for Malta Dockyard. Staff Surgeons: B. O. E. F. Gunn to the *Hannibal;* W. E. Home to the *Galatea;* James Bradley to the *Pyramus;* and J. R. McDonnell to the *Achilles*, for Malta Dockyard. Surgeons: M. H. Knapp to the *St. Vincent;* J. H. Pead to the *Wildfire*, temporary; J. T. M. McDougall to the *Duke of Wellington;* J. N. Robertson to the *Research;* L. Kilroy to the *Achilles*, and S. H. Facey to the *Achilles*, for Malta Dockyard.

ROYAL ARMY MEDICAL CORPS.

Major R. Caldwell assumes medical charge of troops, Station Hospital, &c., Maryhill, Glasgow. Lieutenant-Colonel D. L. Irvine has arrived in the Eastern District for duty, and assumes temporary medical charge at Bedford during the absence on sick list of Lieutenant-Colonel Poynder, r.p.

The undermentioned Civil Surgeon, serving in South Africa, to be Lieutenant: James Herbert Roche Winder.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Captain Robert Sinclair Smith to be Surgeon-Major.

YEOMANRY CAVALRY.

Royal 1st Devon: Murray Babington Stuart to be Surgeon-Lieutenant.

VOLUNTEER CORPS.

Artillery: 1st Cornwall (Duke of Cornwall's) (Western Division Royal Garrison Artillery): Surgeon-Major W. K. Bullmore retires with permission to retain his rank and to wear the uniform of the corps on his retirement. 1st West Riding of Yorkshire (Western Division, Royal Garrison Artillery): Percy James Sandys Bird to be Surgeon-Lieutenant. *Rifle:* 2nd Volunteer Battalion the King's (Liverpool Regiment): Surgeon-Lieutenant D. Smart to be Surgeon-Captain. 3rd Volunteer Battalion the Duke of Wellington's (West Riding Regiment): Alexander Waugh to be Surgeon-Lieutenant. 5th (Glasgow Highland) Volunteer Battalion the Highland Light Infantry: Surgeon-Captain G. Bell Todd to be Surgeon-Major. 1st Dumbartonshire: Brigade-Surgeon-Lieutenant-Colonel P. F. Robertson resigns his commission, with permission to retain his rank and to wear the uniform of the corps on retirement, vacating at the same time the appointment of Senior Medical Officer to the Clyde Volunteer Infantry Brigade.

SOUTH AFRICAN WAR NOTES.

Major Wyatt is reported to be progressing favourably (Bloemfontein, April 3rd). Captain H. G. Martin, R.A.M.C., Captain F. McDowell, R.A.M.C., and Lieutenant Black, R.A.M.C., have been discharged from hospital to duty.

MALARIA AND MOSQUITOES IN GERMAN WEST AFRICA.

In the *Archives de Médecine et de Pharmacie Militaires* for March Dr. A. Billet briefly reviews the papers entitled "Malaria and Mosquitoes on the West Coast of Africa" which were recently published by Dr. Ziemann of the German navy as the result of his personal investigation in the Cameroon and Togo districts during a period of 16 months from March, 1899, to July, 1900. The conclusions drawn by the reviewer, seven in number, are to the following effect: 1. The mortality of the regions in question is very high, being at the rate of 9·8 per cent. for a strength of about 186 Europeans. The greater part of it is due to malaria which presents itself chiefly under the form known as tropical fever. 2. In persons who have not as yet undergone treatment by quinine this disease assumes the malignant tertian type, being characterised by paroxysms of 24, 48, and even of 72, hours' duration, broken by remissions when the temperature falls about 2° or 2·5° F. This kind of fever, accordingly, fully deserves the name of remittent, irregular, or continued fever, in spite of the assertion of R. Koch who denies the existence of such beneath the tropics. In relapses the disease usually assumes the form of simple tertian. The hæmatozoon is constant. It presents itself under the annular form and may contain [illegible]. Tropical fever ought to be pla[illegible]e æstivo-autumnal fever of the [illegible]ing to Koch, being identical. 4. The alleged immunity of the negro race to malaria does not in reality exist. The truth is that the blacks exhibit all the stigmata of palustral infection from their earliest infancy, splenic enlargement being one of the most common. The malarial immunity enjoyed by coloured races is merely acquired and relative. In the Cameroon district inoculation with infected blood was practised, with their own consent, on a number of negroes, the result in 71 4 per cent. of the cases being positive. 5. From a therapeutic point of view quinine remains the sovereign medicament *par excellence*, being far superior to all others, inclusive of phenocol and methylene blue. Quinine should be given during intermissions, five or six hours before the expected paroxysm. The maximum amount per diem, and also per dose, is two grammes. After the paroxysm is over the patient should take one gramme daily for three days. During the next three weeks he should take half a gramme every second day, and after that the same amount every fourth day. Half a gramme of quinine is also most suitable for prophylaxis, a procedure of which Dr. Ziemann is an ardent partisan. 6. With regard to the burning question of the transmission of malaria by mosquitoes it is well to remember that the honour of having been the first amongst German observers to demonstrate this transmission in an irrefutable manner is beyond controversy due to Dr. Ziemann. He found in the Cameroon and Togo districts four different species of anopheles of which about 30 per cent. contained the "coccidies" of malaria. Subsequently he followed up the evolution of the sexual forms of the human parasite in the stomachs of the mosquitoes and their definite transformation into these same coccidies. This evolution would seem to take place more slowly than in the Italian mosquitoes—that is, in between 10 and 16 days. There exists, moreover, in the Cameroons a species of black culex having its feet ringed with white which stings man very severely, and that not only by night but also during the daytime. It would seem that this species is equally capable with the anopheles of transmitting malaria The biological and distinctive characteristics of the culex and the anopheles are minutely described. The larvæ of the latter develop themselves exclusively in the pools of limpid water containing green algæ which border the paths, whereas those of the culex thrive in stagnant waters of every kind. 7. In a final section Dr. Ziemann examines the question whether man is the sole intermediary host of the malarial parasite, and takes the opportunity of recalling the circumstance that long before Dionisi made his observations in Italy he had found a parasite very closely resembling those described above in the blood of various kinds of bats on the West African coast. He has, likewise, met with very nearly similar organisms in sundry smaller members of the monkey family, as well as in a chimpanzee of the French Congo. It is, however, difficult to come to a conclusion regarding the identity of these organisms with the hæmatozoon of Laveran.

SOUTH AFRICAN WAR AFFAIRS.

As it was after the Burma war and so many other wars of this and other countries so it has proved with the Boers in South Africa. It has not followed that because their forces have been routed and their strongholds have been taken that fighting has thereupon ceased. There has succeeded a stage of desultory warfare of the guerilla and marauding type of a very trying kind, and this we seem still likely to have for some time yet in South Africa In a vast country where there are so few houses and buildings that 50 or more miles of veldt may be traversed without seeing any except at and around the railway stations, there is plenty of room for this sort of warfare and for occasional raids on small and comparatively weak posts and on the lines of railway. Still the latest news from Lord Kitchener about the systematic sweeping of the country and the repeated capture of horses, cattle, and ammunition and stores of all kinds and the success of General Plumer's expedition to Pietersburg, must sooner or later bring things to an end. There will still remain, however, the settlement of the country and the decision as to what is to be done hereafter with the large number of prisoners at St. Helena and Ceylon. There is very little medical news, nor are we likely to obtain any from the columns in active movement in various directions throughout the country. Enteric fever is still prevalent, but to nothing like the extent that it was. Although there has been much desultory fighting the number of casualties on either side has been small. The Boers, although they harass the British troops occasionally by attacks on a small scale, very rarely make any stand. The most important medical news is that connected with the plague which, according to the telegrams reporting its progress, appears to be getting a firmer foothold in Cape Town and its vicinity. As we go to press we hear rumours to the effect that De Wet's intellect has become affected and that Louis Botha is desirous to treat for peace.

VOLUNTEER MEDICAL ASSOCIATION AMBULANCE CHALLENGE SHIELD.

This challenge shield, of the value of 200 guineas, is offered for competition by the Volunteer Medical Association to encourage ambulance training in volunteer regiments and is held for one year by the regiment winning at the annual competition. The competition is open to stretcher squads composed of certificated regimental bearers belonging to any corps in the Volunteer or Yeomanry Forces and the Honourable Artillery Company (the Volunteer Medical Staff Corps and Volunteer Infantry Brigade Bearer Companies are excluded from the competition by the terms of the trust deed under which the shield is held, and non-commissioned officers above the rank of corporal are not eligible), and takes place at Wellington Barracks on June 1st. Particulars can be obtained from J. J de Zouche Marshall, Surgeon-Major, A.M R, 3rd Volunteer Battalion East Surrey Regiment.

H M S. "BRITANNIA."

The cadets returned to H M S. *Britannia* after a month's absence on April 1st. A number of alterations and improvements have been made at the suggestion of the medical board recently appointed by the Admiralty. Hammocks for 25 cadets have been slung aft, thus materially extending the amount of space in the sleeping decks for each cadet.

DEATHS IN THE SERVICES

Deputy Surgeon-General Andrew Fleming, I.M.S. (Bengal), on March 25th at Edinburgh, aged 79 years.

Correspondence.

"Audi alteram partem."

"LEGISLATION AGAINST NATIONAL INTEMPERANCE."

To the Editors of THE LANCET.

SIRS,—Dr Archdall Reid, in his letter of April 6th to give point to his condemnation and satire of legislation against national intemperance, asks two questions. In the north we have a way of answering one question by asking another. He first asks for evidence in support of "M.D, B S. Lond.'s" statement that "habits of intemperance in either parent tend inevitably to produce conditions which act unfavourably upon the children and interfere with the healthy development of both mind and body." Does Dr. Reid believe (with all modern medical writers on these subjects) that gout, rheumatism, and the neuropathic diathesis are hereditary conditions? If he does believe this, on what evidence has he founded his belief?—on the consensus of educated medical observation or on the recorded figures of a series of individual family histories concerning, [illegible] such as would be sufficient to [illegible] but scientific statistician? A [illegible] Reid must well know that if all efforts to cure and prevent disease were arrested until the scientific statistician was fully satisfied by figures we should probably have to wait till the next century before anything was done. He must know that in medicine a strong consensus of skilled observers, a strong probability, and hypotheses that best explain the facts have all led to successful efforts for the treatment and prevention of disease. Dr. Reid can find for himself any number of recorded family histories in which alcoholism was the main element in individual and race degeneration. I maintain that the general consensus of medical observations strongly and almost unanimously agrees with "M.D., B.S. Lond.'s" conclusions. I believe the following quotation from Dr. John Macpherson's recent admirable work on "Mental Affections" will be homologated by 99 out of every 100 members of our profession: "From such facts as the foregoing, and many others of a similar nature which might be cited, we perceive that the influence of alcoholic excess in the parents induces in their descendants a debilitated constitution, disorders of nutrition, a low resistive power, a tendency to contract infectious diseases; in short, a general neurosis or diathesis out of which may spring one or other of the numerous affections of the nervous system which depend upon disordered nutrition."

Dr. Reid's second question takes the form of a challenge "to indicate a single instance in which prohibitory laws have not been followed by increased drunkenness as well as by a general degradation of the public morals." Few of us advocate "prohibitory" laws, but many of us do strongly urge on the State to increase the control and regulation of the excessive sale of alcoholic drinks. On these lines I take up Dr. Reid's challenge. In 1833 Norway had no excise or licensing laws and the consumption of spirits then amounted to 16 litres per head of the population, drunkenness being lamentably prevalent and increasing. The effects of this on the public health and morals were so bad that the Norwegian Government passed a stringent law controlling and regulating the distilling and sale of spirits. The good effects of this legislation were at once apparent, and in 1899 only 3·3 litres of spirits per head of the population were consumed. In short, Norway as a nation has been made sober, not by religious or moral suasion, but by legislation controlling and regulating the sale of spirits. The moral state and health of the people have been enormously improved. If Dr. Reid will pardon me, I would like, with much deference, to make two suggestions. Let him carefully study the facts about alcohol and alcoholic legislation to be found in Messrs. Rowntree and Sherwell's recent work. Let him also go into a low street in London, Glasgow, or Edinburgh when the public-houses are shutting on a Saturday night and thus study the price of possible alcoholic immunity that is to come 200 years hence in his fellow creatures who emerge from those houses, and let him then accompany a few of them to their homes, taking a look at their children to see the signs of degeneration, hereditary or otherwise. If modern preventive medicine had pursued a fatalistic inertia founded on letting the doctrine of the survival of the fittest take its natural course the death-rate of Great Britain would still have been about 25 per 1000 of the living. Surely the man who uses any theoretical doctrine—of alcoholic immunity or otherwise—as a spoke in the wheel of health reform or social amelioration incurs a tremendous responsibility and should be very sure of his ground.

I am, Sirs, yours faithfully,
T. S. Clouston.
Edinburgh, April 8th, 1901.

THE MEDICAL PROFESSION AND THE BUDGET.

To the Editors of The Lancet.

Sirs,—There is no doubt that the income-tax presses most heavily upon the professional classes, and of the professions to the greatest degree upon the members of the medical profession, because their lives and healths are the more precarious and exposed to the assaults of disease both by night and day. As it is well known that their expectation of life is the shortest of all the professions, consequently their productive period is also of the shortest. After a most costly education the medical man finds that his working expenses are greater than that of any other profession, that his bad debts are more numerous, and that the calls upon his charity are such that the profession to which he belongs probably contributes in value three-fourths of the vast medical charities of the kingdom.

The medical and surgical services gratuitously given to the sick poor and to those who consider themselves poor represent a pecuniary value of some millions of money—a grant in aid of the sick poor, contributed to alone by the medical profession, and by so much relieves the rates, both county and parochial, because, if it were not for medical charity this medical and surgical aid would have to be provided by the public and paid for by taxation. An argument, as shallow as it is exasperating, is always trotted out by hospital committees and lay managing secretaries on this point to the effect that the experience gained by the medical staff in working for nothing more than squares the bargain. They do not see that the same argument applies to all professions. A new judge or barrister, or Prime Minister or bishop, or managing director, in the course of the practice of their calling, obtain valuable experience—they get paid for it all the same. They are not told, as we are, that the experience and reputation attached to holding a prominent public appointment is in itself a sufficient reward and pecuniary discharge in full for value received. The public fail to see, and we are too backward in proclaiming, that experience *per se* gained in giving gratuitous medical service has no value that it would not equally possess if those services were adequately remunerated. It is necessary to emphasise this point in view of the many hospital management controversies now raging. It can be shown, therefore, that the relation of the medical profession to the public is in this way different to that of any other profession or calling, and consequently we can claim special treatment and leniency in the matter of taxation. Instead of leniency, as a body, we are exploited and practically scalped, and skinned by successive Chancellors of the Exchequer. At one of the recent Budgets one of the Chancellors actually chuckled with delight at the amount of income-tax that had been squeezed out of the medical profession and our profession was so feebly represented in the House that there was no one sufficiently instructed or articulate to explain that the exigencies of their calling prevented medical men from appealing against excessive assessment or agitating against the unequal incidence of direct and indirect taxation which pressed so heavily upon their burdened shoulders.

To condescend to particulars I would suggest: (1) that the medical man's house should be rated and assessed as a house of business; and (2) that the payments to sick and benevolent societies should rank with life assurance premiums and be deducted from income for taxation purposes.

Provision in case of sickness or poverty is as worthy of national encouragement as providing for early death—indeed, they are often linked together in one sad chain of misfortune. To obtain these slight concessions the profession must organise and become loudly vocal, and we look to the medical press to aid us powerfully to become so.

I am, Sirs, yours faithfully,
A. H. Bampton, M.D. R.U.I.
Ilkley-in-Wharfedale, April 10th, 1901.

"THE TEACHING OF ANÆSTHETICS."

To the Editors of The Lancet.

Sirs,—In The Lancet of April 6th, p. 1041, Lieutenant-Colonel Edward Lawrie, I.M.S., complains that he has been attacked "for hampering the important question of making the teaching of anæsthetics a recognised part of the medical curriculum by introducing side issues." It cannot fail to impress the reader of his remarks that his letter emphasises the justice of the strictures which have been passed upon him when he proceeds to give an entirely imaginary description of the clinical teaching of anæsthetics in the London hospitals. As long as 11 years ago my own fellow-students were most thoroughly taught and clinically trained by Dr. F. Hewitt at Charing Cross Hospital. After a series of lectures we administered a number of anæsthetics ourselves under his supervision, were encouraged to attend as many cases as possible, and were only granted a certificate of proficiency when he was satisfied that it had been deserved.

Dr. Hewitt's teaching began long before this, and has continued on the same lines to the present day. The anæsthetists at all the London hospitals with teaching schools now follow the plan of making the students themselves administer the ether and chloroform to as many patients as is practicable, so that Lieutenant-Colonel

Lawrie's burlesque account of the facts only weakens his other unsubstantiated statements His statistics (?) are as remarkable as the question he asks, "What is the use of calculating the ratio of deaths to population and not to the operations in which the various anæsthetics were administered?" when it is preceded by a statement that the deaths among his own dental chloroform administrations were *nil* in 15 years Perhaps it might be permissible to inquire whether he has administered chloroform in dentistry at all, as the absence of a number of *administrations* might conceivably result in an absence of mortality.

"*Hyderabad methods*" of inducing chloroform narcosis seem to have undergone a radical change since March 20th, 1899, when, according to Lieutenant-Colonel Lawrie's book on Chloroform, a death took place during the struggling stage of anæsthesia and he laid down the law "never to give chloroform while there is struggling and irregular breathing." "Formerly"—i e, previously to this date—he says, "there was always an element of chance and, consequently, of risk in the administration" "Hyderabad methods," then, were not so perfect from 1892 to 1899—in fact, for those seven years it would almost have been as safe to have inhaled chloroform at the hands of a London anæsthetist—but we can hardly expect Lieutenant Colonel Lawrie to admit anything involving so little prejudice —I am Sirs, yours faithfully,

H BELLAMY GARDNER, M R C S. Eng,
L R C P Lond,
Anæsthetist to Charing Cross Hospital; Assistant Anæsthetist to the Dental Hospital of London
Beaumont street, W, April 9th, 1901

To the Editors of THE LANCET

SIRS—Lieutenant Colonel E Lawrie makes the statement that in London "there is no practical teaching in anæsthetics worthy of the name' He adds his idea of what the teaching consists and again tells us how he teaches in Hyderabad It is perhaps a pity that before making such a sweeping statement Lieutenant Colonel Lawrie should not have ascertained what is really taught in London. At University College Hospital the students have actual control of, and responsibility concerning, the patient from the induction to the end of narcosis, being only supervised by the authorised instructor Careful and comprehensive notes are taken before, during, and after narcosis I have little doubt a similar course is adopted elsewhere The period of chloroformist clerkship is one month, which, as Lieutenant-Colonel Lawrie thinks, is more than sufficient for the average student I am, Sirs, yours faithfully,

Mortimer street, W DUDLEY W. BUXTON

"THE STATISTICS OF GASTRIC ULCER, WITH SPECIAL REFERENCE TO GASTRIC HÆMORRHAGE, ITS FREQUENCY AND FATALITY"

To the Editors of THE LANCET.

SIRS,—I fully agree with Dr Byrom Bramwell that the questions in discussion between us are of the greatest practical importance to the profession and I feel sure that Dr Bramwell's criticisms are advanced with the view of arriving at the real facts, which aim I also have only in view If, however, Welch's figures, based on observations on 32,052 necropsies, cannot be allowed as a basis on which to support arguments with regard to the frequency of gastric ulcer it is useless giving any further authority, for so far as I am aware no one has made observations on anything like such a series of cases, and we can only wait for Dr Bramwell's figures, which we shall hail with gratitude if they are based on post-mortem evidence As to the death rate in gastric ulcer I have not used the 50 per cent mortality suggested by some of the authorities named, but have halved that figure, which is considerably under the mean of the extremes, and I do not think that it is an exaggerated estimate to say that 1·25 per cent of the population die directly or indirectly as the result of gastric ulcer

I would once and for all point out that in my paper I never said that Leeds had a population of 500,000 or referred to Leeds itself except in the following words "Its importance will be better grasped if these figures are applied to the population of a city *like* Leeds, which for convenience I will take at 500,000"—taking the figure of 500,000 merely for convenience in working out the sums and referring to Leeds merely because its population nearly approached the number named and gave to the mind's eye a city of approximate size to the one referred to I am quite aware that the authorities I have referred to differ in their mode of calculation as to percentages of deaths from hæmorrhage, some referring to the percentage of deaths in all ulcers and others to the percentage of deaths in those ulcers that *bleed*, *but my own views are not indefinitely stated*, as the figures quoted by Dr Bramwell from my address show I said "7 per cent of deaths in cases of gastrorrhagia from ulcer will not be far from the truth. If this is worked out in the 500,000 population of a city like Leeds it means that of the 25 000 persons who have or who have had ulcer, 12 500 suffer from hæmatemesis and of these 7 per cent, or 875, die" Yet after making this quotation correctly Dr Bramwell *deliberately adopts other figures* in the very next paragraph of his letter, doubling the percentage of deaths from hæmatemesis, and he then proceeds to criticise the figures which he himself is responsible for.

In order that it may be quite clear both to Dr Bramwell and to those who are interested in the discussion I will put my figures succinctly I argued (1) that 5 per cent of the population suffer or have suffered from gastric ulcer, which therefore gives 25,000 in a population of 500,000, (2) that 25 per cent of those suffering from gastric ulcer *die directly or indirectly from the* disease, which gives 6250 in a population of 500,000, or 1 25 per cent of the population, (3) that 50 per cent of cases of gastric ulcers bleed, which gives 12 500 in a population of 500,000; and (4) that 7 per cent of cases of hæmatemesis from ulcer, or 3½ per cent of all persons suffering from ulcer, die as the result of the bleeding, which *gives 875 in a* population of 500,000, or 0 175 per cent of the whole population So far as hæmorrhage is concerned, if these figures are worked out for a year on the basis suggested by Dr Bramwell, that 20 05 per 1000 of the population of Leeds die annually from all causes, which means spreading the stated number of deaths over 49 87 years, or for convenience I would say 50 years, it means that in a population of 500,000 (875 – 50) 17 5 patients die each year from hæmorrhage due directly or indirectly to ulcer of the stomach

The following are the references which Dr. Bramwell asks for Müller, quoted by Savariaud (Thèse de Paris, p 51): "Of 127 ulcers, 37 hæmorrhages noted, of which 14 were fatal, which gives the great mortality of 11 per cent" Welch "Pepper's System of Medicine," vol ii Brinton: "Treatise on Ulcer of the Stomach and Diseases of the Stomach" Debove and Rémond "Traité des Maladies de l Estomac, Paris" "Ulcère de l'Estomac" Also quoted by Einhorn Steiner "Virchow and Hirsch's Jahresbericht, 1868," p 125 Quoted by Leube in Ziemssen's Handbuch and referred to in Savariaud's Thesis "In 110 cases there were seven fatal hæmorrhages, which gives 6 36 per cent" Lebert, quoted by Dreschfeld. "252 cases observed, 3 per cent *fatal from hæmorrhage*" Dreschfeld. "Clifford Allbutt's System of Medicine" vol iii, p 541 Rodman, *Philadelphia Medical Journal*, June 9th, 1900 p 1303: "Hæmatemesis occurs in at least 50 per cent of all cases of gastric ulcer, and many authorities estimate it as present in 80 per cent It is, too, fatal in 8 per cent of the cases in which it occurs, according to the conservative estimate of Leube. (*Archiv für Klinische Chirurgie*, 1897), and we cannot question that it is indirectly fatal in a much greater number of cases by anæmia and its remote consequences"

Until *Dr* Bramwell can furnish the profession with figures [illegible] distinctly prove or disprove these statements I [illegible]

[illegible]

Park square, Leeds April 6th, 1900 A W MAYO ROBSON

THE INDIAN MEDICAL PROFESSION.

To the Editors of THE LANCET

SIRS,—I was more than surprised to see in a late issue an unjust attack by your correspondent on the natives of India I regret that he should have been so short-sighted as to state that "the feeling in the service is that there are too many natives in it already, and that any further concession in their interest would be undoubtedly unpopular." As a matter of fact, it is a very high average if two Indians get in perhaps in a total of between 14 and 20. At each competition the Government do their best to exclude them by holding examinations in London. Notwithstanding this Indians risk the perils of the deep, leave their hearth and home, and everything that is near and dear to them, to spend a number of years in an inhospitable climate, and spend a large sum of money on the off-chance of succeeding in a proverbially uncertain competition, and that, too, in a foreign language. Yet they are grudged the few places which they now hold. Imagine the Chinese filling most of the hospital and service appointments in Great Britain How would the people here like to be told that the few Englishmen who wrested some appointments from the Celestials had done something which was unpopular and that "any further concession in their interest would be unpopular"? No, Sirs; the boot is on the other leg. If we are to make any complaint (which I do not make so long as a fair competitive examination is held in England and India) it is that there are too many Englishmen in the Indian Services. Your correspondent *further says that the Indian degrees are "not to be compared* to the British ones." Whose fault is it? No one has ever dared to say that the Indian intellect is a whit inferior to that of other nations. Therefore the fault must rest with those who mould that intellect. We want in India teachers to be recruited from all quarters, not, as is the present custom, to take them simply from the Indian Medical Service which thus enjoys a close monopoly. This system excludes some of the most brilliant amongst our profession who have no desire to go through an army medical examination. We can only appeal to fair-minded Englishmen to preserve the legitimate interest of an Englishman without robbing their Indian fellow citizens of their inalienable rights as judged by the chivalrous sense of British justice.

I am, Sirs, yours faithfully,

SARAT K. MULLICK.

New Cavendish-street, Cavendish-square, W.,
April 6th, 1901.

"THE ELIMINATION OF ARSENIC THROUGH THE HAIR."

To the Editors of THE LANCET.

SIRS,—You published in THE LANCET of April 6th, p. 1044, a letter from Dr. A. Dupré which refers to the possibility of arsenic obtaining entry into the hair through the medium of the perspiration emanating from the scalp. The fact that the experiments referred to in our article in THE LANCET of March 23rd, p. 854, were all made with recent hair, and the knowledge that our beer patients had ceased taking in arsenic for some little time previously to the samples being obtained, should be sufficient to show the unlikelihood of the hair being contaminated in this way. We may further point out, however, that the hair of all the arsenical patients was regularly washed, and that particularly in the case of the patient taking the drug medicinally this occurred every day.

Dr. George Pernet, whose letter you publish in the same issue, does not, we fear, thoroughly grasp the scope of our article. We were very careful to point out that the affinity of arsenic for the skin and its appendages is common knowledge, and we certainly made no claim to have discovered the "fact that arsenic is stored up in the hair and nails." We confirm previous observations and go a step further. We clearly show that arsenic can not only be detected in the hair of people taking the drug, but that the quantity in any given sample can be estimated with perfect accuracy by the method indicated in our paper, and further demonstrate the use which this knowledge can be put to as an aid to the diagnosis of arsenical poisoning. It is necessary that Dr. Pernet should discriminate between the value for scientific purposes of an accurate estimation of the quantity of arsenic to be found *in a weighed sample of hair and the mere detection* of the drug in this appendage.

We are, Sirs, yours faithfully,

E. KNECHT.
W. F. DEARDEN

Manchester, April 8th.

"THE ROYAL ORTHOPÆDIC HOSPITAL."

To the Editors of THE LANCET.

SIRS,—I am surprised that the secretary—who as an official of the hospital should, I think I am justified in saying, be publicly neutral—has obtruded himself into this matter. I am, however, glad because it enables me to acknowledge an error of information of which I might otherwise not have been aware, as I asked at the railway station for a copy of THE LANCET and could not get one. The secretary and the assistant secretary will tell you that I have always desired to be most accurate in this question of site, but unfortunately, I presume, through having read the letter without glasses, I overlooked a nought—a very important thing in figures, I admit. I have just re-read the letter and the word "sale" is not used, so I concluded that the offer was £1200 a year for leasing the Hanover-square part, as we have had several offers for leases. I readily apologise to you and all whom it may concern for that which everyone must see was a purely unintentional oversight. Obviously no one would desire to prejudice a good cause by purposely making incorrect statements. But this oversight in no way affects the real points at issue which are: (1) that £37,700 is considerably below the present value of the site; (2) that there is not the slightest necessity to part with our valuable property, which is increasing in value yearly as testified by experts; (3) that we are living rent free; (4) that partially building on our present site, even if we borrowed the money to do so, would increase the hospital's income £500 a year; and (5) that if it were necessary to do so we could rebuild the entire hospital on its present position, a magnificent one, for some £12,000, according to a letter which I read at the annual meeting in February last from a well-known firm of architects who have built another hospital. All these great advantages it is proposed to sacrifice for no sufficient reason which has yet been furnished in order to enter on a career of very uncertain future and full of grave and totally unnecessary risks. In my judgment and that of other members of the committee and several governors this is not the cautious policy which should govern so very serious a matter as the moving of a long-established hospital and the selling of its only property.

About two years ago Sir J. W. Ellis valued the site at £36,000; about a year ago two experts valued its leasehold price at £1500 a year; and at the annual meeting last year I read a letter from a well known firm of valuers stating the then value of the site to be £42,000. Since that time the value of the site has enormously increased and will increase, as proved by the fact that two years ago only £28,000 were offered and now an offer of about £10,000 more is made and accepted so far as the majority of the committee is concerned. Some two years ago the adjoining property, which is only two feet wider, sold for between £56,000 to £60 000, and shortly before that the property extending from Hanover-square to Oxford-street, facing that which is now being built on, fetched, I am informed, some £65,000 to £70 000. In view of the enormous increase in value of property in this position I think anyone caring to inquire will find that the market value of our site is from £45,000 to £50,000, and to let some £2000 a year, and its real value much greater. But as there is not the slightest compulsion to sell, as £2000 have been spent in putting the hospital into thorough sanitary condition, as from the point of view of further enhancing the value of the hospital's property we should remain where we are and for several other important reasons, we have nothing to do with market value or the highest offer Our duty clearly is to hold our piece of land and to increase our income by rebuilding the Oxford-street portion, or to leave well alone. I should add that though the choice of a proper site for a hospital is obviously a professional matter the views of the medical staff have been ignored, and though I have repeatedly given the committee credit for doing what they think to be best—though many believe them to be grievously mistaken—they have never even hinted that I and those who agree with me have the best interests of the hospital at heart. I have been and am fighting a very *difficult battle against rich men and as a consequence* have made many enemies, but I am conscious that I am doing that which can be shown to be best for the hospital. I have had valuable advice from experts in accounts and in building operations and valuations, and until the arguments which I have adduced can be controverted—and hitherto they have not been—it is my duty, I believe, to continue the contest, though I am fully aware that there are more kicks than thanks in the matter As to the secretary's remarks about the conduct of the committee I have repeatedly stated that, if forced, I reserved the right to do that which I thought or was advised was best in the hospital's interest, and should you desire further information on this point I shall be happy to furnish it

I am, Sirs, yours faithfully,

April 8th, 1901. THE SENIOR SURGEON

KOVCRYNSKI AND JOWOVSKI'S TEST.

To the Editors of THE LANCET

SIRS,—I should feel obliged if you or any of the readers of THE LANCET will tell me if they have found the above test for blood in the fæces a reliable one, and, if so, what special precautions are necessary in applying it My reason for asking is that on two or three occasions blood was declared present in specimens submitted to this test, whilst portions of the same evacuations submitted to possibly this amongst other chemical and microscopical tests by other persons gave negative results as far as blood was concerned The case is one of supposed duodenal ulceration with dark scybalous motions I am, Sirs, yours faithfully,

April 9th, 1901. M D

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT)

The Census in India —The Plague Epidemic,—The Pasteur Institute — The Tata Research Institute — Victoria Scholarships to Provide Native Midwives —Malta Fever — Malaria Epidemics

THE further census returns show more unexpected alterations The Bombay Presidency has actually declined by 1,500 000 It is this province which has suffered so severely both from plague and famine Bombay city has declined by 50,000 The proportion of males to females—about two to one—is the same as in Calcutta During the past four years in Bombay over 100 000 people have died above the normal rate and the birth rate has been reduced owing to the absence of females Calcutta, on the other hand, has increased enormously, the population in the municipal area now amounting to 843,487 The suburban areas with Howrah bring the total population on the banks of the river to over 1,000,000 The city of Karachi has increased by 10,000 and shows a population of 104,856 The city of Rangoon surpasses in growth all other cities and shows an increase of over 50 000 during the past ten years It has now 232 326 inhabitants The census of the aborigines in the Andaman Islands has been taken for the first time It shows a population of 24,499 Some considerable difficulty was experienced at one or two of the islands and attacks were made on the registering parties The population is probably under estimated.

Again this week I have to record a great rise in the pla[illegible] there were 7879 deaths Of [illegible] occurred in Bengal and 207 [illegible] disease has made its appearance in Kashmir, where several deaths have been reported The deaths in the various towns and districts chiefly affected are as follows: Bombay city, 1275; Calcutta, 557, Patna, 2070, Belgaum, 223; Dharwar, 51, Thana, 96; Surat, 24; Saran, 974; Monghyr, 358, Gya, 685, Durbhanga, 126, and Shahabad, 147 In the North-West Provinces and Oudh, including the city of Benares, there were 417 deaths from plague In Calcutta the disease is rapidly increasing and the published returns for the first two months of the year show a case mortality of over 90 per cent Of the total attacks about 20 per cent were seen by the authorities during life, the remainder being estimated after inquiry as due to plague Very few cases go to hospital—the people die in their own homes Beyond disinfection of premises no o [illegible] are being carried out In [illegible] to have attained its height [illegible] of the city is very heavy One district gives 345 per 1000 per annum, and 11 districts are over 200 All races except Europeans show a high mortality.

The work of the Pasteur Institute at Kasauli has proved very successful Since its opening 173 patients have been treated with results equal to those obtained at the Paris institution There have been as patients 15 British officers and 45 soldiers and one native officer and nine men, also 27 European civilians and 73 native civilians Many of the natives have been well educated men

The Tata Research Institute has had a severe rebuff in Professor Ramsay's report Without more money the institute could not be made to the scale of the original proposals Professor Ramsay unhesitatingly selects Bangalore as the site of the proposed institute, but expresses the opinion that unless the committee obtain a substantial addition to Mr Tata's donation Mr Tata would be well advised to withdraw his offer, The report is very full and considers the branches of learning to be pursued and the industries likely to be benefited as well as the financial prospects That it would be of value if established there can be no question, and it is earnestly to be hoped therefore that the means will be forthcoming.

Lady Curzon's fund for founding Victoria scholarships which will facilitate the training of Indian midwives promises to be a success Some of the wives of native princes and Indian ladies have supported it freely The scheme is an excellent one and will probably have marked results in lessening the sufferings of Indian women of all classes The mortality of women in childbed is at present great and puerperal fever is extremely common These scholarships once founded will endure and there will be no necessity for periodical appeals

The existence of Malta fever in India has been already alleged on several occasions Now it has been shown to exist in the Swat Valley An American writer has also recently stated that it is not an uncommon disease in Manila

Malaria epidemics have been recorded at different times, but until the establishment of the mosquito theory there was no satisfactory explanation to account for them It is suggested that an unusual rainfall in a naturally dry area creates pools in which the mosquitoes breed freely and that an epidemic of malaria is accompanied by a swarm of mosquitoes Where the fall of rain is excessive pools and other collections of water are washed so boisterously that the breeding-grounds are destroyed and thus it is not until after the rainy season that malaria becomes prevalent The outbreak of malarial fever in the Punjab last autumn is given by Colonel Bamber as an instance. There was an unusual rainfall last year, and notwithstanding the dry climate there is always a certain amount of malarial fever, so that when the mosquitoes had additional opportunities to breed they had material to disseminate the disease On the other hand, normally wet places might prove more dangerous during a comparatively dry season or an unusually small rainfall

March 15th

The Census of India —The Continued Famine and the Scheme for Future Relief Works —The Epidemic of Plague — Short Sight amongst the Natives

The rough results of the third general census of India taken on the night of March 1st have been published with wonderful promptitude The full totals were published a fortnight after the enumeration and they show that the population of India, including native States and territory enumerated for the first time, has increased from 287,317,048 as estimated in 1891, to 294,266,702, or 2 42 per cent Deducting the tracts enumerated for the first time the increase is reduced to 4,283 069, or 1 49 per cent This is a great decline from the 11 2 per cent in the previous decennial period There has been a diminution of 4 34 per cent in the population of native States, which is now estimated at 63 000 000 On the other hand, the population in British India has risen by 4 44 per cent and is now estimated at 231,000,000. The small rate of increase for India as a whole is unexpected and is attributed to successive famines and the plague The heaviest decreases are recorded in Rajputana, Central India, and the Bombay native States which have recently suffered so severely from the famine and which are now estimated to have lost at the lowest computation no less than 5,000,000 of their inhabitants The Bombay Presidency records a decrease of 627,000 and the Central Provinces a decrease of nearly 1,000,000. Bengal, on the other hand, shows an increase of 3,500,000, Madras an increase of 2,500,000, and the Punjab and Burma an increase of 1,500,000 each. The following totals for the various provinces and for the native States are now published:—

INDIA.

—	Males.	Females.	Total.
Ajmere-Merwara	250,721	225,609	476,330
Assam	3,142,561	2,979,640	6,122,201
Bengal	37,376,438	37,336,582	74,713,020
Berar	1,394,107	1,358,211	2,752,418
Bombay	9,595,805	8,988,691	18,584,496
Burma	4,705,094	4,516,067	9,221,161
Central Provinces	4,841,832	5,003,486	9,845,318
Coorg	100,214	80,247	180,461
Madras	18,853,024	19,355 585	38,208,609
North-west Provinces and Oudh	24,620,961	23,075,363	47,696,324
Punjab	12,095,711	10,353,773	22,449,484
Baluchistan...	445,603	365,208	810,811
Andamans	18,581	5,918	24,499
Total (British India) ...	117,440,652	113,644,480	231,085,132

NATIVE STATES.

—	Males.	Females.	Total.
Hyderabad	5,664,772	5,510,125	11,174,897
Baroda	1,007,944	942,983	1,950,927
Mysore	2,796,165	2,742,317	5,538,482
Kashmir	1,544,412	1,361,761	2,906,173
Rajputana	5,167,640	4,673,392	9,841,032
Central India	4,357,225	4,144,658	8,501,883
Bombay States	3,504,975	3,386,716	6,891,691
Madras States	2,100,313	2,090,009	4,190,322
Central Provinces States	932,823	1,000,673	1,933,496
Bengal States	1,899,704	1,836,011	3,735,714
North-west Provinces States	411,897	387,778	799,675
Punjab States	2,417,932	2,020,884	4,438,816
Burma States	609,695	618,665	1,228,460
Total (Native States) ...	32,465,697	30,715,872	63,181,569
Total (all India)...	149,906,349	144,360,352	294,266,701

The following table shows the net increase and decrease of population, as distinguished from the percentage of increase or decrease, in the various provinces of India:—

Assam	+688,000	North-west Prov. States	+7,000
Bengal	+3,366,000	Punjab States	+175,000
Sind	+341,000	Ajmere-Merwara	−66,000
Upper Burma	+487,000	Berar	−144,000
Lower Burma	+962,000	Bombay Proper	−627,000
Coorg	+7,000	Aden	−2,800
Madras	+2,578,000	Central Provinces ...	−938 000
North-west Provinces...	+558,000	Hyderabad	−362,000
Oudh	+233,000	Baroda	−464,000
Punjab	+1,582,000	Rajputana	−2,175,000
Mysore	+594,000	Central India States ...	−1,816,000
Kashmir	+362,000	Bombay States	−1,167,000
Madras States	+489,000	Central Provinces States	−177,000
Bengal States	+439,000		

The famine relief figures for last week show that there are still 220,400 persons on the lists, of whom 176,400 are in Bombay and 39 400 are in native States. These returns show a decrease of 3000 compared with the preceding week. A resolution of the Government recently published says that there is a general consensus of opinion that famine labour might be turned to better advantage if more systematic endeavour were made in ordinary times to plan out works which, though they may not be strictly remunerative, would at least be of some permanent utility. Great irrigation works on a larger scale are required in many districts. It is proposed to construct works, chiefly in the Punjab and Sind, calculated to irrigate nearly 4,000,000 acres. Irrigation works of a "productive" character will also be extended in the famine areas and will be commenced during the coming winter, and elaborate surveys and preliminary estimates will be prepared for future operations. It is evident that the present Viceroy is taking active steps to combat the difficulties of any future famine.

The plague figures still mount up. The number of deaths throughout India for the week ending March 16th has reached a total of 8829, against 7700 for the previous week and 4725 for last year. Bengal alone reports 4871 deaths. The disease, hitherto confined to the western districts, is spreading to others. Patna district records 2529 victims, Saran 1291, and Monghyr 431. The plague mortality in Calcutta has risen from 557 to 819, the total attacks being nearly 1000. The disease is increasing in the North-west Provinces, and is spreading in Ghazipur, Ballia, Jaunpur, and Benares, so that there is an area of large extent in the central Gangetic valley which is attacked. The area of greatest severity is shifting, and curiously the country intervening between the boundaries of Bombay and Benares is quite free. Bombay city during the past week records 2492 deaths from all causes and 1203 deaths from plague. The outbreak in that city seems to be at its height. Karachi is showing a rising mortality, and there are many more villages in the Punjab which have been recently attacked. Altogether the outlook is gloomy. So far inoculation seems to be the chief successful agency in controlling the disease, but it is not sought after. Neither in Bombay city nor in Calcutta is it being practised except to a very limited degree, but in the Patna district and in the Punjab it is being taken up readily. It is the old story of shutting the stable door after the horse has been stolen.

The subject of short sight among the natives of India has been recently commented upon by Captain Elliott. He describes the natives as preeminently a studious race and says that they carry their worship of book-learning to a fault. He states that the defects of the eye among Indian children greatly outnumber those among European children, "for not only have they the same anomalies of refraction to cope with but also the results of small-pox and various forms of ophthalmia." He thinks that India will not escape the evil which has appeared in every great centre of education in the world. This short sight increases with the age of children and is almost absent in the case of the younger pupils. Notwithstanding the improvement in schoolrooms and methods of instruction the evil even amongst the nations of the West still continues and the danger, therefore, to the Indian native from his increased book study has become serious. Captain Elliott's warning is very opportune. The increased use of glasses in India, especially by the Parsees, is a matter of daily observation.

March 23rd.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Manchester and Salford Sanitary Association.

THE annual meeting of the Manchester and Salford Sanitary Association was held on March 29th in the Town-hall, Professor J. Dixon Mann being in the chair. The report dealt with lamp explosions, horse ambulance for the city, the price of gas, the proposed State Public Health Department, the proposed hospital for cases of infectious disease, cottage baths, the improvement of slums, and beer-poisoning. If the power of the association were in proportion to its zeal and goodwill in the cause of sanitation there would soon be an improvement in the public health. It is indeed remarkable how much has been done in educating public and municipal opinion with very small pecuniary support. The income last year was just a little over £140. The Smoke Abatement League—affiliated with the association—referred in its report to the recent increase in the price of gas as a retrograde step on the part of the Corporation. It checked and delayed the use of gas instead of steam as a motive power and instead of coal for heating and cooking purposes, and hence delayed the greater freedom from smoke and the more cleanly state of the air which would result. The cheapening of gas would lead to its greatly increased use by those requiring power on a small scale and a small steam-engine is a greater smoke producer in proportion to the work it can do than a large one. It would also ensure the full use of the gasworks, even though electric lighting should become cheaper and more popular for domestic use. Salford for years has lagged behind Manchester in its efforts to lessen the smoke nuisance, but Mr. C. H. Tattersall has recently given a warning to offenders, and if the Salford Health Department should become as active in its repression as the Manchester Corporation Committee there would be more sunshine and brighter days in both these smoke-begrimed towns. Professor R. B. Wild proposed a resolution approving of the work of the association, the Smoke Abatement League, and the Ladies' Health Society which is always doing good work. This was seconded by Dr. Sawers Scott. But as towns grow rapidly, Canon Richardson did well to draw attention to the increase of "small property" in Fallowfield and Levenshulme, where, in his opinion, slums were being manufactured which would in time be as great an evil as those in the city. It is easy to make slums, even in the open country. A builder will run up a few rows of thin-walled cottages that prop each other up, in close proximity or back to back, stuck on the bare ground without drainage and with very imperfect sanitary arrangements, and the people who gravitate to such shelters will soon make them fairly entitled to be called slums. It has often been done, and in spite of building laws will no doubt be done again. Dr. Vivian Poore gave an interesting address on the sanitary advantages and disadvantages of the modern city. He advocated the burial of organic matter and said that if it were thoroughly carried out there would be fewer house flies and rats, and that "it should serve as an object-lesson to the whole country that the value of Carrington Moss had risen from 1*s.* to £2 10*s.* an acre by the addition to the soil during the last nine years of the sewage of Manchester." This is true if the word "night-soil" is used instead of sewage. Professor Dixon Mann was elected chairman of the committee and Dr. F. J. H. Coutts an honorary secretary of the association.

Views on Scarlet Fever.

In the annual report as to the health of Haslingden Dr. J. A. Harrison, the medical officer of health, has had the courage to express views which, if held by others of his brethren, are not always given to the world. He says he is of opinion that the best thing that can happen to a child is to have scarlet fever whilst it is young and when life is not of the same vital importance as after it has become a father or a mother of a family. If he has not had the disease a person may contract it, and, "as a general rule, children have it in a milder form than adults and are more likely to recover"

Workhouse Nursing

Mr. H. Jenner-Fust, Poor-law inspector for Lancashire, Westmorland, parts of Cumberland, and the West Riding of Yorkshire, in his latest return of the number of workhouse inmates in his district under medical care at the beginning of this year, exclusive of imbeciles and epileptics in special wards, says that the increase of nurses has kept pace with the increased number of sick, but that in several instances there was great need for more night nurses and for the "lessening of the number of paupers employed under the name of attendants." In the Manchester township the patients were 1064, with 78 day and 22 night nurses in attendance Chorlton Union had 746 and 49 day and 24 night nurses Five day and two night nurses were in charge of 147 patients in the Prestwich Union, whilst in the Salford Union Hospital at Hope 495 patients were cared for by 31 day and 11 night nurses. The Lancashire workhouse patients at the beginning of January were 9374; the nurses numbered 744, in addition to 148 pauper assistants.

The King and the Manchester Royal Infirmary.

A letter from Whitehall was received on April 4th at the Manchester Royal Infirmary in which it was stated that the King had been pleased to accede to the application of the Board of Management that the institution be designated the Manchester Royal Infirmary, Dispensary, and Lunatic Hospital or Asylum. The letter also sets forth that the application of the board for the continuance of Royal patronage has been referred to the Keeper of His Majesty's Privy Purse.

Heaton Park.

Manchester seems to be within measurable distance of purchasing Heaton Park and when one thinks of its poverty in large open spaces as compared with many other cities and of the rapidity with which its suburbs are becoming covered with bricks and mortar one cannot but feel that it would be a calamity if the opportunity of securing it were lost. It contains about 680 acres, is elevated, its surface is undulating, and it is very near the city boundary. It is, moreover, the last open space of large extent "with any pretentions to natural beauty in the outskirts of Manchester that is still unspoiled by the builder." The corporation seems to be in earnest this time and yet when the Trafford Park fiasco comes to mind the fear will arise that after all they may let it slip The hope expressed by Alderman Southern that "a similar mistake would not occur in this instance" will be widely echoed in Manchester. It may, perhaps, be assumed that syndicates and those through whom they act are not troubled about questions of ethics.

April 9th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS)

The late Deputy Surgeon General Fleming.

THE death occurred in Edinburgh on March 25th of Dr. Andrew Fleming, Deputy Surgeon General Indian army. Dr. Fleming was the son of Dr John Fleming, Professor of Natural Philosophy in the University of Aberdeen, and afterwards Professor of Natural Science in the New College, Edinburgh The late Dr Andrew Fleming obtained the degree of M D. in Edinburgh University. When assistant surgeon of the 4th Regiment Punjab Cavalry he was recommended to the Indian Government as a geological surveyor by Sir Roderick Murchison. He drew particular notice to himself by his report on the geological structure and mineral wealth of the salt range in the Punjab, published by the Government of India 1851–52 He also contributed to our knowledge of the fossil fauna of India. On retiring from active service he took up his residence in Edinburgh. He is survived by a widow, three sons, and three daughters. His sons are all at present engaged in His Majesty's service abroad.

Glasgow University.

The half-yearly meeting of the general council of Glasgow University was held on April 3rd On the motion to adopt an appropriate address to the King the Rev David Macrae desired to enter a protest against the selection of the title "King Edward VII" on the ground that it implied that the six English kings of the same name had ruled over Scotland and was therefore historically inaccurate The Principal, however, declined to accept the protest A similar position was taken up recently at the Convention of the Royal Burghs, the objector here being Dr Donald Munro, formerly lecturer on Forensic Medicine in the University of Glasgow. The business of the General Council on the present occasion was mainly concerned with the arts faculty. The report of the Business Committee included an elaborate argument in favour of extending more complete university recognition to modern languages This was adopted by the council and an endeavour is to be made to secure simultaneous action in all the Scottish universities. The committee having charge of the erection of the Caird Memorial Window reported the completion of their task and announced that a balance of nearly £50 had been spent on the purchase for the library of some theological works to be especially associated with the late Principal's name During the last week the professional examinations for degrees in medicine have been held The completion of these has left the medical quadrangle empty The summer session is to commence in a fortnight's time and some special arrangements of examinations and other work are contemplated in order to permit the doing of full justice to the academic ceremonies which are to celebrate the occurrence of the University's ninth jubilee.

St Andrews University.

The annual graduation ceremony which closes the winter session took place on April 2nd The ceremony was distinguished at the outset by the fact that the historic "cap" which formally converts the graduand into a graduate, was at the critical moment not to be found Fortunately it was soon discovered and all then went well The honorary graduates included Mrs Agnes Smith Lewis and Mrs. Margaret Dunlop Gibson of Cambridge, these being the first ladies to receive the compliment of an honorary degree from this university. Professor Alexander Agassiz of Harvard College and Professor J. A. Ewing of Cambridge also received the honorary degree of LL.D.

Small-pox in Glasgow.

The new cases of small-pox admitted during the week number 50. The total under treatment in hospital on April 7th was 234. The revaccination crusade continues to be energetically pressed and on the whole with encouraging results. The epidemic has been so wide in its distribution and the practical handling of it has presented such unusual difficulties that it is impossible to expect a sharp or sudden termination of its course. The diminution of cases in hospital shows that steady progress continues to be made. At a recent meeting of the Lunacy Board an attempt was made to suggest to the General Board that the condition of the small-pox epidemic justified the re-opening of the asylums to friends and other visitors. Dr. Bruce spoke strongly against this proposal which after discussion was negatived.

Medical Dispute at Kilmarnock.

An unfortunate dispute leading to strained relations has for some little time existed between the medical officer of health of Kilmarnock on the one hand and the Public Health Committee and sanitary inspector on the other. The medical officer has also had differences with some of his brother practitioners regarding the notification of cases of infectious disease. The whole of the questions involved have been brought to the notice of the Local Government Board and are now to be the subject of official inquiry. This is to be held in private.

April 9th.

IRELAND.

(From our own Correspondents.)

The Royal College of Physicians of Ireland.

His Excellency the Lord Lieutenant of Ireland has accepted the invitation of the President of the Royal College of Physicians of Ireland to attend a banquet which will take place at the College on April 29th.

Lecture by Dr. Kendal Franks.

A lecture of exceptional interest was delivered on April 9th, in the town-hall, Blackrock, by Dr. Kendal Franks, the subject being "From Cape Town to Pretoria with Lord Roberts." Dr. Franks was a consulting surgeon to the forces in South Africa and a member of the headquarters staff.

Alleged Murder by a well-known Medical Practitioner.

Much unpleasant sensation has been caused in Ireland by the tragic death of the wife of Mr. Edward T. French, F.R.C.S.Irel., of Glasson, co. Westmeath. It would appear that while labouring under an attack of maniacal excitement Mr. French attacked and stabbed his wife who died after a few minutes. The verdict of the coroner's jury was that the deceased died from wounds inflicted by the prisoner while under the influence of drink. A post-mortem examination made by Mr. H. Moorhead of Moate revealed a wound between the eighth and ninth ribs which penetrated the liver and reached as far as the heart. The deceased lady belonged to a very well-known family and was popular in society and in the hunting-field. Mr. French also, who is now lodged in Mullingar gaol, is a member of a highly respectable family in the west of Ireland.

Ulster Medical Society.

At the sixth meeting of the session held in the Museum, Belfast, on April 4th, Dr. H. L. McKisack called attention to the more extensive use that might be made of the society for providing nurses for the sick poor in Belfast. Dr. J. McLiesh read notes of a case of Cyanosis, and Dr. Lorrain Smith and Dr. McKisack described a case of Plethora associated with Adherent Pericardium.

County Down Infirmary.

From the treasurer's statement it appears that the total expenditure of this infirmary for 1900 was £1537 13*s*. 6*d*. After payment of accounts there is a balance of £281 16*s*. 7*d*. There are 454 intern patients, which number, with 36 remaining over from the previous year, makes a total of 490. The average number of beds daily occupied was 34, and the average cost of each patient was 2*s*. 5¼*d*. per day. The number of extern patients was 536.

Irish University Education.

At the present time the subject most commonly discussed in Ireland is that of the university question and it is felt that the whole problem has been thrown into the melting-pot by the action of the Government in appointing a Royal Commission to consider the matter. That the question is a most perplexing one is self-evident to anyone living in Ireland and already the Government must feel this, for even in reference to the Commission two points are being very freely debated: first, what are the questions to be considered? and secondly, who are to be the members? The Lord Lieutenant of Ireland, in his speech to the deputation asking for an inquiry into Irish university education, seemed to imply that Trinity College would be excluded from consideration; but this view has been received with adverse criticism, and resolutions have been sent to Lord Cadogan demanding that the affairs of Trinity College should be discussed, and, in truth, it is hard to understand how anyone can discuss university education in Ireland without referring to the Dublin University. To exclude such a subject would, indeed, make the results of the work of the Commission of very little import. Again, the question of who are to be the Commissioners must be a most difficult one. Two things are clear. They should be experts in education and they should not have committed themselves to any of the various views put forward as settlements of the Irish university question. If these matters are not attended to the labours of the Commission will, indeed, be in vain. I think that if a full inquiry is made, and if proper persons are selected as members of the Commission, a great deal of good will come out of this inquiry, and the proper attitude for all Irishmen should be to try to forget those sectarian and religious differences which have wrought so much evil in the country and to endeavour to evolve some solution of the university question which will bring contentment to the country. All parties feel that the present state of affairs is well nigh intolerable, and the total uncertainty prevailing as to the ultimate settlement of the question is in the meantime doing incalculable harm.

Water-closets or Privies.

A curious case came before the county court judge at the Lurgan Quarter Sessions on April 1st on an appeal from the local magistrates, who at the instance of the Lurgan Urban Council ordered a citizen of that place to provide properly constructed water-closets, dry ashpits, sufficient house drainage, and gulley-trap connexions, and to tile or to concrete the yards. The points at issue were, was the substitution of water closets—Lurgan has a splendid water-supply—for privies necessary and had the magistrates power to order such. Dr. S. Agnew (medical officer of health of Lurgan) and Sir Charles Cameron advised the substitution of water-closets and stated that the present sanitary arrangements in the houses were unsatisfactory. The latter made a remarkable statement—that "the reason why the typhoid fever rate of Belfast was higher than that of any other city or town in the United Kingdom, exceeding even Dublin, where it was mild in comparison, was the feeling against water-closets in Belfast." For the appellant, Dr. Charles O'Neill and Dr. H. R. Torrens of Belfast gave evidence that the privies were not nuisances in the particular cases referred to, nor were they, in their opinion, injurious to health. In giving judgment Judge Kisbey stated that in order to satisfy a court of appeal the onus was thrown on the respondents to satisfy the court that a nuisance existed. Therefore, going on the evidence of these Belfast gentlemen that no nuisance existed he would have to reverse the magistrate's decision. He refused costs in the case. The lesson of this judgment is that local sanitary authorities in Ireland cannot enforce the substitution of water-closets for privies. If the latter are defectively constructed or improperly kept they may enforce repairs or rearrangements, but property-owners cannot be compelled to convert privies into water-closets even in a town like Lurgan, where there is an unfailing water-supply (Lough Neagh). Evidently some change in the law is needed.

April 9th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Treatment of Sciatica by Intra arachnoidal Injections of Small Doses of Cocaine.

AT the meeting of the Hospitals Medical Society held on March 29th M. Marie and M Guillain communicated the details of a case in which they had employed the above treatment The patient was a man, aged 35 years, who had suffered for the past eight days from right-sided sciatica of medium intensity for which no definite cause could be found. They gave him an intra arachnoidal injection of five milligrammes of cocaine. Three minutes after the injection the patient felt that the pain was much diminished, and six minutes after it had entirely disappeared and nothing remained but slight traces of Lasegue's sign. The patient then and there insisted on getting up, saying that he was cured. He dressed, went out, and he walked about all day. At 4 30 P.M. the pain came back, but only in a slight degree; the patient passed a good night, and the next morning, although he had a certain amount of pain, he said that it was nothing compared to that which he had suffered the day before. The relief has persisted to the present time M Marie and M. Guillain reminded the meeting that at the meeting of the Neurological Society held on March 7th, M. Achard had reported three cases of sciatica treated by injections of cocaine, but the dose was from one to two centigrammes. He seemed to think that a certain amount of anæsthesia must be produced in the legs if the treatment were to be successful. In their own case the dose was much smaller and did not exceed five milligrammes; relief was rapidly brought about and no cutaneous anæsthesia was produced If the foregoing facts definitely show that such small doses are efficacious this treatment will present manifest advantages, for there will be much less chance of those ill-effects arising which are sometimes noticed after the intra-arachnoidal injection of larger doses of cocaine.

Dramatic Representations in Lunatic Asylums.

Only recently a most interesting fête was held at the Lunatic Asylum of Villejuif. For some years past various artistes have gladly given their services for the amusement of asylum patients, but at Villejuif the asylum staff are not content with amusing the patients by the recollections which the plays call up, but they are anxious that the plays should be the work of the patients themselves. The text of the first pièce given on this occasion, *L'Agence Beauminet*, was written by a patient, the music was composed by another, while the whole of the costumes, decorations, &c., were the work of *costumiers* and the like who were patients. Every player looked after his own dress, and all the players were patients. One of the medical staff was appointed to act as stage manager and to guide all these good intentions into the right paths. It could not be denied that the art exhibited was somewhat elementary, but compensation for this was found in the life and spirit of the acting. One somewhat curious fact was noted by the medical staff—namely, during the time that the minds of everyone in the asylum were fully taken up with the great event mental crises were very rare. In the case of one patient, a certain "Madame le Diable," who only a month previously had had a terrible outbreak, the wish to act and to be able to be admitted to the *troupe* was so strong that it literally cured her. The professional playwrights decided, however, that they would edit the lunatics' work.

Taxation of Medical Men Practising at Watering-places.

An interesting debate took place in the Senate on March 27th on the discussion of a taxing Bill (*loi des patentes*) An amendment standing in the names of M Pozzi and M. Pédebidou which was accepted by the committee proposed that medical men who practised only at spas and watering-places and nowhere else should be assessed professionally (*payer l'impôt de commerce*) only in the watering-place where they practised during the season and not in the town where they lived for the rest of the year. M. Payolle, director-general of direct taxation and a Government commissary, opposed the amendment, alleging the following reasons for his action: (1) all business men are assessed not only for their business premises but also for their private residences; and (2) a watering-place practitioner who lives in Paris nine months out of the 12 spends profits there which he has easily made in the three months of his stay at the watering-place, and it is only fair that he should be taxed for the comfort and luxury in which the profits of his watering-place practice allow him to live. The Senate, however, thanks to the persevering efforts of M Pédebidou, did not agree in this view and decided that medical men could not be considered as being in the same class with others who have to pay a *patente* It accordingly passed the following resolution:—

[illegible]

man, but it would be still more gratifying to see the motion put forward by M Labbé accepted—namely, that the business tax (*l'impôt de commerce*) should not be levied except upon professional premises It is anomalous that medical men with large families who have of necessity to have a big house should be taxed much more highly than those who live just as well and yet are able to do with quite a small flat (*petit entresol*)

April 9th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Examination for the Government Medical Service.

NEW regulations concerning the examination for the Government medical service have just been issued. Medical men desiring to enter this service may present themselves for examination either two or three years after becoming qualified, according to the place obtained by them in the State examination. They have to produce certificates of attendance at lectures on forensic medicine, of attendance at a lunatic asylum for at least six months, and of having done practical work in a dissecting room, in a public health laboratory, and in an institute for forensic medicine at a German university for at least three months. Candidates must write two theses, one on a question of public health and the other on a question of mental pathology or forensic medicine The practical examination is divided into the following four parts. 1. Medical legislation: candidates must have a knowledge of the laws concerning public health, the regulations for the Government medical officers, &c. 2 Hygiene: candidates have to make an investigation on some matter of public health and to give a short explanation of the methods which they have employed 3 Forensic medicine: candidates have to examine an injured person and to draw up a detailed written report; they have also to make a post-mortem examination and to give an opinion as to the cause of death; finally, they have to prepare microscopical specimens and to describe them. 4 Mental diseases: candidates have to examine an insane person and to give a certificate on the case. Obviously the new regulations will not meet with general approval, though they are in accordance with the reform of the public health service already described in THE LANCET. It is a mistake to combine the functions of health officer and medical expert at law courts and to require from a medical man that he should have a thorough knowledge both of hygiene and of forensic medicine as well. The "reform" has, however, become law and the Government medical officers will therefore probably continue for a long time to hold this combined office.

Extension of Clinical Study in Berlin

The newspapers report that the Minister of Public Instruction has asked the Berlin Municipal Council to consent to one of the municipal hospitals being used for the clinical teaching of medical students When this event takes place it will mean the beginning of a revolution in clinical teaching Hitherto official clinical lectures have been delivered exclusively in the Royal university clinics which belong to the university and are under State control, the office of the director of the clinic being invariably combined with an ordinary professorship in medicine, surgery, obstetrics, &c. It is obligatory on medical students to attend the lectures of these professors, because they alone are entitled to give the certificates which are necessary for admission to the State xamination. The number of patients attending these linics, though considerable, is by no means sufficient for he increasing number of students and the practical work vhich a medical student is required to perform there ccording to the regulations has become little more than nominal. In the course of a semester the clinical "practicant" is asked once or twice during the clinical lectures to examine a patient in presence of the professor and the assembled students, and to answer some questions on the case. This is, so far as Berlin is concerned, the whole of the practical work for which opportunities are officially afforded by the university. Obviously this is far from sufficient for a man who intends to enter upon practice on the completion of his studies and the great majority of students have therefore tried to supplement their practical training by attendance on private practical courses. Such private courses have been in existence for a long time, not only in the university clinics but also sometimes in other hospitals and in private clinics, but they have not had any official connexion with the university. Undoubtedly the Minister of Public Instruction is quite right in trying to procure a wider field of clinical training for the Berlin students by bringing the other great hospitals into connexion with the university. The medical wards of the Moabit municipal hospital have in the first place been chosen for this purpose, and both the chief physicians of the hospital have been requested to deliver official lectures in clinical medicine to the students. As the hospital is not provided with a lecture-room it is reported that a large amphitheatre will be constructed on the premises on behalf of the university. It will be interesting to know whether the right to deliver official clinical lectures and to give certificates will be granted to the present chief physicians only or whether it will be connected with their office and thus be transferable to their successors. Similar arrangements will be made in other large hospitals, and the system of clinical teaching will probably come to resemble that of the Paris hospitals, which have always been used for clinical instruction under the control of the medical faculty of Paris.

Professor Virchow.

The eightieth birthday of Professor Virchow, the Nestor of medical science in Germany, will be celebrated this year. In honour of this event a committee consisting of the leading medical men of Germany and abroad, of other *savants*, and of men prominent in various ways, proposes to collect a fund to support the Rudolf Virchow Stiftung, an institution for the promotion of scientific research founded in 1881 on the occasion of the professor's sixtieth birthday. The document embodying the proposal has received about 600 signatures. The chairman of the executive committee is Professor Waldeyer Of the other members Professor Fraenkel, Professor Israel, Professor Posner, Professor von Bergmann, Professor Engelmann, Professor Eulenburg, and Professor König belong to the Berlin medical faculty. The Government is represented by Dr. Althoff, Director of the office of Public Instruction, and Dr. Pistor of the medical department; the army is represented by Dr von Coler; the city of Berlin by the mayor and the president of the town council; and anthropological science by Dr Bartels, Professor Bastian, Dr. von den Steinen, and Dr. Voss. The committee, moreover, includes Professor von Richthofen (president of the Geographical Society), Dr. Becher (president of the Berlin Medical Chamber), and others. Foreign committees will be formed in various countries. Lord Lister will be chairman of the British committee, Professor Wilson (Sydney) of the Australian Committee, Mr. Risley (Calcutta) of the British India Committee, and Professor Scott of the New Zealand Committee.

April 8th.

DUTIES OF SCHOOL BOARD OFFICERS.—An inquest was held in Bristol recently upon the body of a boy, aged eight years. He was ill in bed with bronchitis when the school board officer called at the house, insisted on his being brought downstairs, and told him to go to school in the afternoon. The child went to school, but soon had to return home, and died the same evening. Medical evidence showed that he was not in a fit state to be sent out of doors when the officer sent him to school and that death resulted from bronchitis. The jury returned a verdict to that effect and added a rider that the school board officer had exceeded his duty.

Obituary.

HENRY ERNEST HILL SMITH, M.R.C.S. ENG., L.S.A.,

MAJOR, ROYAL ARMY MEDICAL CORPS.

MAJOR HENRY ERNEST HILL SMITH was born in the year 1861 and was the son of the late Mr. Henry Smith, one of the most distinguished London surgeons of his time. He completed his school life at Chatham House, Ramsgate, and in 1879 entered King's College Hospital, to which later he became house surgeon. He joined the Army Medical Department in 1887, being "first in and out" of Netley. Shortly after, being gazetted surgeon-captain, he applied to be put on the foreign roster and did duty at Singapore until 1891. In 1894 he was selected for service in the Egyptian Army. The commencement of the Dongola expedition in the spring of 1896 found him at Suakim where as senior medical officer he had for a year or more won golden opinions among the native population by his successful surgery. He soon was at the front at Akasheh, having crossed the desert with such of the Suakim troops as could be spared. He was with the cavalry and camel corps in the surprise of the Dervishes at Firket in June, 1896, and in the following year was senior medical officer of the flying column which, under General Hunter, seized Abu Hamad. All through the many engagements of the Soudan campaign he was senior medical officer to the mounted troops and did extraordinarily good service, receiving seven clasps to his Soudan medal and being mentioned four times in despatches; for his services in the Soudan he was specially promoted major in the English army and bey in the Egyptian army; he received also the Medjidieh decoration. As senior medical officer of the frontier he passed the greater part of the last two years of his life at Omdurman, Fashoda, and the south; he was among the first English officers to reach the Sebat river and had some excellent sport among hippopotami, elephants, giraffes, and various kinds of antelope, &c., in these hitherto practically unknown regions. He was, however, as senior medical officer of the frontier a very busy man, for epidemic diseases were very prevalent among the troops, malaria spared no one, he himself was often down with it, and was up with it more often, for he had to struggle on at times with his work when the whole of his staff were on the sick list. Among the many epidemics which he had to combat in the Soudan was a particularly fatal one of cerebro-spinal meningitis on which he wrote a valuable report which was published by the Director-General of the Army Medical Service (*vide* Report, 1898).

Major Hill Smith was a sportsman in every sense—keen, thorough in everything, he was essentially a "good all-round man." His bright, irresistible *bonhomie* was such that no one ever met him but felt the better for it—he had a sort of tonic effect; and the great charm of the man was that he was always the same, whether in cholera camp, in polo or cricket field, under fire, or nursing a sick comrade. He won the respect, the admiration, the trust, and the love of all. His sudden death subsequently to a fall from his horse in a jumping competition is the source of the greatest grief to all in Egypt who knew him The following special army order was published by the Sirdar of the Egyptian Army:—

"War Office, Feb. 24th, 1901.

"The Sirdar announces to the Army with deep regret the death of El Kaimakam Hill Smith Bey, Medical Corps, which took place at Cairo on the 22nd instant after a few hours' illness.

"Those who were brought in contact with him during the six and a half years which he passed in His Highness's service will remember how, by his unceasing cheerfulness and unremitting care of those in his charge he endeared himself to all, and the Sirdar feels that the whole army joins with him in mourning the loss of a gallant soldier and a beloved comrade."

CHRISTOPHER MERCER DURRANT, M.D. EDIN., F.R.C.P. LOND.

ON Easter Eve, April 6th, there passed away, at the ripe ld age of 86 years, Dr. Christopher Mercer Durrant, one of the oldest practitioners in the eastern counties. He was born in 1814 at Lewes, where he received his early education, and later went to Berlin to study German, going thence to the University of Edinburgh, where in 1839 he took his M D. degree In the same year he married and commenced practice as a consulting physician in Ipswich. He was elected after a time physician to the East Suffolk and Ipswich Hospital, in which institution he always took the greatest interest, and his long services there are still remembered with gratitude. A serious illness in 1879 obliged him to resign his active duties in connexion with the hospital, but he continued on its staff as an honorary consulting physician. He was the first President of the East Anglian Branch of the British Medical Association in 1843 and at their jubilee meeting held at Stowmarket in 1893 additional interest was given to the gathering from the unique fact that the President of 50 years before was again by universal consent nominated to the chair. He took a warm interest in the Ipswich Nurses' Home, as well as in the Suffolk Convalescent Home at Felixstowe, in both of which institutions he served on the committee. For several years he took a room in Cox-lane, where once a week the poor of the town and district could consult him and have the benefit of his advice gratuitously. He was a J P. for Suffolk and while health permitted was a regular attendant at the Samford bench. He has contributed several papers to the *British Medical Journal* and in 1873 he was elected Fellow of the Royal College of Physicians of London. The funeral took place on April 11th, the first part of the service being said in St. Margaret's Church, while the burial took place at Freston.

JAMES HOOPER, M R C S. ENG., L S A.

MR. JAMES HOOPER died at his residence, Odd Down House, Odd Down, Bath, on March 27th, in his ninety-sixth year. The deceased, who was the son of the Rev. Thomas Hooper, rector of [illegible] received his educ[illegible] was contemporary with Mr. Gladstone and attended the funeral of George III. He studied medicine at University College, London, and qualified as M R C S Eng in 1841, taking the diploma of L S A in the following year. Mr. Hooper was for many years in practice at Ford and was one of the district medical officers of the Chippenham Board of Guardians; he afterwards practised at Marshfield, near Bath, and was attending to some of his professional duties when 90 years of age Mr Hooper had a considerable reputation as a skilful surgeon and his opinion was often sought by his colleagues in the district The deceased leaves two brothers, who are 88 and 84 years of age respectively. The funeral took place at Yatton Keynell on April 1st.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced.—Dr. Theodor Wynen, Assistant in the Marburg Hygienic Institute, in consequence of infection contracted in the course of his work.—Dr. H Gosse, Professor of Forensic Medicine in the University of Geneva

Medical News.

SOCIETY OF APOTHECARIES OF LONDON—At the primary examination, held on April 1st, 3rd, and 4th, the following candidates passed in the subjects indicated:—

PART II.

Anatomy—H Bacon, Cambridge and Guy's Hospital; B F Board, Royal Free Hospital, J M Burke, Cork and Galway, P. Butler, Birmingham, W R Clarke, University College Hospital, E M Forsyth Royal Free Hospital, A. F. Heald, Cambridge H Leach, Leeds, D Mann, Royal Free Hospital, J A. Renshaw, Manchester; and J H. K. Sykes, Leeds

[illegible]

J. H. K. Sykes, Leeds, and J. M. Wall, St. Thomas's Hospital

UNIVERSITY OF GLASGOW—The following have passed the first professional examination for the degrees of Bachelor of Medicine (M B) and Bachelor of Surgery (Ch.B) in the subjects indicated (B., Botany; Z, Zoology; P., Physics; and C, Chemistry):—

William Allan (P), William Smith Allan (P, C), Andrew Allison (Z, C), George Victor Anderson (B., Z), Donald Arbuckle (B, Z., C), Andrew Hamilton Arnott (B, Z), James Henderson Baird (Z., C), Thomas Barbour (B Z), Hugh Barr (Z, P, C), George Duncan Morrison Beaton (Z, C), George Beattie (B.), Robert Daniels Bell, M A (B, P) John Charles Bosworth (Z), Thomas Fraser Bowie (C), Forrest Brechin (B, P), Charles Brown (B), Charles Burns (B, P), George Yuille Caldwell (P), Donald [illegible]

[illegible] Grier (Z, C) Charles Francis Dyer Hammond (B), James Duncan Hart (Z, C) Frank Hauxwell (Z, C), James Waugh Hay (P, C), Robert M Cowan Hill (B, Z), Lawrence Hislop (P), [illegible]

The following have passed the second professional examination for the degrees of Bachelor of Medicine (M B) and Bachelor of Surgery (Ch B) in the subjects indicated (A, Anatomy; P, Physiology; and M, Materia Medica and Therapeutics).—

Robert Adam (A., P), William Kirkpatrick Anderson (A., M), John William Arthur (A., P), Robert James Arthur (A., P, M), Thomas Ballantyne (A.) Andrew Farm Bell (A., P), Thomas Bennett, M A. (A, P), Archibald Grainger Bisset (M), Alexander Blair (P, M), William Thomas Bolton (A., P, M), James Campbell Bringan (P, M.), John Brown (M), Robert Bruce (A, P) John Miller Hopkins Caldwell (P), Angus Campbell (A, P), Robert Harold Campbell (P), Robert Pirploe Cartwright (P), John Cairns Christie (A), Alexander Erskine Clark (A., P, M), David William Davidson (A., P) Hugh Collin Davies (P), James Dick, M.A. (A) Mitchell Innes Dick (A P, M), William Dick (A) David Dickie (A., P), Hugh M Millan Donaldson (P) George Horn Downie (P), David Garfield Dykes (A, P, M), James Eadie (A, P, M), Cunison Charles Finlator (A., P, M), Eric Dalrymple Gairdner (A., P), George Garry (P) William White George (A), George Gordon (M), William Harvey (A P), James Thompson Kelly (P), John Muir Kelly (P, M), Alexander Dingwall Kennedy (P), Robert Dallas Kennedy (M.), John Kerr (P), Robert Laurie (A., P, M) Alexander Leggat (M) Archibald Leitch (M), William Jamieson Logie (A), Thomas Walter Love (A, P) Donald MacAulay (M), James Duff M'Culloch (A., P, M.), Alexander Armstrong MacFarlane (M), David Duncan Fraser Macintyre (M), John Matheson MacKellar (A., P, M.) Ivy M Kenzie, M.A (M), Alexander Stewart M'Millan (A, P, M), James Roy M Vail (M), James Anthony Maevea (A, P, M) Andrew Alexander M'Whan (A., M) William Main (P), Alexander Matheson, M A. (A., P) Peter Millar (P, M), Alexander John Mitchell (P), Spencer Mort (A P, M) Gavin Muir (P, M), Alexander Harper Napier (P, M), David Penman (A., P), Alexander M Millan Pollock (A, P) William Rankin, M A. (A., P, M), Daniel Falconer Riddell, M A (A, P, M), Peter Hamilton Robertson (A., P), Robert Clemens James Schlomka (A.), Frank Donald Scott (A., P), William Garrow Shand (A., P, M) Lawrence Drew Shaw (M), John Black Stevenson (A P) Wm David Henderson Stevenson, M A. (A P), John Barbour Stewart (A.), William Stewart (A, P), Arthur William Sutherland, M A. (A, P, M), John Wilson Sutherland (A., P, M) Peter Lindsay Sutherland (A, P), Joseph Walker, M A (A., P), Hugh Fleming Warwick (A.), William Norman West Watson (A, P), Robert Tait Wells M A. (M) John Forrest Weston (A., P), Joseph White, M.A, B Sc. (M) Griffith John Williams (A, P), James Wilson (A, P, M), Elored Wright (P) Hugh Young (A., P), John Young, Glasgow (A., P), and Watson Young (M) Women—Jeanie Auld (P.), Annie M'Caig Black (P, M), Agnes Wallace Cameron (P.), Mary Charlotte Cameron (A., P.), Ethel Lily Chapman (P.), Jessie Galloway Duncan (A., P.), Jane Reid Foulds Gilmour (A., P.), Margaret Hardy (A., P.), Alice Wesley Maclean (P.), Mary Lauchline M'Neill (A., P.), Anna Pollock Martin (P., M.), Eliza Jane Miller (A., P.), Isabel Deane Mitchell (A., P.), Charlotte Reid Park (P.), Ethel Jane Mildred Pryce (P.), Margaret Hossack Smart (A., P.), Jessie Marie Stewart (A., P.), Elizabeth Taylor Talbert (A., P.), Janet Gardner Waddell (A., P.)

The following have passed the third professional examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (P., Pathology; and M., Medical Jurisprudence and Public Health):—

William Armitage (M.), Alexander Grey Banks (P., M.), Robert Bryson (M.), George Frederick Buchan (P., M.), John James Young Campbell (P., M.), Alexander Adam Carruthers (P.), Walter Bartlett Chapman (P., M.), Ernest Hamilton Cramb (P., M.), Hugh William Crawford (P., M.), Alexander Dick (P., M.), Donald Douglas, M.A. (P.), Andrew Robertson Dow (P., M.), William Dow (P.), John Ferguson, M.A. (P., M.), Thomas Forsyth (P., M.), John Andrew Garden (P., M.), John Ritchie Gilmour (M.), John Miller Gordon (P., M.), John Guthrie (P., M.), John Andrew Hagerty (P.), Ronald Dingwall Hodge (P., M.), John Brown Dalzell Hunter (P., M.), Ernest David Jackson (P., M.), George Rutherford Jeffrey (P., M.), William Fletcher Kay (P., M.), John Kennedy (M.), Andrew Miller Kerr (P., M.), Stanley Everard Lewis (P., M.), Joseph Paterson Lusk (M.) Daniel Douglas M'Dougall, M.A. (P.), Alexander Macintyre (P., M.) John Chancellor M'Kenzie (P., M.), Thomas M'Laren (P., M.) Alexander Maclean (M.), John Maclean (P., M.) Dugald Henry MacPhail (P., M.), Richard Makins (P., M.), Robert Harry Manson (M.), Harry Somerville Martyn, M.A. (P.), Robert Menzies (P.), James Grant Millar (P., M.), Wm. Alexander Milne (P., M.) John Muir (P., M.), James Stuart Nicolson (P., M.), Robert Orr (P.), Thomas Rankine (P., M.), John Mark Reid (P.), Thomas Richmond (P., M.), David Riddell (P., M.), William Robertson (Blackwood) (P., M.), Norman Cumming Rogers (P.), James Russell (M.), Malcolm Bernard Gathorne Sionette (P., M.), John Williamson Smith (P., M.), Robert Cassels Smith (P., M.), David Spence (P., M.), John Stevenson (P., M.), Robert Rennie Swan (P., M.), William Wagner Turner (P., M.), John Unsworth (P., M.), Thomas Irby Wallace (P., M.), Alexander Brown Watt (P., M.), Peter Millar Waugh (P., M.), David Ashley Wilson (P., M.), and John Wilson (M.) Women—Helen Stephen Baird, B.A. (P.), and Jessie Seath MacEwen (P., M.).

At the recent professional examination for the degrees of M.B., Ch.B., the following candidates passed with distinction in the subjects indicated:—

FIRST EXAMINATION.

Botany and Zoology.—Robert B. Carslaw, M.A.
Zoology and Physics.—John Taylor.
Zoology and Chemistry.—James H. Baird and Thomas Thom.
Zoology.—Walter G. Macdonald, M.A., Norman H. W. Maclaren, Matthew T. D. M'Murrich, Arthur Robertson, John M. Ross, Alexander C. Russell, and Joseph R. Sutherland.
Physics.—Elizabeth M. M'Vail.
Chemistry.—Frank Hauxwell, William L. Kirkwood, Morrison W. Smith, William Y. Turner, and George Young.

SECOND EXAMINATION.

Anatomy and Physiology.—Alexander Matheson, M.A., and William D. H. Stevenson, M.A.
Anatomy and Materia Medica and Therapeutics.—James Eadie, Spencer Mort, and William G. Shand.
Physiology and Materia Medica and Therapeutics.—John W. Sutherland.
Anatomy.—Joseph Walker, M.A.
Physiology.—Robert J. Arthur and Peter L. Sutherland.
Materia Medica and Therapeutics.—Alexander Blair, Cunison C. Finlator, and Daniel F. Riddell, M.A.

THIRD EXAMINATION.

Pathology.—John A. Garden, Ernest D. Jackson, and Andrew M. Kerr.
Medical Jurisprudence and Public Health.—George F. Buchan, William W. Turner, and Peter M. Waugh.

FOREIGN UNIVERSITY INTELLIGENCE.—*Basle:* Dr. von Herff of Halle has been appointed to the chair of Midwifery and Gynæcology.—*Berlin:* Dr. Brandenburg and Dr. Burghart have been recognised as *privat-docenten* of Internal Medicine.—*Cracow:* Dr. Maziarski has been recognised as *privat-docent* of Histology.—*Heidelberg:* Dr. Braus, prosector in the Anatomical Institute, has been appointed Extraordinary Professor.—*Leipsic:* Dr. Franz Windscheid, Director of the Policlinic for Nervous Diseases, has been appointed Extraordinary Professor. Similar promotion has been accorded to Dr. Kollman, *privat-docent* of Dermatology. Dr. Saxer has been appointed prosector.—*Munich:* Dr. A. Jesionek has been recognised as *privat-docent* in Dermatology.—*Rostock:* Dr. Korner has been appointed Ordinary Professor of Otology and Laryngology.—*Valladolid:* Dr. Quintero of Zaragosa has been appointed to the chair of Surgical Pathology.—*Wurzburg:* Dr. Overton of Zürich has been appointed Extraordinary Professor of Physiology in place of Dr. Schenck who goes to Marburg.—*Zurich:* Dr. Martin has been appointed to the newly-created Extraordinary Professorship of Anthropology.

MEDICAL MAYOR. Mr. Ralph Gooding, M.D. Lond., M.R.C.S. Eng., the mayor of Greenwich, has been presented with a chain and badge of gold.

MEDICAL MAGISTRATE.—Mr. Josiah Court, L.R.C.P. Lond., M.R.C.S. Eng., of Staveley, Chesterfield, has been appointed a justice of the peace for the county of Derby.

INFANT LIFE PROTECTION ACT.—At Plymouth on March 29th a woman was summoned for having failed to give notice to the coroner of the death of an infant of whom she had the charge. The evidence showed that the child died on March 6th and a certificate of the cause of death was given by a medical man who saw the child on the previous day, death being due to diarrhœa. The defendant pleaded ignorance of the Act, but the magistrates held that it was a serious offence and she was fined 11*s.*

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL: WINTER SESSION 1900-1.—The following prizes have been awarded:—First Year's Students: L. E. O. Norbury, the William Tite scholarship, £27 10*s.*; D. K. Coutts, College prize, £20; and R. J. H. Cox, College prize, £10. Second Year's Students: H. A. Kisch, the Musgrove scholarship, £38 10*s.*; E. W. Parry, College prize, £20; and T. P. Puddicombe, College prize, £10. Fifth Year's Students: C. N. Sears (Medicine), prize, £10; C. Burrows (Surgery, including Ophthalmology), prize, £10; R. E. Roberts (Midwifery and Diseases of Women), prize, £10; W. M. G. Glanville (Pathology), the Hadden prize, £10; C. N. Sears (Pharmacology and Therapeutics), prize, £10; H. W. Sinclair (Forensic Medicine and Insanity), prize, £10; H. W. Sinclair (Public Health), prize, £10. The Wainwright prize, £10, has been awarded to W. M. G. Glanville, B.A., of Christ Church, Oxford.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following is the prize list for the winter session:—Descriptive Anatomy: Junior—I. Allaun, first prize (£3) and medal, and R. Bury, second prize (£1) and certificate; senior—J. Parker, first prize (£3) and medal, and Miss J. O. Hargrave, second prize (£1) and certificate. Practical Anatomy: First year—E. J. Clarke, first prize (£3) and medal, and R. Bury, second prize (£1) and certificate; second year—J. J. Connolly, first prize (£3) and medal, and J. S. Sheill, second prize (£1) and certificate; third year—E. C. Byrne, first prize (£3) and medal, and J. M. Moriarty, second prize (£1) and certificate. Practice of Medicine: C. W. Ewing, first prize (£3) and medal, and W. R. Ormsby, second prize (£1) and certificate. Surgery: A. Charles, first prize (£3) and medal, and W. R. Burkitt and J. P. Ziervogel (equal), second prize (cheque) and certificate. Midwifery: C. W. Ewing, first prize (£3) and medal, and Miss H. A. Hall and R. W. Burkitt (equal), second prize (cheque) and certificate. Physiology: J. J. Connolly, first prize (£3) and medal, and F. O'D. Fawcett, second prize (£1) and certificate. Chemistry: J. M'Quillan, first prize (£3) and medal, and L. A. Andrews, second prize (£1) and certificate. Pathology: A. Charles and T. A. Dillon (equal), first prize (cheque) and medal, and Miss H. A. Hall, second prize (£1) and certificate. Physics: M. B. Talbot-Crosbie, first prize (£3) and medal, and J. M. Hayes, second prize (£1) and certificate. The Schools of Surgery of the College will resume work after the Easter recess on Monday, April 15th.

PREVENTION OF CONSUMPTION.—The Marquis of Zetland presided on March 27th at a meeting of the York Branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis which was held, by the permission of the Lord Mayor, in the state-room at the Mansion House, York, when it was unanimously resolved, on the motion of Mr. E. R. Turton, J.P., seconded by Mr. Philip Saltmarshe, J.P., to institute a sanatorium for the treatment of suitable cases of consumption upon a site which had been favourably reported upon. On the motion of the Rev. F. Lawrence, honorary secretary of the Church Sanitary Association, the following resolution was adopted: "In the opinion of this meeting it is desirable that preachers, teachers, and all persons who have the opportunity should inculcate the Christian obligation incumbent upon all, of endeavouring to secure for all pure air, pure water, abundant light, proper food and drink, wholesome surroundings, and the greatest possible immunity from infectious disease"—A public meeting was held at Trowbridge on April 3rd, under the presidency of the rector (the Rev D. Ryder), in support of the movement for erecting a sanatorium at Winsley for tuberculous patients of the poorer class from the counties of Gloucester, Somerset, and Wilts Dr. Shingleton Smith and Dr. Lionel Weatherly delivered interesting addresses. Dr. Weatherly, the chairman of the executive committee, stated that as a result of negotiations the Home Secretary had informed the committee that provided the money wherewith to erect the sanatorium was subscribed he would advise the King that his consent be given to call the institution the Royal Victoria Memorial Sanatorium for the three counties of Somerset, Gloucester, and Wilts The announcement was received with great applause The committee are hopeful that the money will be fully subscribed during the summer and the foundation stone laid There has been some opposition to the scheme for the erection of this sanatorium on the ground that it would be injurious to the neighbouring residents. This feeling is now fortunately at an end, and Mrs Lee, one of the objectors, has given £500 towards the sanatorium. The High Sheriff of Wiltshire (Mr. C Awdry) has promised £250, and there are several promises of £200 and many smaller sums.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Death Certification.

WHEN the House of Commons meets after the Easter recess Lord Hugh Cecil will address a question to the Home Secretary with regard to a certain death certificate in regard to which there has been an allegation of irregularity, and ask him whether he is prepared to take steps, either in regard to this particular certificate or generally, to safeguard the accuracy of certificates of death.

Accidents with Petroleum.

The private Members' Bill for raising the statutory flash-point of petroleum has been introduced again, but there is little prospect of its being discussed and almost none of its being passed Obviously this and the other subjects connected with the late inquiry by the Select Committee will have to be dealt with, if dealt with at all, on the responsibility of the Government.

Medical Officers of Health.

There has been introduced into the House of Commons a Bill "to amend the law relating to the qualification and tenure of office of medical officers of health, inspectors of nuisances, and sanitary inspectors and to provide for superannuation allowances to such officers and inspectors and for contribution towards such allowances by such [illegible] and to make other relative provisions." The [illegible] Francis Powell and among those [illegible] Sir Walter Foster, and Dr. Farquharson.

HOUSE OF COMMONS

TUESDAY, APRIL 2ND.

[illegible] Government [illegible] 16 years, a [illegible] now taking place at Leicester, and whether, since the vaccination officer had received no instructions to prosecute from the board of guardians, this officer was acting under direct instructions from the Local Government Board; if so, would he say under what authority the Local Government [illegible] of their inspectors, have reminded the vaccination officer of his duty in [illegible] the [illegible] officer [illegible] are [illegible]

Public Baths Closed on Sunday

Mr J F X O'BRIEN asked the Lord Advocate whether he was aware that Port Glasgow Town Council had decided to close the public baths [illegible] authority to cause the baths to be opened for a reasonable time every Sunday morning.—The LORD ADVOCATE replied: I am informed by the Local Government Board for Scotland that there has not been a single [illegible]

Appointments.

Successful applicants for [illegible] Institutions, and others possessing [illegible] are invited to forward [illegible] the Sub-Editor, not later than [illegible] of each week, for publication in the next number.

ADAMS, A. J. BOWMAN, M.R.C.S., L.R.C.P., has been appointed Medical Officer, the Barnes District of the Richmond Union and of the Children's Home Barnes, also Divisional Surgeon, Metro- [illegible]

AIT[illegible] has been [illegible] and East [illegible]

ASH[illegible] d., has been appointed Senior House Surgeon to the Bolton Infirmary

ASTLES, H. E., M.D. St. And., L.R.C.P. Edin., has been appointed a Member of the Dental Board, West Australia

[illegible] Surgeon under the [illegible] Warwickshire

DARBYSHIRE, D. E., M.B., Ch.B. Vict., L.R.C.P. Lond., M.R.C.S., has been appointed District Medical Officer at Carnarvon, West Australia.

DAVIES, LESLIE, M.B. Melb., has been appointed Public Vaccinator for Birchip, Victoria Australia.

DEBAVIN, A. F., M.B., Ch.B. Melb., has been appointed Resident Medical Officer, Fremantle Public Hospital, West Australia.

EDMUNDS, W., M.A., M.C. Cantab., F.R.C.S., has been appointed Honorary Surgeon to the Tottenham Hospital, The Green, South Tottenham

FOSTER, ARTHUR, M.D. Edin., has been appointed Honorary Assistant [illegible] East Lancashire Infirmary

GAI[illegible] has been [illegible] al Cases [illegible]

GREEN, I. H., M.B., Ch.B. [illegible] Vaccinator for Bendigo, U.F.S. Medical Institute and Dispensary, Victoria, Australia.

HAYFORD, A. C. F., M.D. Melb., has been appointed Medical Officer of [illegible]

[illegible] has been appointed a Justice of [illegible] Wales.

[illegible] appointed a Member of the Board of Health, Queens [illegible]

HARRIS, W. E., M.B. Syd., has been appointed Resident Anæsthetist And Registrar, Prince Alfred Hospital, Sydney, New South Wales

HARVEY, H. F., M.B. C.S., has been appointed Gynæcologist, Perth Public Hospital, West Australia.

HICHINBOTHAM, J. R., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed District Medical Officer at Newcastle, West Australia

HORROCKS, HERBERT M.D. Lond., L.R.C.P., M.R.C.S., has been appointed a Member of the Dental Board, West Australia, and also Assistant Gynæcologist Perth Public Hospital, West Australia.

HOLME, G. F., M.B., C.M., has been appointed Medical Officer of Health for the Urban District of Felixstowe and Walton, vice C. G. Havell, resigned

HURST, J. D., M.B. Melb., has been appointed Officer of Health for the Laverton Board of Health, West Australia.

JAMESON, ADAM, M.B., Ch.M. Edin., has been appointed a Member of the Dental Board, West Australia.

JEWELL, C. C., M.B. Lond., M.R.C.S., has been appointed Government Medical Officer and Vaccinator at Hillston, New South Wales

KELSALL, H. T., M.D. Lond., L.R.C.P., M.R.C.S., has been appointed Ophthalmic Surgeon to Perth Public Hospital, West Australia.

KIRTON, REGINALD GOWER, M.D Lond, D.P.H. Lond., has been appointed one of the Medical Officers for Plague Duty, Cape of Good Hope.

KNAGGS, SAM T., M.D. Aberd., F.R.C.S. Irel., has been appointed a Member of the Dental Board of New South Wales.

LYONS, M. M, M.B, B S. Melb, has been appointed Health and Medical Officer at Gladstone, Queensland.

MARTIN, WILLIAM, M A., B.Sc., M.B, C.M. Glasg, has been appointed Assistant Surgeon to the Cardiff Infirmary, vice John Lynn Thomas.

McWILLIAMS, G. F., M.B, Ch.B. Melb., has been appointed Physician to the Perth Public Hospital, West Australia.

MILLER, ALEXANDER, M B., B.C. Cantab, has been appointed Honorary Physician and Surgeon to the Grimsby and District Hospital.

MUIR, J. C., M B Melb, has been appointed Public Vaccinator for the Women's Hospital, Melbourne, Australia.

MUNRO, A W., M D. Edin., F.R.C.S. Edin., has been appointed Gynæcological Clinical Assistant, Out-patients' Department, Prince Alfred Hospital, Sydney, New South Wales.

O'CONNOR, M., M B., Ch.B. Dubl., has been appointed Senior Physician, Perth Public Hospital, West Australia

RANDELL, A. E, M.B, B.S. Melb., has been appointed Assistant Surgeon, Perth Public Hospital, West Australia.

RIGBY, WALTER, M.B, C.M. Edin, has been appointed Honorary Assistant Surgeon at the Blackburn and East Lancashire Infirmary.

ROBINSON, T. H., M D. Edin., Ch.M., has been appointed Railway Medical Officer at Albany, West Australia.

ROCKETT, P. J. A., M.B, C B. Melb, has been appointed Public Vaccinator for Maffra, Victoria, Australia.

ROGERS, R. S., M.D. Edin, has been appointed Visitor to the Adelaide and Parkside Lunatic Asylum, South Australia.

ROW, L E., M.D. Brux., L R.C.P., L.R.C.S. Edin., L F.P.S. Glasg., has been appointed Assistant Medical Superintendent to the Hospital for the Insane at Goodna, Queensland.

SAW, A. J. H., M.D., B S. Cantab, has been appointed Surgeon to the Perth Public Hospital, West Australia.

SLATER, ALAN BUTLER, M.B., Ch B. Edin, M.R C.S, L R C.P. Lond., has been appointed House Surgeon to the Hospital for Women and Children at Leeds

SMITH, LEWIS A, M.B Lond., M.R.C.P., has been appointed Physician to the Poplar Hospital, Blackwall, London.

TAAFFE, O. G., L R C.P., L R C.S. Edin, has been appointed Assistant Physician, Perth Public Hospital, West Australia.

TAYLER, GEORGE CHRISTOPHER, M.D., L R C P. Lond., M.R.C.S., has been re appointed Medical Officer to the Third District of the Westbury (Wilts) Union.

TRETHOWAN, W., M.B, Ch M. Aberd., has been appointed Assistant Surgeon, Perth Public Hospital, West Australia.

TROTMAN, FRANK, M.D. Lond, L R C.P., M.R.C.S, has been appointed Senior Surgeon, Perth Public Hospital, West Australia.

WHITING, A. J., M.D. Edin., M.R C.P. Lond., has been appointed Assistant Honorary Physician to the Tottenham Hospital, The Green, South Tottenham.

WILLMOT, ROBERT, F R.C.S. Edin., M.R.C.S., has been appointed Official Visitor to Hospital for the Insane, New Norfolk, Tasmania.

WILSON, J. H., L.R.C.P., L R.C.S. Edin, L F.P.S. Glasg., has been appointed a Member of the Licensing Court for Warren, New South Wales.

WISE, NICHOLAS VINCENT, L.R.C.P., L.R.C.S. Irel., has been re-appointed Medical Officer for the Second District of the Melksham (Wilts) Union

YOUNG, H. C. T, M.D. Glasg., Ch.M., has been appointed Gynæcological Clinical Assistant, Out-patients' Department, Prince Alfred Hospital, Sydney, New South Wales.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BEDFORD COUNTY HOSPITAL.—Senior House Surgeon. Salary £100 a year, with apartments, board, and washing. Also House Physician for six months. Salary £25, with board, lodging, and washing.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon, single. Salary £100 per annum, with board and residence.

BRENTFORD UNION.—Assistant Medical Superintendent of the Infirmary and Assistant Medical Officer of the Workhouse and Schools at Isleworth. Salary £100 per annum, with furnished apartments in the Infirmary, rations, washing, &c. Candidates must be single.

BRISTOL GENERAL HOSPITAL.—Casualty Assistant, House Surgeon. Salary £50 per annum, with board, residence, &c.

CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, 41, Sloane-square, Chelsea, S.W.—Resident Medical Officer and Secretary. Salary £95 per annum, with furnished rooms and allowances.

CHORLTON UPON-MEDLOCK DISPENSARY, Manchester.—Resident House Surgeon, unmarried. Salary £130 per annum, with furnished rooms and attendance.

CITY OF LIVERPOOL INFECTIOUS DISEASES HOSPITALS.—Assistant Resident Medical Officer, unmarried. Salary £120 per annum, with board, lodging, and washing.

COSFORD UNION, Suffolk.—Medical Officer and Public Vaccinator. Salary £52 2s per annum, with fees.

COUNTY BOROUGH OF SOUTH SHIELDS.—Medical Officer of Health. Salary £300 per annum.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's-buildings, Holborn-circus, E C.—Resident Medical Officer. Salary £120 per annum, with residence, attendance, coals, and gas, and permission to take resident pupils.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, W.—Senior Clinical Assistants.

HULL ROYAL INFIRMARY.—Junior Assistant House Surgeon. Salary £60, with board and lodging.

INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House Surgeon. Salary £75 per annum, with residence, board, and washing.

ISLE OF WIGHT COUNTY ASYLUM, near Newport, I.W.—Assistant Medical Officer. Salary £100, rising £10 yearly to £150, with board, lodging, washing, &c.

JESSOP HOSPITAL FOR WOMEN, Sheffield.—House Surgeon, unmarried. Salary £75 per annum, with board, lodging, and washing.

KENT COUNTY OPHTHALMIC HOSPITAL, Maidstone.—House Surgeon. Salary £100 per annum, with board, residence, and laundry.

LIVERPOOL HOSPITAL FOR CONSUMPTION.—Resident Medical Officer. Salary £300 per annum, with board and apartments.

LIVERPOOL ROYAL INFIRMARY.—Assistant Honorary Physician.

LIVERPOOL STANLEY HOSPITAL.—Senior House Surgeon. Salary £100. Also Junior House Surgeon. Salary £80, with residence, board, &c.

LONDON HOSPITAL, Whitechapel-road, E.—Obstetric Registrar.

MANCHESTER ROYAL INFIRMARY AND DISPENSARY.—Honorary Assistant Surgeon.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon. Honorarium £50 per annum and board.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Bloomsbury.—Senior and Junior House Physician. Salary respectively £100 and £50 per annum, with board and apartments.

NEWCASTLE-ON-TYNE DISPENSARY.—Two Visiting Medical Assistants. Salary £160 for the first year, and £180 afterwards.

NORTHAMPTON GENERAL INFIRMARY.—Assistant Honorary Physician.

NORTH RIDING INFIRMARY, Middlesbrough-on-Tees.—Assistant House Surgeon. Salary £75 a year, with lodging, board, and washing.

PADDINGTON GREEN CHILDREN'S HOSPITAL, London, W.—House Physician, also House Surgeon, for six months. Salary at the rate of 60 guineas a year, with board and residence.

POPLAR UNION.—Dentist to periodically inspect and to attend to the teeth of all children in the schools, Forest-lane, Forest-gate, E.

ROTHERHAM HOSPITAL.—Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing.

ROYAL SEA BATHING HOSPITAL, Margate.—Assistant Resident Surgeon. Salary £60 per annum, with board and residence.

SHEFFIELD ROYAL INFIRMARY.—Honorary Surgeon.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Assistant House Surgeon for six months (renewable). Salary at the rate of £50 per annum, with board and residence.

STOCKPORT INFIRMARY.—House Surgeon. Salary £100, with residence, board, and washing. Also Junior Assistant House Surgeon for six months Salary at the rate of £24 per annum, with board, washing, and residence.

SUNDERLAND INFIRMARY.—House Physician and House Surgeon. Salary £100, with board and residence, increasing by £15 annually for three years.

SWANSEA GENERAL AND EYE HOSPITAL.—Resident Medical Officer. Salary £75 per annum, with board, apartments, washing, and attendance.

THE CHIEF INSPECTOR OF FACTORIES gives notice of Vacancies for Certifying Surgeons under the Factory Acts at Daventry, in the county of Northampton, and at Magherafelt, in the county of Londonderry.

TOWNSHIP OF TOXTETH PARK.—Two Resident Medical Officers for the Workhouse and Infirmary. Salary £100 per annum each, with board, washing, and apartments.

WEST BROMWICH UNION.—Non-resident Workhouse Medical Officer. Salary £100 per annum. Also Assistant Medical Officer. Salary £100 per annum, and £75 in lieu of apartments, board, &c.

WEST HAM HOSPITAL, Stratford, E.—Junior House Surgeon. Salary £75 per annum, with board, residence, &c.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY.—House Surgeon. Salary £120 per year and £30 per year for dispensing, with furnished apartments and attendance.

Births, Marriages, and Deaths.

BIRTHS.

GALLOWAY.—On April 6th, at Harley-street, W., the wife of James Galloway, M.D., F.R.C.P., of a daughter.

MANNING.—On April 5th, at Hoddesdon, Herts, the wife of Thomas Davys Manning, M.B., B.S., of a son (Roger Davys).

POOLE.—On April 6th, at Hemplow, South Teddington, Hampton Wick, the wife of J. Copeland Poole, M.R.C.S., L.R.C.P., of a son.

MARRIAGE.

RAYNER—TAYLOR.—On April 2nd, at St. Marylebone parish church, Surgeon-Major Hugh Rayner, Royal Horse Guards, to Eva, younger daughter of John H. Taylor, of Devonshire place, W.

DEATHS.

DURRANT.—On April 6th, at Northgate-street, Ipswich, Christopher Mercer Durrant, M.D., F.R.C.P., and J.P. for the county of Suffolk, in his 87th year.

SYKES.—On April 1st, at his residence in Doncaster, John Sykes, M.D. Edin., F.R.C.P. Lond., J.P., aged 84 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

MYSTERY AND MARRIAGE.

A MEDICAL correspondent forwards to us a mysterious circular which was recently sent to him as he thinks it might be of interest to us. The circular is printed in three languages—namely, German, French, and English. The English portion runs as follows:—

> "Since it may be that this circular could render any great service to any person, I publish it in that way.
>
> "A very rich count and of high position, 40 years old, looks by special motife, a [illegible] wife, strangers prefer [illegible]
>
> "He obliges [illegible] ake a considerable donation for the nomination. My name secures the greatest discretion in this earnst matter"

The "principal condition" is, it will be observed, left out; however, an inclosed slip informs us that further details can be obtained from a ship captain giving an address in Trieste All sorts of explanations might be given of the omitted passage as to the wife. The German version says simply "she must." Possibly the very rich count is like the prince in so many folk tales—generally compelled to go about in the shape of a boar or a serpent or some other unpleasant animal and wishes to be certain that his wife should be a lady of equable mind, or, like the gnome in Mr W S Gilbert's story, his beauty and stature may depend upon his not washing There is, however, a slip of green paper which perhaps explains matters On this are printed three lines as follows:

In der Hoffnung (auf Kind)
En ceinte dun enfant
Interesting state (w child)

We presume the very rich count wants an heir, if not from his own loins, then from those of someone else

HOLLANDS AND COCOA IN GOUT.

To the Editors of THE LANCET

SIRS,—Can any of your readers inform a medical colleague if they have found the use of hollands of benefit in modified gout of the extremities, fingers, and wrists, and whether cocoa is injurious in the gouty diathesis? I have been in the habit latterly of taking a cup of cocoa the last thing at night and suffer from pain and stiffness of the finger-joints, especially in the morning I have entirely given up wines or spirits, only taking a glass of light bitter ale with my dinner I understand at Carlsbad beer is permitted in moderation

I am, Sirs, yours faithfully,
April 4th, 1901 EXPERIENTIA DOCET

THE SALT CURE

To the Editors of THE LANCET

SIRS,—In a recent number of the *Contemporary Review* appears an article headed "The Salt Cure" and signed by Claire de Pratz. It describes in a popular manner the treatment of neurasthenia by means of the daily hypodermic injection of a few grammes of solution of neutral salts The tonic effects are said to be very remarkable. Dr. Jules Oberon, Dr Maurice de Fleury, and Dr Albert Robin are the authorities quoted Can you or any of your readers give me any information about this system? Has it been tried in England?

I am, Sirs, yours faithfully,
March 30th, 1901. S W.

MEDICAL FEES AT CORONERS' INQUESTS

To the Editors of THE LANCET

SIRS,—Can you inform me whether it is the custom to pay a medical man two guineas only when an inquest has been adjourned until a post-mortem examination has been made? I recently had to attend an inquest, make a post mortem examination, and attend again on another day at the adjourned inquest. I expected to be paid three guineas, but the coroner said he could only pay two, no matter how often the inquest might be adjourned

I am, Sirs, yours faithfully,
New Seaham, co. Durham, April 3rd, 1901 E. J HOWLEY.

*** It is generally maintained that there is not, and cannot be under the Coroners Act, any fee for attending an adjourned inquest. The question seldom arises, the medical man being, as a rule, only required to attend once We have already dealt with the subject very fully in two leading articles—one on Nov 3rd, 1900, p. 1285, and the other on Nov 24th, 1900, p 1511. In the second of these it was mentioned that Dr John Clark of Cleator Moor, Cumberland, after attending an adjourned inquest was unable to obtain more than two guineas from the coroner, but he subsequently succeeded in getting an extra guinea on applying to the county council In a second case of attendance at an adjourned inquest Dr Clark again claimed an extra fee from the county council, but this time without success. He thereupon applied to the Home Office, and after the lapse of a few months he received from the coroner a cheque for one guinea. In THE LANCET of Dec. 1st, 1900, p. 1613, we published a letter on the subject from the author of "A Brief Abstract of the Laws particularly Applicable to the Medical Profession" in Messrs Burroughs and Wellcome's Medical Diary. This gentleman quoted the following from Section 22 of the Coroners Act, 1887: "A legally qualified medical practitioner . shall be entitled to receive such remuneration as follows, that is to say, (*a*) for attending to give evidence at any inquest whereat no post mortem examination has been made by such practitioner, one guinea; and (*b*) for making a post-mortem examination of the body of the deceased, with or without an analysis of the contents of the stomach or intestines, and for attending to give evidence thereon, two guineas." From this he argues that if it had been intended that no more than two guineas should ever become payable the two subsections would have had the word "or" between them and not the word "and" Moreover, he says, it cannot be argued that the evidence which the medical man would give under subsection (*b*) is covered by subsection (*a*)—ED L.

"THE PRINCE CHRISTIAN VICTOR MEMORIAL."

THE following further sums, amongst others, have been received by the honorary secretaries of the Prince Christian Victor Memorial Fund (Office, Horse Guards, Whitehall S W):—£10 10*s* each, Mr T Mark Hovell, Sir E H Sieveking and Sir Thomas Smith, Bart., £10, Sir Thomas Barlow; £5 5*s*, Mr H W Allingham, £5, Sir W H Broadbent, Bart., Mr G Anderson Critchett, and Dr T J Maclagan.

MEDICAL MEN AND HOSPITAL BOARDS

To the Editors of THE LANCET.

SIRS,—I feel like an old hen picking up crumbs in a yard, yet there are such valuable crumbs in THE LANCET that one often gets a good picking If the profession would follow THE LANCET and the *British Medical Journal* as organs of its central government the result, I am sure, would be admirable. I read that Sir J Crichton Browne repudiates the statement that medical influence on a board would convert a hospital into a mere scientific laboratory But why should not a hospital, or any other place attend [illegible] laboratory? The medical professic [illegible] for the welfare and comfort of all [illegible] for meritorious ends

I am, Sirs, yours faithfully,
Kew, Surrey, March 31st, 1901 JOHN A. HOME.

A QUESTION OF FEES

To the Editors of THE LANCET.

SIRS,—Would you kindly inform me as to the following question of fees? Last year I examined some volunteers for the army and at Christmas sent the account in to the officer commanding for 5*s* each man. He has kindly sent me 2*s* 6*d*. for each and informs me that that is the amount allowed by the battalion. I took that amount off my bill and returned it showing the balance due to me Did I do right? Hoping the answer may be of service to other medical men,

I am, Sirs, yours faithfully,
SUBSCRIBER.

*** We understand that the commanding officer has no discretion to increase the fee—ED L.

A WARNING TO PUBLIC VACCINATORS.

To the Editors of THE LANCET

SIRS,—We public vaccinators are a patient race, yet we have had that imposed upon us which might indeed a saint provoke We are now required to write all our notices in duplicate, and books with alternate thick and thin pages with an accompanying page of carbon paper are supplied as a means to that desired end. So I obediently (as is my wont) set myself to work, and whilst so engaged was called away to see a patient. Instead of being attended to by that gravity that I expected and which my words merited I was distressed by an almost unbecoming exhibition of merriment on the face of my patient. I cast about to solve this incongruous and unexpected overflow of spirits. I had not far to seek. My hands were as black as if I had been cleaning a grate and my nose and eyes, which had been itching whilst bent over this vile carbon paper, were of the same tint as my hands. The lines of Goldsmith—

"The swain mistrustless of his smutted face
While secret laughter tittered round the place"—

were, indeed, too applicable to myself Let this letter be a warning to others to bear in mind the unexpected results of this carbon tissue lest they also become a cause of merriment in others.

I am, Sirs, yours faithfully,
April 6th, 1901. P V.

"ELECTRICALLY LIGHTED BRUNTON'S AURISCOPE."

To the Editors of THE LANCET.

SIRS,—Referring to Messrs John Weiss and Son's letter in THE LANCET of March 30th, p. 933, I have seen the figures of the instrument they mention in their catalogue. Anyone must see, however, at a glance that my auriscope differs very materially from theirs, thus—1. My instrument is adjustable to the trumpet of any Brunton's auriscope. 2. The trumpet of the auriscope does not require to be made removeable to admit of my electric lamp being fixed in position 3 The apparatus can be used with any battery not too strong for the lamp, but—and this is one of my great points—it is specially adapted to the cheap dry-cell batteries now sold which cost only 2*s* 6*d*.

each. 4. The electric lamps are also very cheap and can be screwed into position should a new one be required by two or three turns 5. The wires connecting the auriscope to the battery are fixed instantly The terminals, moreover, are so arranged that the battery cannot possibly run down when not in use. 6 My electric lamp can be used for either the auriscope or the holder that is sold with the battery. All, therefore, that is needed for my auriscope after first purchase of the instrument and battery is the renewal of the dry cell at a cost of only 2s. 6*d* and after long periods a new lamp also at a small cost. I am, Sirs, yours faithfully,

GEORGE H. VOS, M.B. Cantab.

Tottenham, N , April 3rd, 1901.

"PLACE OF RESIDENCE FOR A RETIRED SURGEON."

To the Editors of THE LANCET.

SIRS,—May I through your columns thank "F. H. A." for his kind advice in THE LANCET of April 6th, p 1056, and at the same time ask, are not Bournemouth, Branksome, and the neighbourhood very hot and relaxing in summer, especially after the keen cold of the eastern counties? I am, Sirs, yours faithfully,

April 8th, 1901. P. P.

THE TEMPERANCE QUESTION.

To the Editors of THE LANCET.

SIRS,—Would you or any of your readers kindly let me know of the latest and most reliable work on the temperance question from a medical point of view—whether moderation or total abstinence is the most healthy system? I am, Sirs, yours faithfully,

March 29th, 1901. APRIL.

⁂ Among publications written from the total abstinence point of view mention may be made of several brought out by Sir Benjamin Ward Richardson, such as "Brief Notes for Temperance Teachers," "Alcohol: Its Action and its Use" (Six Cantor Lectures delivered before the Society of Arts), "Moderate Drinking: For and Against" (a lecture delivered in Exeter Hall), "Results of Researches on Alcohol" (an address delivered at Oxford), "The Action of Alcohol on the Mind" (an address delivered at Cambridge) These five appeared between 1874 and 1883 Some of them may be obtained from the Church of England Temperance Society, 4, The Sanctuary, Westminster. Dr. Norman Kerr was also the author of several works of the same kind, including "The Action of Alcoholic Liquors on Health," 1876 "Wines," 1882, "The Truth about Alcohol," 1885. See also "L'Alcool et L'Alcoolisme," by Dr. Triboulet and Dr. Mathieu (Paris: G. Carré et C. Naud), reviewed in THE LANCET of Jan 19th, 1901.—ED L

A WARNING.

To the Editors of THE LANCET.

SIRS,—I think it well to warn my fellow practitioners about a person who called on me recently. She was a tall, dark, lady-like woman and said that she was a "Red Cross" nurse of 19 years' standing She was anxious to find accommodation in the house of a medical man for her brother, Captain Stanley, who had been severely wounded in South Africa, having had six bullets in him, four of which had been removed, while the remaining two (in his lungs) Mr. Treves was going to try to relieve him of. She herself was all through the siege of Ladysmith, and as she was returning to South Africa on Wednesday, April 10th, she was most anxious to arrange matters for her brother before leaving England. The brother, she said, was at present on board ship waiting to be removed to a nursing home, or preferably to the private house of a medical man. Whilst calling at the Herbert Hospital, where she was well known, she happened to meet a Dr Bateman of Blackheath, who told her that he thought that I took in resident patients. Hence her visit. Money was no object.

I told my visitor that there was no one called "Dr. Bateman" at Blackheath and showed her that there were no such name and address in the Medical Directory. But she reiterated the statement. As to references, there were plenty and good ones, even Lord Roberts himself, who was much interested about her brother's case On her return she said that she would "ring up" Sir William MacCormac and that he would at once write to me about the matter. Moreover, the money would be paid in advance. Also she had been dining with Lord and Lady Dundonald a few days ago, whose entry into Ladysmith she should never forget Previously to coming to me she said that she had met a nurse from Guy's Hospital who showed her the way to my house I have since found out that she told a very similar story to this nurse, who has charge of one of my patients, with this addition—that unfortunately she had come away without her purse, but that if she could be assisted the amount would be promptly returned. I am glad to say that the nurse was not caught. This caution may be of service to some of your readers

I am, Sirs, yours faithfully,

April 8th F. G LARKIN.

UNPLEASANT ENTERPRISE

WE have received from a correspondent a letter sent to him by the Law Accident Insurance Society, which society sent him at the same time a reprint of a paragraph from the *Yorkshire Evening Post* and a form to fill up for the insurance by an employer of his employés. The cutting refers to the death of certain children owing to the mistake of a dispenser. We think it rather hard that this man's case, with his full name and the fact of his arrest, should be circulated as an advertisement by the Law Accident Insurance Society. He is under remand, and his serious trouble, whether he brought it upon himself by careless conduct or no, should be respected. Nor do we see how any premium paid by an employer would ever protect a dispenser from a charge of manslaughter if he made a fatal mistake in dispensing. We agree with our correspondent that the enterprise of the Law Accident Insurance Society is in this case unfavourably displayed.

◆

Nemo.—We are not quite certain what it is that our correspondent objects to, for he does not draw our attention to any particular point in the advertisement. There can be no strict rule about the propriety of writing books addressed to the public or about advertising those books in the lay press If a book gives, or is intended to give, useful information to the public and does not invite the public directly or indirectly to consult the author or any particular medical man, more latitude can be allowed in the matter of advertisements. Because a medical man may not appeal to the public in his professional character it does not follow that he must cut himself off entirely from the public.

Rob.—1. "The A.B C. of the X Rays," by W. H. Meadowcroft. London: Simpkin, Marshall, Hamilton, Kent, and Co Price 4s 2. "The Roentgen Rays in Medical Work," by David Walsh, M.D. Edin. London: Baillière, Tindall, and Cox. The former of these books is a very simple popular work. The latter is a useful account of the application of the rays to medical work.

G. P.—It may be very dangerous to prescribe for a patient on the statement of his wife If the diagnosis of the case was originally made by the medical man he might trust to the patient's wife, if she seemed a sensible woman, for a report upon symptoms, but he certainly should not revise his course of treatment without seeing the patient.

A. G C.—An account of Marochetti's observations appeared in the *Westminster Review* for 1824 and in Abhandl. über die Wasserscheu (1843). So far as we know nothing more is known of the treatment

Halifax.—We cannot advise our correspondent to write in a lay paper upon a matter the interest of which is purely medical. Such a proceeding would certainly be unprofessional.

Lactic Acid.—We do not think the public dissemination of the testimonial advisable There is no evidence that the medical man in question has authorised the circular.

Mr. N. A. Butterfield.—"Diseases of the Lungs," by J. K. Fowler, M D., F.R C.P., and R. J. Godlee, F.R.C.S, (Longmans and Co, London), price 25s.

ERRATUM.—In the letter in our correspondence columns, headed "The Case of an Election," THE LANCET, April 6th, p. 1044, second line, "at the above hospital," should read, *at the Samaritan (Free) Hospital for Women and Children*.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a m. by Steward's Instruments)

THE LANCET Office, April 11th, 1901.

Date	Barometer reduced to Sea Level and 32° F	Direction of Wind	Rain fall	Solar Radia in Vacuo	Maximum Temp Shade	Min Temp	Wet Bulb	Dry Bulb	Remarks at 8.30 A.M
April 5	30 10	S E	...	70	47	44	42	44	Overcast
" 6	29·95	S E	...	68	57	44	43	45	Raining
" 7	29 71	S W.	0 14	100	62	45	52	54	Fine
" 8	29 57	S W.	0·07	105	58	49	47	51	Cloudy
" 9	29 67	S W.	0 06	106	60	44	45	49	Fine
" 10	29 42	S W	0·06	81	52	42	45	47	Raining
" 11	29 45	SSW	0 25	54	48	44	47	48	Raining

During the week marked copies [illegible] newspapers have been received:—*Bolt* [illegible] *Leader, Manchester Courier, Newcastle* [illegible] *Observer, Birmingham Gazette, Kent Times,* [illegible] *x Gazette, South Wales Daily News, Blackburn* [illegible] *Telegraph, Advertiser, Cardiff Echo, East Anglia* [illegible] *ald, Sheffield Daily Telegraph, Yorkshire Pc* [illegible] *sion Guardian, Western Weekly Mercury (Plymouth), Hampshire Telegraph, The Mail (Cookstown), Hereford Journal, Plymouth, Morning News, Croydon Advertiser, Rochdale Times, Surrey Advertiser, Widnes Weekly News Gloucester Journal, Liverpool Daily Post, Leeds Mercury, Times of India, Pioneer Mail, Architect, Citizen, Scotsman, Builder, Jackson's Oxford Journal, Mining Journal, Darlington Star, Worcester Chronicle, Weekly News (Oldbury), Northampton Reporter, Derbyshire Times, United Service Gazette, Indicator, Norfolk Weekly Standard, Daylight, Literary Digest, Adelaide Advertiser, Local Government Journal, Local Government Chronicle, City Press, Hertfordshire Mercury, Boston Guardian, South African News, The People, Boston Independent, Reading Mercury, Public Health, Sanitary Record, &c., &c.*

Medical Diary for the ensuing Week.

OPERATIONS.

MONDAY (15th)– (1.30 P.M.), St. Thomas's (3.30 … rys (2.30 P.M.), Middlesex (1.3 … elsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London, (2.30 P.M.), London Throat (2 P.M.)

2.30 P.M.)

London Throat (2 P.M.)

At the Royal Eye Hospital (3 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUE … OCIETY OF LONDON (20, Hanover-

Alcohol—(1) Is it a true food? (2) … Parish Hall, Pavilion road, … J. F. Palmer: Cystic … r: Light Treatment, with … d illustrated with lantern slides.

square, …

FRIDAY … SOCIETY OF LONDON (11, Chandos … Papers:—Dr. L. Sambon: … ographical Distribution of … Disease

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN (North Eastern Hospital for Children, Hackney road, N.E.).—5.30 P.M. Cases and Specimens will be shown by Dr. A. E. Sansom, Dr. J. Taylor and Dr. J. H. Sequeira, Mr. A. B. Roxburgh (introduced) Mr. D. Drew, and Dr. J. P. Parkinson. Paper:—Dr. T. Fisher: Brief Note on a Case of Swelling of the Eyelids after a Bath.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (15th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. A. Whitfield: Consultation (Skin.)

TUESDAY (16th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. S. Taylor: Consultation. (Medical.)

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Dr. A. Macfadyen: Cellular Physiology, with Special Reference to Enzymes and Ferments.

WEDNESDAY (17th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. P. W. de Santi: Consultation (Surgical.)

TH …

FRIDAY (19th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. E. Clarke: Consultation (Eye.)

… J. Thomson

… ITAIN.—3 P.M.

EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

TO SUBSCRIBERS

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423 Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM		TO THE COLONIES AND ABROAD	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, MR. CHARLES GOOD, THE LANCET Offices, 423 Strand, London, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

Communications, Letters, &c., have been received from—

A.—Mr. B. G. Advani, Lond.; Messrs. Armour and Co., Lond.; Mr. C. E. Addison, Colchester; Dr. T. C. Allbutt, Cambridge; A. J. M.

B.—Mr. W. M. Beaumont, Bath; Mr. H. Butterfield, Northampton; Dr. G. S. Barksdale, Fern Bank, U.S.A.; Mr. P. Benham, Lond.; Bedford County Hospital, Secretary of; Dr. Bellini, Athens; Mr. J. M. Bennetts, Truro; C. Birchall, Ltd., Liverpool; Messrs. Burroughs, Wellcome, and Co., Lond.; Birmingham General Hospital, House Governor of; Mr. L. A. Bidwell, Lond.;

C.—Mr. H. Connop, Brailsford; Mr. P. R. Creswell, Dowlais; Mrs. M. S. Clarke, Gurdaspeet; Comité de Publicité, Aix les Bains; Craigside Hydro, Llandudno, Secretary of; Messrs. C. J. Clay and Sons, Edinburgh; Mr. W. H. Chapman, Whitehaven, Dr. Clouston, Edinburgh; Mr. F. V. Chalmers, South Woodford; *Charlotte Medical Journal*, U.S.A., Editor of; Cornwall County Asylum, Bodmin, Clerk of; Cumberland Infirmary, Carlisle, Secretary of.

D.—Mr. F. Davidson, Lond.; Dr. Deanesly, Wolverhampton; Messrs. J. Defries and Sons, Lond.; Dr. J. H. Dauber, Lond.; Deutscher Interenten Verband, Cologne.

E.—Dr. W. Evans, Edinburgh; Dr. D. R. Evans, Cwmyglo; Dr. F. W. Edridge-Green, Lond.

F.—Dr. Wilfred W. E. Fletcher, Lond.;

G.—Dr. J. J. Gallagher, Grand Falls, Canada; Glasgow Royal Infirmary, Medical Superintendent of; Messrs. Grierson, Oldham, and Co., Lond.; Gloucester General Infirmary, Secretary of.

H.—Mr. W. Horrocks, Bradford; Messrs. J. Haddon and Co., Lond.; H. M; Staff-Surgeon W. E. Home, R.N., Edinburgh; Hull Royal Infirmary, Secretary of; Hospital Saturday Fund for London, Secretary of.

I.—Isle of Wight County Asylum, Medical Superintendent of.

J.—Jessop Hospital for Women, Sheffield, Secretary of; J. H. C.

K.—Dr. W. Kirkpatrick, Stourbridge; Kaiser Friederich Quelle Actien Gesellschaft, Offenbach; Messrs. Knight and Co., Lond.; Messrs. G. Kelly and Co., Lond.; Kent County Ophthalmic Hospital, Maidstone, Secretary of, Messrs. R. A. Knight and Co., Lond.

L.—Liverpool Royal Infirmary, Secretary of; Mr. T. Malcolm Leonard, Lugar; Messrs. Lee and Nightingale, Liverpool; Mr. H. K. Lewis, Lond.; Liverpool School of Tropical Medicine, Hon. Secretary of; L. C.

M.—Mr. J. P. Martin, Liverpool; Dr. J. A. Menzies, Rochdale; Manchester Royal Infirmary, Secretary of; Messrs. Meister, Lucius, and Bruning, Lond.; Medical Society of Victoria, Hon. Secretary of; Messrs. E MacGeorge and Co., Lond.; Messrs. Z. P. Maruya and Co., Tokyo; Mr. W. T. Mills, Rhode, Ireland; Lieutenant-Colonel R. D. Murray, Weston-super-Mare; Mr. B. J. Moynihan, Leeds.

N.—Mr. G. W. Newton, Chelmsford; North Riding Infirmary, Secretary of; Messrs. Neyroud and Son, Lond; Mr. H. Needes, Lond.; Mr. F. C. Needes, Lond.

O.—Mr. D. Owen, Manchester.

P.—Mr. Y. J. Pentland, Edinburgh; Herr Fr. Plücker Sohn, Ohligs, Solingen; Poplar Union, Clerk of, Mr. F. L. Pollock, Tenn., U.S.A.

R.—Dr. R E. Rutherford, Brindisi; Mr. E. J. Reid, Lond.; Messrs. Roger and Chernoviz, Paris; Dr. R. Peel Ritchie, Edinburgh; Royal College of Surgeon in Ireland, Dublin, Registrar of; R. M.

S.—Mr. B. W. Sanders, Kingsland; Messrs. W. H. Smith and Son, Manchester; South Devon and East Cornwall Hospital, Plymouth, Secretary of; Mr T. B. Sellors, Lond.; S. F. M. L.; Mr. J. E. P. Shea, Chatham Down; Messrs. Street and Co., Lond.; Stockport Infirmary, Secretary of; Messrs. S. Shah and Co., Calcutta; Dr. Spencer, Modbury; Mr. E. S. Shrubsole, Lond.; Dr. P. D. Strachan, Auchinleck; Messrs. G. Street and Co., Lond.; Dr. G. P. Shuter, Lond.; Scholastic, Clerical, &c., Association, Lond.

T.—Dr. Tunnicliffe, Lond.; Mr. Pugin Thornton, Canterbury; Tallerman Institution, Lond.

V.—Mr J. W. Vickers, Lond.

W.—Dr. G. B. Webb, Colorado Springs; Messrs. Wilson and Valdespino, Lond.; West Bromwich Union, Clerk of; W. H. T.; West Ham Hospital, Stratford; Messrs. W. Wood and Co.; New York.

Letters, each with enclosure, are also acknowledged from—

A.—Mr. F. C. Abbott, Falmouth; A. F. W.; A. D. L. T.; Alpha, Neath; Dr. M. E. D. Allen, Oxford; Mr. G. E. Ansell, Brighton; A. J., Cheltenham; A. W. H.; A. E. K.; Apollinaris Co., Lond.

B.—Mr. C. L. Bedford, Birmingham; Dr. B.; Mrs. B., Lond.; Bury Infirmary, Secretary of; T. B. Browne, Ltd., Lond.; Mr. H. J. T. Blanch, Swindon.

C.—Dr. H. G. Cooper, Bowdon; Messrs. Crossley and Co., Lond.; Mr. W. F. Clay, Edinburgh; Mr. J. E. Cornish, Manchester; C. J. W.; C. W. B.; Dr. R. Cox, Theale; Chelsea Union Infirmary, Clerk of; Mr. W. A. Collins, Bridgwater.

D.—Major H. E. Drake-Brockman, I.M.S, Bharatpur, India; Dudley Dispensary, Hon. Secretary of; Discount Motor Car Co., Lond.; Mr. J. W. Draper, Almondbury; D. W.; D. R. M, Bedminster; Mr. L. W. Dryland, Kettering; Mr. W. Doughty, Chillington.

E.—Mr. C. W. Evans, Kington; Ecclesall Bierlow Union, Clerk of; E. A. C.; E C. W.; E. J. A.

F.—Mr. J. J. Fanning, Birr, Ireland; Dr. H. Fischer, Paris; Felix, Lond.

G.—G. S.

H.—Dr. D. Hethcote, Catterick; Mr. W. Halley, Lond.; H. C.; H.; Mr. T. Harling, Gunnerside; High street (20), Camden Town; H. C. W.; H. H.

I.—International News Co., Lond.

J.—Jenner Institute for Calf Lymph, Lond.; J., Lond.; J. J.; J. M. E; J. C., Mr. H. J. Jones, Lond.; J. M. M. C.; J. W. R.; J. H. C.

K.—Dr. R. G. Kirton, Shooter's Hill; Lieutenant-Colonel H. W. Kiallmark, Lond.; Mr. R. A. Keys, Bagillt.

L.—Mr. W. W. Leigh, Treharris; Mr. C. B Lockwood, Lond, Messrs. Larcom and Veysey, Portsmouth.

M.—Dr. J. F. Macara, Durness; Mr. S. B Mason, Pontypool; Mr. C. P. Mathew, Tregony; Manchester Medical Agency, Secretary of; Dr. G. A. Mason, Lond.; Mendip Hills Sanatorium, Secretary of; Messrs. J. and P. M'Lelland, Partick; Dr. J. G. McNaughton, Turriff; Medicus, Burton on-Trent; Dr. L. P. Mall, Konstanz; M. H. H.; Mr. S. Mackey, Manchester; M. S. M. D.; M. J. P. B.

N.—Northern Medical Association, Glasgow; Northern Publishing Co., Liverpool; Mr. A. T. Norton, Capri, Italy; National Sanatorium for Consumption, Bournemouth, Secretary of.

P.—Miss E. Pickering, Bexley; Mr. G. N. Parker, Pontesbury; Dr. E. J. Parry, Pontycymmer; Dr. P.; P. S. W.; P. S.

R.—Dr. T. E. Richards, Aberavon; Messrs. A. Riddle and Co., Lond.; Dr. T. W. Reid, Canterbury; Mr. E. T. Roberts, Festiniog; Mr. A. W. Mayo Robson, Leeds; R. N. H.; Dr. C H. G. Ramsbottom, Meltham; Rotunda Hospital, Dublin, Secretary of; Mr. F. Rhodes, Catford.

S.—Dr. R. H. Shaw, Brighton; Smith's Advertising Agency, Lond.; Mr. J. E. Sharpley, Kirton Lindsey; Mr. W. P. Smart, Burton on-Trent; St. Marylebone Infirmary, Matron of; S. T.; S. G. W.; Dr. S. Spicer, Lond.; *Sheffield Independent Press*; Stoke-on-Trent Union, Clerk of; Mesdames Sykes, Josephine, and Co., Lond.; Surgeon, Lond.

T.—Dr. C. H. Thompson, Lond.; Mr. J. W. Taylor, Morecambe; Mr. C. Truan, Chacewater; Messrs. J. Turner and Co., Queensferry; Tunbridge Wells General Hospital, Secretary of; Mr. J. Thin, Edinburgh, Mrs. Turner, Dalkeith.

W.—Dr. G. B. Wood, Sandown; Mr. J. H. Wallis, Babbacombe; Messrs. H. Wilson and Son, Lond.; W. J. R; Wigmore Nurses' Institution, Lond., Mr. J. Williams, Bradford; Mr. W. A. Wharram, Leeds.

Y.—Mr. H. W. Young, Lond.; Dr. J. Younan, Sheffield.

EVERY FRIDAY. **THE LANCET.** PRICE SEVENPENCE.

SUBSCRIPTION. POST FREE.

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

ADVERTISING.

Books and P[illegible]	[illegible] n Lines and under	£0 5 0
O[illegible]	Ditto	0 5 0
T[illegible]	Ditto	0 4 6
	Every additional Line	0 0 6

Quarter Page, £1 10*s*. Half a Page, £2 15*s*. An Entire Page, £5 5*s*.

Terms for Position Pages and Serial Insertions on application.

An original and novel feature of "THE LANCET [illegible] [illegible] advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is [illegible]

Advertisements (to ensure insertion the same w[illegible] [illegible] than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by spe[illegible] THE LANCET.

The Manager cannot hold himself responsible [illegible] return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisem[illegible] be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls [illegible] [illegible]gdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France,—J. ASTIER, 8, Rue Traversière, Asnières, Paris

A Clinical Lecture

ON

CARCINOMATOUS STRICTURE OF THE DUODENUM.

Delivered at St. George's Hospital on March 11th, 1901,

BY H. D. ROLLESTON, M.D. CANTAB., F.R.C.P. LOND.,

PHYSICIAN TO, AND LECTURER ON PATHOLOGY AT, ST. GEORGE'S HOSPITAL.

GENTLEMEN,—A plumber, aged 50 years, was admitted to the hospital on Nov. 29th, 1900, with weakness, anæmia, vomiting, and abdominal pain. His past history showed that he had been healthy until two years ago, when he began to suffer from pain in the epigastrium immediately after food; this pain had continued on and off since. In July and August, 1900, he was laid up with vomiting, and again on Nov. 8th. During the last year he had lost weight and had grown paler, and had suffered from constipation. He had had no previous illnesses, there was no reason to think that he had had syphilis, and he had taken beer moderately. The patient was big-boned, spare, and anæmic, and presented practically no objective signs of disease in the chest or abdomen. The tongue was moist and slightly furred, the teeth were bad, but there was no blue line on the gums. The lungs were normal, the heart was not enlarged, and the sounds, though distant and rather weak, were otherwise normal; the second sound was not accentuated either over the pulmonary or aortic areas Nothing abnormal could be felt in the abdomen, but the skin was dry and inelastic. There was no abnormal resistence in the abdomen and no distension; at times, indeed, in the course of the case the abdomen became retracted, while before bouts of vomiting it became rather fuller. No enlarged glands could be felt in any part of the body. The blood showed a secondary anæmia, the red corpuscles numbered 3 340,000, the hæmoglobin amounted to 70 per cent., and there was a slight leucocytosis. The urine varied in specific gravity, with the occurrence of vomiting, from 1010 to 1030, and sometimes contained a trace of albumin. Further changes in the urine will be referred to later. The pulse was normal in rate, rhythm, and tension. The vomited matters were found not to contain any free hydrochloric acid. On admission a tentative diagnosis of carcinoma of the pylorus was made although no tumour could be felt. After a few days the stomach increased in size and seemed to support this diagnosis. On the other hand, the man's work, that of a plumber, and the history that he often took his meals without being able to wash his hands suggested that the anæmia, debility, and gastro-intestinal disturbance might be due to lead poisoning. However, there was no lead line on the gums such as there would have been, since his teeth were bad, if lead had recently been introduced into the system. There was no wrist-drop or paralysis and the pain was not that of lead colic. It is well to remember that it is easy to overlook the presence of grave abdominal disease in cases of suspected plumbism; thus I remember performing a post-mortem examination on a worker in lead who had a blue line on his gums and had had vomiting, constipation, and abdominal pain; he had a twist in the small intestine near the ileo-cæcal valve, at a point where the ileum was bound down for the last five inches to the posterior abdominal wall by a congenital deficiency of the mesentery. Incidentally it may be mentioned what an anxious problem the diagnosis of acute intestinal obstruction is in a patient with tabes; gastric crises may closely imitate mechanical obstruction and yet, of course, tabes in no way protects against acute intestinal obstruction. One is conscious of the importance of making a correct diagnosis so as to avoid an unnecessary operation on the one hand, and the calamity of allowing a patient to die from unrelieved obstruction on the other. Some years ago a patient under my care with tabes had an unusually severe and prolonged gastric crisis, and these questions were solved by waiting for developments.

A third possibility as to the condition at work in our patient was that it was a case of oral sepsis and that he was suffering from septic gastritis due to micro-organisms and pus swallowed as the result of pyorrhœa alveolaris. He was, indeed, given Giesshübler water to wash his mouth and teeth with and was provided with a tooth-brush; this simple mineral water was recommended to me by Mr. H. L. Albert for its purifying and cleansing effect on the teeth. The fact that the patient's general aspect suggested malignant disease did not necessarily render it unlikely that the whole condition was one of gastritis due to pyorrhœa alveolaris, for cases in which an initial diagnosis of carcinoma of the stomach had been arrived at have been cured by removing the cause—pyorrhœa alveolaris (W. Hunter[1] and R. J. Godlee[2]).

Turning now to the progress of the case, the patient vomited occasionally after admission and on Dec. 6th brought up 11¼ pints in 15 hours; the vomit contained bile but no free acid Some of the vomit was dark in colour and extremely offensive; the presence of bile made it clear that the obstruction, if any existed, was below the level of the biliary papilla in the duodenum and it put the tentative diagnosis of carcinoma of the stomach out of court. After this copious vomiting the excretion of urine was suppressed. This is sometimes seen in cases of dilated stomach with copious vomiting and is analogous to the anuria that occurs in cholera. The stomach was washed out and the patient was put on rectal feeding. As the vomiting stopped he was, three days later, put back on to some food by the mouth, water being given by the bowel. On Dec. 10th the stomach was washed out. Two days later he vomited 78 ounces, having only had 30 ounces by the mouth since the stomach was washed out There was therefore considerable gastric secretion or gastro-succorrhœa. This may be correlated with the fact that the chlorides in the urine were frequently found to be almost absent After this rectal feeding was again resorted to for a time. On Dec 17th the urine (specific gravity 1012) was found to turn of a dark port wine to brown colour when heated with nitric or any other mineral acid. The darkening was extremely marked and attracted instant attention. This colouration is produced by two different substances in the urine, the commonest being a colourless chromogen which represents indol in the alimentary canal and indican in the urine The other body is melanin, the pigment found in melanotic sarcoma. Melanin is passed in the urine in cases of large secondary melanotic growths in the liver such as are generally secondary to a primary melanotic sarcoma of the uveal tract in the eye. Melanin is nearly always passed in a colourless or chromogen form (melanogen), and only appears after standing and oxidation or when nitric acid or some other agent, such as bichromate of potassium or a solution of perchloride of iron, is added to it. The colouration then occurs at once. The patient's urine did not darken with perchloride of iron, so the body was not melanin. It was therefore plain that there was some body allied to indican in the urine which was due to fermentation taking place in the intestinal tract and the absorption of bodies allied to indol. Auto intoxication of intestinal origin frequently shows itself in this way in the urine. The appearance of the urine was exactly the same as that figured by Mr. A. Pearce Gould[3] in a case in which death occurred from toxæmia following acute intestinal obstruction. Dr. G. A. Buckmaster, who devoted much time to examining the urine, prepared considerable quantities of indican from the urine and found that there was 1 6 per cent of creatinin in the urine, making the approximate weight passed in the 24 hours' urine 2 4 grammes as against the normal 0 9 gramme. What this increase in creatinin was due to or what it signifies is doubtful. It occurred to me that possibly it was due to creatin taken in from the suppositories on which the patient was subsisting, but Dr. Buckmaster's analysis of a suppository showed that it contained practically no creatin Creatinin in the urine is either due to creatin taken by the mouth or is derived from the metabolism of the muscles. As it was apparently not due to food, it must be assumed that it was derived from the muscles of the body. The amount of urinary creatinin is said to be increased in wasting diseases, and as the patient was certainly losing flesh this seems the most likely explanation. For a few days the patient rallied and he took food by the mouth, but on Dec. 21st he vomited four times, bringing up 58 ounces of bilious fluid, and rectal feeding was again employed. The next day hiccough began, and in spite of all kinds of varied remedies continued for a week, only stopping after intravenous transfusion (80 ounces) was performed by Dr. S. V. Pearson. After this the patient again improved for a time. On Jan. 7th, 1901, a rash appeared on the abdomen, and on the following day the amount of chromogen (indican) in the urine, which had for some time been small, was much increased, the urine, when warm, turning of a brown sherry colour with HNO_3. The interest of this rash is that in Mr. A. Pearce Gould's case of toxæmia after acute intestinal obstruction there was an urticarial eruption associated with this change in the urine. The patient began to wander, tried to get out of bed, passed his urine and fæces in bed, and was presumably suffering from auto-intoxication. On Jan. 10th he was again transfused and he showed some slight improvement. His temperature now began to go up and the left knee became swollen, Mr. Sheild opened the knee-joint and let out some thin pus which was found by Dr. C. Slater to contain streptococci. A few abscesses appeared in other parts of the body and it was clear that he had developed pyæmia. The probable source of infection was the transfusion wound which had been slow to heal. The treatment was directed against the streptococcal pyæmia by giving subcutaneous injections of anti-streptococcic serum. Sera from different sources were employed so as to hit off, if possible, a strain of streptococci the same as, or similar to, that causing the hæmic infection. The patient gradually got weaker, passed into a condition of semi-coma, and, as before, had attacks of vomiting from time to time; the severity of the pyæmia passed away and as far as that was concerned the treatment was successful, but the patient died from exhaustion on Feb. 6th.

---

[1] W. Hunter: Transactions of the Odontological Society of Great Britain, February, 1899

[2] R. J Godlee: Transactions of the Royal Medical and Chirurgical Society, vol. lxxxiii., p 342, 1900

[3] Transactions of the Clinical Society of London, vol. xxxi., p 47.

The urine, which throughout the course of the disease was diminished in amount, was constantly noted by Mr. A. S. Jex Blake. Its specific gravity was usually between 1010 and 1018; it was acid, sometimes it showed a trace of albumin, but never, even when suppuration was taking place, contained albumose. The amount of urea varied between 1·6 per cent. and 2·3 per cent., the normal being about 2 per cent. The indican reaction varied from time to time, sometimes being marked, at other times almost disappearing. The urine was free from urobilin; sometimes the chlorides were practically absent, while at other times they returned. The fæces contained bile and were often extremely offensive.

The case presented the features of recurrent attacks of vomiting, probably due to a dilated stomach, but as the vomit contained bile the obstruction was evidently lower down. The abdomen was never distended and was often much retracted, so it was assumed that there was obstruction in the small intestine, but as no tumour could be felt at any time the diagnosis was not thought to be sufficiently assured to justify an exploratory operation. It is noticeable that the bouts of vomiting followed the return to feeding by the mouth. That the obstruction was not absolute was shown by the passage of fæces containing bile.

At the necropsy, performed by Dr. W. J. Fenton, there was no ascites nor peritonitis. There was a tight stricture of the third part of the duodenum just where the mesentery crosses over it. From the outside it looked as if a string had been tightly tied round the duodenum; no growth could be seen externally. At first sight it looked like an example of stricture of the duodenum caused by pressure exerted by the superior mesenteric vessels and nerve. This condition has been described by Byrom Robinson[4] who performed laparotomy unsuccessfully on a case with enormous dilatation of the stomach and duodenum from this cause; he has also noted 20 cases in which dilatation of the duodenum began at this point and considers that it is especially apt to develop in patients with visceroptosis when lying on their backs. This is perhaps rather a novel view, but it deserves testing, and is at any rate on the same lines as the production of hydronephrosis by the pressure of abnormal renal arteries on the ureter.[5] Above the stricture the duodenum and stomach were slightly dilated and their muscular walls were a little hypertrophied. The small intestines and colon were collapsed. On opening the duodenum there was seen to be a white flat growth replacing the mucous membrane of the duodenum in the immediate neighbourhood of the stricture; there was more growth above the stricture than on the side towards the jejunum. The growth looked like a thick filter paper perforated at the apex fitted into a funnel. The stricture just admitted a cedar pencil. Above the stricture the growth tracked up towards the biliary papilla which it touched, and was just beginning to obstruct the outflow of bile since the common bile duct was dilated.

Microscopically the growth was a carcinoma with columnar cells. There were no secondary growths in any part of the body. The pancreas was large and fibrotic, probably from extension of infective catarrh from the duodenum into its ducts; Wirsung's duct was not dilated; there was no trace of growth in the pancreas. The mucosa of the stomach appeared healthy to the naked eye. Microscopically the cells of the glands were much altered and degenerated, but possibly there was a post-mortem change. The liver, which weighed four pounds, was in a condition of cloudy swelling; the gall-bladder was full of bile and the ducts were dilated. There was no jaundice and there never had been any during the patient's stay in the hospital. The other organs were healthy except for obsolete tubercle at the apices of the lungs.

There was, therefore, a carcinomatous stricture of the third part of the duodenum, which, though not entirely occluding the lumen of the bowel, had given rise to recurring attacks of obstruction. Liquid food in small quantities could have passed into the jejunum, but it is probable that from time to time food collected in the commencement of the third part of the duodenum just above the stricture and by bulging it downwards led to traction and so to complete closure of the fixed and already strictured part of the bowel.

As to treatment, rectal feeding was successful in temporarily alleviating the symptoms but could not be permanently persisted in, as the condition of the patient was far from being good. Gastro-enterostomy would no doubt have relieved him for a time—i.e., until he died from malignant disease—but the diagnosis was never sufficiently dogmatic to justify a speculative laparotomy in a man so gravely ill. It is true that stricture or growth in the small intestine was suspected on the grounds of the bilious vomiting, but in the absence of anything palpable on the abdomen this hardly justified an appeal to surgery.

General Remarks.

Malignant disease rarely attacks the small intestine, and when it does the growth is usually either in the duodenum or close to the ileo-cæcal valve. Malignant disease is less infrequent in the duodenum than in the lower part of the ileum, but is decidedly rare even there, as shown by the following statistics given by Schlesinger.[6] In 25 years there were in Vienna only seven cases of primary malignant disease of the duodenum among 42 000 post-mortem examinations, of which 3583 were cases of malignant disease, and of these 443 involved the intestines. In 18,000 necropsies at Guy's Hospital there were 10 cases of primary malignant disease of the duodenum, four of which were carcinoma (Perry and Shaw).

Malignant disease of the duodenum may be either carcinoma or more rarely sarcoma. Libman[7] has collected 15 cases of primary sarcoma of the duodenum. Some of the cases described as lympho-sarcoma, however, may have been only lymph-adenoma. A comparatively extensive tract of the duodenum may be involved by sarcoma. Its wall is usually softened by the sarcomatous growth and is often dilated, so that there are no symptoms of stenosis.

Primary carcinoma of the duodenum is much more localised and tends in most instances to produce an annular stricture. The cases in which it does not produce this effect are those where a small growth arising from the duodenal surface of the biliary papilla proves fatal by inducing jaundice and cholæmia or suppurative inflammation of the biliary tract before it has had time to grow to any size. There was an excellent example of this in the post-mortem room last week; a patient under the care of Dr. Isambard Owen, a man, aged 52 years, with jaundice and rigors, had a small columnar-celled carcinoma involving the duodenal surface of the biliary papilla and setting up suppuration throughout the bile-ducts and in the gall-bladder. With this general exception duodenal carcinoma gives rise to stricture of the intestine, at least in the great majority of cases. Schlesinger, Letulle,[8] and others have, however, recorded examples of exceptions to this general rule.

---

[4] The American Practitioner and News, August 15th, 1900, p. 125.

[5] G. N. Pitt: Transactions of the Pathological Society of London, vol. xlv., p. 107.

[6] Wiener Klinische Wochenschrift, 1898, No. 10, S. 245.

[7] American Journal of the Medical Sciences, vol. cxx., p. 309.

[8] Gazette des Hôpitaux, Dec. 9th, 1897.

Like carcinoma of other parts of the body, carcinoma of the duodenum is a disease of late middle or advanced life. In 41 cases which I have collected from various sources the average age was 52 years, being 53·4 years in 10 females and 51·7 years in 31 males. In 10 out of 33 cases collected by Nattan-Larrier[9] the patients were over 70 years of age. In the 41 cases which I have tabulated, probably including many of Nattan-Larrier's, seven patients were 70 years of age or upwards, the extremes being 80 years and 27 years. In 42 collected cases (not including the present case) 32 of the patients were males and 10 were females. The marked predominances of the male sex corresponds with the greater number of male victims in carcinoma of the tongue, œsophagus, stomach, and rectum. Malignant disease resembles ulcer of the duodenum in its preference for the male sex; in 127 cases of duodenal ulcer tabulated by Cullen[10] 108 were males and 19 were females.

Carcinoma of the duodenum is a columnar celled carcinoma which may show a transition to a spheroidal-celled type or can undergo colloid change. The growth almost always leads to stricture of the duodenum and to dilatation and hypertrophy of the proximal part of the duodenum and stomach. In a few instances the growth has perforated into the general peritoneal cavity and given rise to peritonitis; a localised abscess has also been observed from perforation. A definite tumour is palpable in the position of the duodenum in a small number of cases.

Carcinoma of the duodenum is difficult to recognise during life and presents a different clinical picture according as the growth is situated in the first, the second, or the third portion. It will therefore be most convenient to describe the three different forms.

1. *Carcinoma of the first part of the duodenum* is rare; in 40 collected cases the first part was affected alone in eight and together with the second part in five more. It is indeed remarkable that carcinoma of the pylorus does not extend into the duodenum more often than it does. It is, of course in some cases, where there is a growth on the position of the pylorus, difficult or impossible to be certain exactly how much or how little of the commencement of the duodenum has been involved, but most observers believe that carcinoma of the pylorus stops short at the pylorus. It is a point of some importance to have grounds for or against this belief, since if carcinoma of the pylorus does not tend to infiltrate the duodenum, excision of the pylorus for growth may, as far as this point is concerned, be recommended with a fair prospect of success. This question has recently been investigated by Cuneo and Lucène[11]; in 10 specimens removed during life for pyloric carcinoma, in only one did the growth manifestly extend into the duodenum and in three others there were microscopic foci of infection cells in the lymphatic vessels but not extending more than two centimetres from the pylorus; in the other six cases the duodenum was microscopically healthy. Therefore in cases where the pylorus appears to be healthy to the naked eye a surgeon should, in excising the pylorus for carcinoma, be fairly safe if he removed the first three centimetres of the duodenum at the same time. Carcinoma of the first part of the duodenum has practically the same clinical picture as carcinoma of the pyloric end of the stomach, and as it is a rare disease the commoner form will probably always be diagnosed in its place. It is, therefore, conveniently called "juxta-pyloric carcinoma of the duodenum"; another name for it, since it is above the level of the biliary papilla, is "supra-ampullary carcinoma." It is interesting to note that, just as in the case of the stomach, so in the first part of the duodenum, carcinoma may develop on a former ulcer. Perry and Shaw[12] give five cases in which a simple ulcer was thought to have become malignant. Nattan-Larrier refers to five additional cases of ulcer carcinomatosus of the duodenum, including one published by Letulle of colloid cancer in a man who had some years before been under his care with definite symptoms of duodenal ulcer. Ulcer can hardly be an important factor in the causation of duodenal carcinoma, since duodenal ulcer is practically limited to the first part of the duodenum, and carcinoma in that situation is rare. Thus 123 out of 149 duodenal ulcers collected by Dreschfeld[13] were in the first part of the duodenum. Again, from the frequency with which duodenal ulcer is latent during life, clinical evidence in favour of the previous existence of a simple ulcer is seldom forthcoming. It is, therefore, on the post-mortem observation that we have to depend, and it may be rather difficult to be sure whether there is wide ulceration and sloughing of a growth or the development of carcinoma in a pre-existing ulcer.

2. *Carcinoma of the second part of the duodenum*.—This is the most frequent form of primary carcinoma of the duodenum. In 40 collected cases the growth was limited to the second part in 24, while in five others the first part was invaded as well. If it occurs in the upper part of the second portion of the duodenum—that is, above the level of the biliary papilla—it will give rise to much the same symptoms as carcinoma of the pylorus; if, on the other hand, it involves the biliary papilla the flow of bile will be interfered with and jaundice or other complications will occur; while if it is well below the biliary papilla it will by narrowing the lumen give rise to obstruction with bilious vomiting. Carcinoma has a special tendency to arise in the duodenal mucous membrane covering the biliary papilla. This must be differentiated from carcinoma arising inside the biliary papilla or in the ampulla of Vater, the channel common to the terminations of the common bile-duct, and Wirsung's duct of the pancreas. The term "carcinoma of the ampulla of Vater" is sometimes erroneously applied to a carcinoma of the duodenum involving the biliary papilla. When carcinoma arises on the duodenal surface of the biliary papilla the flow of bile is interfered with, though it is not, as a rule, completely blocked. A change that very frequently follows on this and may rapidly kill the patient is suppurative inflammation of the bile ducts. The partial stagnation favours infection, and the growth, while not completely occluding the lumen of the papilla, favours duodenal catarrh and its extension into the common bile and pancreatic ducts. The duct of Wirsung may also become dilated. The biliary papilla is a favourite site for the development of carcinoma; possibly this is due to some fœtal displacement or irregular inclusion of epithelial cells during the development of the hepatic diverticula from the primitive duodenum. It is interesting to note that the disturbance, incident on the outgrowth of the hepatic diverticula from the duodenum, may lead to a congenital narrowing or to atresia of the bowel at this point, analogous to congenital atresia of the œsophagus. An innocent papilloma is sometimes seen to arise from the duodenal surface of the biliary papilla, and it is, I think, probable that carcinoma may subsequently develop in such a growth. The question has been raised whether impacted gall-stones inside the ampulla of Vater have any bearing on the development of new growth on the duodenal surface of the papilla. On the face of it this seems improbable, and though D. K. Dickinson[14] has recorded the association of these two conditions, this experience is almost unique.

From its situation primary carcinoma of the intestinal mucous membrane of the biliary papilla is spoken of as juxta- or peri ampullary carcinoma. As a rule, peri-ampullary duodenal carcinoma imitates carcinoma of the head of the pancreas and gives rise to jaundice associated with an enlarged gall-bladder. Jaundice was present in 23 out of 25 cases quoted by Mathieu.[15] In rare instances, however,[16] the growth, although involving the papilla or invading the bile duct, does not give rise to jaundice. The jaundice may vary, be intermittent, or, as in the case under the care of Dr Isambard Owen, disappear for a time; it thus differs from the permanent and progressive jaundice seen in carcinoma involving the common bile duct, the cavity of the ampulla Vateri, or the head of the pancreas. The intermittence or disappearance of jaundice in duodenal carcinoma involving the biliary papilla must depend on the growth ulcerating and thus no longer obstructing the flow of bile; if the tumour goes on growing it may again lead to obstructive jaundice. Though the biliary papilla is a favourite starting point for carcinoma the growth may begin elsewhere in the second part of the duodenum and involve it by extension.

3. *Carcinoma of the third part of the duodenum* is the least frequent of all the three varieties. In 40 collected cases (not including the present example) it was only found in three. It is sometimes spoken of as infra ampullary or juxta-jejunal carcinoma of the duodenum. The symptoms are those of intermittent obstruction, as in the case brought

---

[9] Gazette des Hôpitaux, Dec. 9th, 1897.

[10] The [illegible] l, p. 639.

[11] [illegible] 73?.

[illegible]

[14] New York Medical Journal, 1879, vol. xxx., p. 149.

[15] Traité des Maladies de l'Estomac et l'Intestine, p. 921.

[16] Descos et Bériel: Revue de Médecine, 1899, p. 633. Lannois et Courmont: Ibid., 1894, p. 291.

forward to day, with bile in the vomit. It thus resembles pyloric obstruction except for the presence of bile and pancreatic juice in the vomit. The occurrence of bile should at once suggest carcinoma of the duodenum below the biliary papilla or a gastro-biliary fistula. In such a case the vomit should be tested for trypsin by seeing whether fibrin is digested in an alkaline solution. In this way the diagnosis between the two conditions might be made.

AUTOPSYCHORHYTHMIA OR REPETITION PSYCHO-NEUROSIS.

MORBID RHYTHMIC FORMS OF AUTOMATICITY AND RHYTHMIC FORMS OF MENTAL ALIENATION.

BY C. H. HUGHES, M.D.

THE pathetic story of the accountant who, in a state of nervous exhaustion and cerebrasthenia, was carried to Bethlem Hospital pitifully repeating, "Once one is two, once one is two," the mistaken calculation having ruined him, is well known in the literature of nerve perturbation. The record is a story of brain exhaustion often repeated in other forms, the real nature of which is often not well understood in time, either by the family medical adviser or the public, to avert disaster. There are other phases of this morbid mental state in which a fear of mathematical inaccuracy or mental agitation on account of the interrupted rhythm are not characteristic, but where simply an insistant impulse to automatic repetition exists that will not readily down at the bidding of the normal will, even though regard for the proprieties of environment demand suppression. The constant repetition of a rhythmical movement in the mind, regardless of time or place or circumstance, and which an enfeebled volition cannot regulate to conform to the requirements of environment, characterises this symptom of brain overstrain and psycho-motor automatic impulse. Neuropathic and consequent psycho-motor neurasthenia appear to be at the bottom of this condition, or have probably been at some time in the life of the nervous mechanism, before the inception of the morbid automatic repetitional impulse. It is as much a *symptom* as the ill-at-ease, restless, tired, and fidgety state and morbid phobias of neurasthenia are symptoms.

Tuke (Psychological Dictionary) touches this subject closely under the discussion of imperative ideas, coprolalia, and obsession, and mentions the instance of a friend who wrote to him after composing a poetical work, saying in his letter that he longed to get the poetical work out of his brain and to begin on "fresh woods and pastures new," but found it "difficult to make the vibrations cease when the intellectual chimes have been set to a particular tune," recognising the brain automaticity which is an essential feature of what we are attempting to describe. I would take this case from the class of imperative ideas and place it in the new psychological class like the following, to which I would apply the new term which I coin—"autopsychorhythmia."

A handsome, bright, and accomplished young lady, aged 18 years, with a maternal unstable nerve heritage but a healthy father, a student of music, advanced and promising, came to me from a distant city suffering from exaggerated reflexes, insomnia, hyperideation, troublesome illusional fancies, and a musical rhythm continually running in her mind. Day and night the automatic repetition of tunes and musical cadences ran constantly through her mind. Upright or recumbent, in the waking state or in her fitful sleep, the automatic rhythm persisted. She thought and dreamed of music and felt its rhythmical influence continually throughout her nervous organism. Her pulse was rapid, her heartbeats were over-forceful, her pupils were abnormally mobile and dilated, her digestion was tardy but finally adequate, the bowels were torpid, the skin was relaxed, and she felt continually tired. She recovered under rest, change of environment, cessation of study and piano practice, withdrawal from musical companionship, brain-tranquillising galvanisations, ether-menthol evaporating lotions to the head, chemical brain restraint, and pepsines and laxatives. Had she continued much longer in her vicious course of incessant overstudy this handsome and promising girl would have passed from the morbid psychical automatism of neurasthenic excitability into positive insanity, as I have seen others pass, especially ambitious, self-sustaining teachers, to go beyond the line that marks the morbid psychical automatism of incessant overaction into the realm of actual insane aberration. These cases can be saved if treated in time by the alienist and neurologist, but not by any local treatment outside of the brain, unless perchance the change of environment and its influences are of so tranquillising, diverting, and restful a kind as to bring about through Nature's unaided resources the needful recuperation of the nerve instability and morbid automatism of brain overtax. If these unfortunate persons get only throat treatment they are likely to be lost, unless perchance the brain-rest from cessation of work and changed environment should bring about a cure.

A young unmarried man, who speedily became hopelessly insane and soon after died demented, displayed the beginning of his breakdown by exclaiming *sotto voce* while riding with me, "Beethoven! Beethoven!" This he would continually repeat. An aged lady, over 70 years of age, who became somewhat demented, would often repeat, "Yes, I love God! Yes, I love God!" in the midst of conversation and when alone.

A music teacher and composer of great genius, and now perfectly well, could not refrain when he first saw me from going through the movements of fingering the key-board of the piano and a tra-la-la accompaniment. He had just finished a Herculean task and was on the verge of a disastrous breakdown characterised by profound insomnia, marked general restlessness, and psychical excitability.

A charming young lady patient under my care at the asylum at Fulton, Mo., in 1870 first attracted attention by repeating a call to the chickens, of which she was very fond when at home. "Chicky, chicky, chicky," she would repeat, and as her insanity became pronounced she would say "Chicky" all day and far into the night until put to sleep by hypnotics. A suppression of the menses accompanied or preceded her insanity and returned with the return of her sanity. She recovered after six weeks' treatment with bromide of potassium, timely hypnotics, tonics, aloetic laxatives and gelsemium.

Another patient under my care at Fulton, a man of upwards of 50 years of age who had gone insane and had turned grey in a few weeks' time under the strain and misfortune of the Civil War, having lost most of his property, principally in slaves, and become suddenly bankrupt, assumed a bent-over attitude as he walked about night and day exclaiming, "My God, how can I stand it; how can a man carry the world on his shoulders?" This man, who was possessed of good physical vigour for his years and was an excessive user of tobacco, reminded me of the pictures of the mythical Atlas. After the acute stage of his malady had passed he would repeat only the words "How can I stand it?" and this utterance he would make years after the inception of his insanity, even at times when provoked to smile or when asking for a chew of tobacco, after the fires of the early mental conflagration had gone out and his life seemed to be no longer one of psychical pain. The scar remaining among the cerebral cinders kept up the automatic cerebral refrain, "My God, how can I stand it? How can I stand it?" long after he had ceased to feel the poignant mental pain of the acute stage of his disease.

The peculiarity of Samuel Johnson who, after a good deal of mental strain, could not pass a single one of the stone posts which stood at regular intervals along the pavement of the streets in his native town of Lichfield without laying his hand on the top of each one is also *apropos* to our subject. Fortunately Johnson never broke down seriously in his nerve centres. His repetitional automaticity did not pass to an extremely morbid stage.

Under the heading of "Letter Counting," the Paris correspondent of the *British Medical Journal* mentions a case in point reported to a Bordeaux society by Dr. Ginostos. The subject was a young man who since the age of 10 years had had an irresistible impulse to count the letters in a word or phrase that he heard, saw, spoke, or thought. At night he slept without dreaming. When he did not talk he invented phrases and counted the letters in them. 32 was a number that gave him satisfaction; the number 13 displeased him, but nevertheless he did not recoil from arranging phrases with 13 letters in them. This unceasing automatic operation did not in any way interfere with his daily work or his reading or with the carrying on of a conversation. A reference to this interesting case appears in the columns of a number of the *New York Medical Journal* which I do not at present recall. Echolalia, coprolalia, &c., are likewise somewhat germane to this subject as showing a similar but graver state of repetitional impulse and obsession, but rhythmic repetitional automaticity is what we are now considering. There are likewise references of interest, not wholly *mal-apropos*, in Forbes Winslow's "Obscure Diseases of the Brain and Mind." Indeed they may be found in many books devoted to psychiatry.

I have heard a chronic alcoholic repeat over and over through the day, "Little Bo-Peep, he lost his sheep, and doesn't know where to find them," &c., and have known chronic lunatics who would repeat some long-ago-learned distich or rhyme or some insanely-constructed jingle of words in maudlin monotone, from the day's beginning to the ending thereof, in all their waking hours, some of them singing their peculiar song, like the dying swan, to the end of their unfortunate lives. Some would recite their phrases backward, a transposition from the way in which the verses were written. If we carefully scan the speech and song of the insane we will find much not yet recorded and many forms of this morbid psychical display of automaticity. It has as many peculiarities of expression as the singularities of writing and speech in agraphia and amnesia and other forms of aphasia. More extended rhyming forms of speech or song, evincing mental spontaneity and sometimes marked ability of improvisation among the insane, are interesting and common in hospitals for the insane, but they do not strictly belong to our present subject. The following case has been reported by Forbes Winslow:—

> A lady who had been 18 months insane detailed to me, after her recovery, the symptoms that characterised her derangement. She [illegible] usly to her being considered [illegible] she was not "quite herself." [illegible] out of order and I had a [illegible] by great debility which con- [illegible] was during this illness that my foolish fancies began to annoy me. At this time I used to talk out loudly to myself, a thing I never did before. This was irresistible. I ejaculated the most foolish remarks, and at times, too, with wonderful volubility of speech. I did my best to control myself in this particular, but found it difficult to do so. I was quite conscious that my mind was affected, and yet no delusion had taken possession of my intellect. For several days I succeeded, by strong efforts of thought, in checking this ridiculous inclination to utter absurd expressions, but I awoke one night in an excited state, from a troublesome dream, and I began then to vociferate a number of most incoherent expressions to this effect. 'You shall do it.' 'No you sha'n't.' 'He is like Satan.' 'Why don't you say the devil?' 'Ah! Ah! Ah!' 'It is beautiful.' 'No he devils.' 'I can't be saved.' 'You have no hope.' 'Suicide.' 'Poison.' 'Hang yourself.' 'They are after you.' These strange remarks continued for nearly two hours, when I fell asleep, and arose much relieved. My mind, however, was for some time afterwards not in a right state, although I had intermissions from the misery I suffered. Eventually I became quite insane and I am informed remained so for nearly 11 months. During the [illegible] hell and tormented by evil [illegible] to be a devil. My mind was [illegible] cannot say when I first began [illegible]

I should like as forcibly as possible to call your attention, as I think Forbes Winslow has done before me, to the significance of absent-mindedness, abstraction, inattention, and what since Carpenter we have called "psychic automaticity," as precursors of mental aberration. Of course, these states signify little unless they are progressive or until they have reached the verge of morbidity with profound and uncontrollable disregard of the proprieties and harmonies of environment. Nevertheless, they are worthy of note and mean much very often to the closely observant alienist clinician. They may serve to start him in the right direction of search for grave impending psychical malady in its avertable stage.

I saw once a charmingly-voiced lady suffering from this form of cerebrasthenia and neur[illegible] while abroad cultivating her voi[illegible] rhythmical, chanting, psychical [illegible] while mistakenly having her thro[illegible] She once consulted me. I saw the impending catastrophe and could have averted it, but was not asked to treat her further and my further advice of prompt brain-rest and nerve recuperation was not followed and the catastrophe came. Her trouble began with musical cerebrasthenia.

A young manustupral neurasthenic was brought to me by his father some years ago. During my first examination of him he interrupted the proceedings, exclaiming, "It don't correspond." He had been a studious youth of good morals, and his mind was probably vaguely reverting in automatic manner to some problem in mathematics worked at in other days. I could not get him to say what he meant or to take treatment. After that he passed speedily into stuporous dementia and soon died. His mother was neurotically enfeebled at the time of his birth and his malady was evolutionally predestined, the masturbation having been an incidental developmental sequence probably as well as a contributing cause.

A gentleman of extensive business affairs who came to me on the verge of financial and business bankruptcy, but who is now after many years of health successful in a new but less harassing line of business, would continuously say to himself: "Too many irons in the fire, too many irons in the fire." His intellect was clear but his brain was jaded and unstable—in that stage of cerebrasthenia that so often precedes the final brain-break of insanity. The closing out and winding up of his business saved him for recuperation and another and less harassing and more successful career. These cases are significant to the neuro-psychological clinician and they are amenable to cure if timely treated and if we are not misled from the brain, which is the central origin of the trouble, to the peripheral symptomatic expression. Insomnia and other forms of restlessness precede and accompany their expression, as likewise do disturbed visceral states dependent upon vagus innervation. Like most voice failures and many altered chirographical expressions, the autographs of morbid brain and nerve states, as in general paralysis and disseminated and posterior spinal sclerosis, the disease is not in the organs of expression in which the symptoms show, but chiefly in the brain, the allied peripheral neural mechanism only subserviently participating. Other clinical illustrations might be cited from my experience, as, for example, some forms of choristers' and pianists' palsy, &c., but these are omitted for the sake of essential brevity and to avoid possible contention. To an audience of *savants* like that before me one word will suffice for many.

This morbid state of the nervous system is so distinctively peculiar as to be entitled to distinctive designation. All have observed it, especially those who have added to their neurological experience opportunities for extensive observation in psychiatry. It is a symptom and precursor, if unarrested, of insanity, and though it may stop short of the greater *dénouement* by fortuitous change in the life habits or thorough, timely, skilful treatment of the individual, it is a serious condition of the brain demanding our best thought and effort for its prompt relief and calling for cautious, forceful admonition as to the impending peril of its persistence. I have used, for want of a better term, "autopsychorhythmia," since under the dominance of this morbid state of brain and mental expression the mind loses to a degree its volitional spontaneity and becomes abnormally automatically rhythmical in psychical feeling and expression. And when the stage of insanity is reached the mind so expresses itself, regardless of the proprieties of place or occasion and out of normal harmony with rational environment. The distinction between morbid and normal autopsychorhythmia is in the persistent and inopportune obtrusion of the rhythmical repetition in manner not in harmony with the environment of the individual. The will does not attempt its suppression, or, if it does, it cannot, when and where the proprieties demand it, whereas within normal limits it selects suitable occasions for permitting the rhythmical repetitions that run through the mind to go on uninterruptedly and can effectually check them on proper occasions. All perfected education of the psychical neuron centres develops an automatic aptitude for easy repetition. This is not a morbid feature of mental action and is not what I have attempted to describe. It is the morbid aspects of this mental state, when normal regulated control is impaired and, in the graver conditions, lost, to which I invite attention as of significance to the neurologist and alienist. It is evidently a lesion, more or less grave, of the psychical inhibitory centres that claim our consideration and demands attention from the profession that it has thus far not adequately received. There is a neuriatrical with a psychiatrical, as well as a psychological, side to this interesting and important subject. It is the second to which I would call professional attention.

Involuntary psychical automaticity in many forms, including the feature which we are now discussing, is a forerunner of grave insanity which displays itself paramountly in lessened inhibitions of normal mental action as well as in impulsions to erratic conduct and in the many forms of automatic mental aberration revealed in the actions and speech of the acknowledged insane, both within and without asylums. All symptoms, therefore, which point in that direction, even though remotely, claim thorough investigation and prompt remedial endeavour. Brain strain like that under discussion passing the line of morbid autopsychorhythmia is always a matter of gravity and solicitude. It is the limp that precedes the paralysis of the mental gait—the beginning spasm of overuse that may end in wrong movement. The brain thus going wrong should be made to rest and be brought back by neuropsychological treatment into habits of normal action.

Dr. Martin W. Barr[1] has discussed an interesting subject akin to our theme and rather more germane to it than the various forms of aphasia under which it is generally considered—namely, echolalia. Hammond, quoting from Winslow, gives the case of a woman who always said at her prayers, "Our Father which art in hell," meaning to say "heaven," and the case of a man from his own observation who said automatically, "Saw my lew off," to any question asked. There is no connexion, in my judgment, between my subject and any form of hypothetical transcortical aphasia or the motor aphasia of Broca's speech-centre. It is neither echolalia nor coprolalia, though I agree with Tuke that echolalia and coprolalia, as some forms of aphasia and other speech-defects do, portend, like autopsychorhythmia, insanity. They are morbid impulsions, and morbid impulsions are lesions of inhibition not far in advance of oncoming psychical aberration. Coprolalia, a tendency to express as well as to repeat foul language, is often heard among the insane, even among naturally modest and cleanly-minded women. Mills[2] records the case of a refined and cultured lady who would suddenly swear and gesticulate, and that of a boy who would suddenly utter filthy language and move his head, shoulders, and arms violently. These are common symptoms in the observation of insanity. These two cases are quoted by Barr as combining palmus or myriachit and coprolalia, as they undoubtedly do. But the Jumpers of Maine are victims of impaired volition and psychomotor irritation and some of them are not far removed from insanity. Mills then very properly classes echolalia under morbid impulse rather than under aphasia[3] and had he rested there he would have remained on undebateable ground but in a later article, as Barr observes, he classes true echolalia as a characteristic symptom of transcortical sensory aphasia.[4]

A similar but not the same state of mind as that of autopsychorhythmia may be seen in the feeble-minded as in the volitional repetitions of Barr's pupils at Elwyn, Pa., which he describes as echolalia. The boy Kirtie repeating "Kirtie, come to school to-morrow; Kirtie, come to school to-morrow morning," &c., is similar but not the same. It is the voluntary habit of a feeble mind to fix a mental impression. Something similar is sometimes also the habit of the infantile mind when learning to speak.

ADDENDUM.

The form of insanity in my observation to which autopsychorhythmia tends is that in which imperative conceptions predominate or have predominated in the initial stage of the mental disease. In aggravated form it is an imperative, resistless impulse to repetition of psychical impression in the form of verbal expression. In the Dictionary of Psychological Medicine Tuke broaches this subject under the definition of imperative ideas, but he does not compass it. He briefly discusses them under echolalia and certain of the morbid fears of neurasthenia, but my subject does not include morbid fears, illusions, or hallucinations, though they may coexist with it. Psychorhythmia is a tendency of the mind more or less resistless to repeat continually and non-volitionally its once volitional actions even at inopportune time and place. It is a habit volitionally induced which has passed into a morbid automatic impulse associated with brain overstrain or excitation. The habit excites the patient's concern and sends him, if he is an intelligent man, familiar with the possible resources of psychiatry, to seek relief in special medical advice and remedy. When this condition displays itself in unrestrained impulse of speech or song to the chagrin of the individual and the surprise of his friends it is an act out of harmony with his rational character and environment and is then initial insanity.

Another feature of our subject is shown in a tendency to imitative acts, such as grimaces and stuttering and spinal-cord and motor-centre movements (jumper's palsy), which by often and long repetition have become organised automatic impulsions no longer volitional with the individual and which sometimes are seen to pass into the acts of the insane. To discuss these now *in extenso* would make this paper too prolix. In the *Alienist and Neurologist* for January, 1897, under the heading "Imperative Conceptions," I have discussed more *in extenso* this subject. I have there recorded the case of a victim of coprolalia who upon being advised to quit breaking out with sudden profanity, said: "I can't; I would that I could. I go about my work crying and talking. I will say, 'I will not do that any more,' and it will not be five minutes until I will be at it again." "I think and say such awful things. I never did so before and do not believe I want to now."

Discussing echolalia Dr. Martin W. Barr records a case under his observation of a beautiful and refined girl attending a boarding school who would at intervals give sudden expression to three words successively, the first vulgar, the second foolish, and the third profane.[5] This condition in some of its features is related when in intense morbid degree to our subject and proves its psychopathic basis and affinity with psychorhythmia. Morbid autopsychorhythmia has relation to the spasmodic word outcries of the insane—coprolalia and echolalia, &c., similar to the rhythmical spasm of athetosis in comparison with the jerky spasm of tetanus, chorea, or the spastic movement of lateral sclerosis.

The pathological lesion of autopsychorhythmia is evidently in the mind area of the brain cortex. It is truly transcortical and not localised exclusively in the speech area. It is a psychical and not purely psychomotor involvement—a psychical lesion shown in peculiarity of psychomotor expression. If in "this frame the bearings and the ties, strong connexions, nice dependencies," an ancestral "blot upon the brain" has left for transmission a latent hereditary scar of aberrant mental action, we may expect to see the psychical perversion of insanity develop under stress of brain and mind, such as destroys or weakens its normal regulating power. "That way madness lies; let us shun that." It may show in obscure, if not in plainer form, or in mental eccentricity, and thus mark and mar the after-life.

St. Louis.

---

[1] Journal of Nervous and Mental Diseases, January, 1898.

[2] Ibid., September and December, 1891.

[3] American Text-book of Diseases of Children; Speech Defects and Anomalies, p. 633, quoted by Barr.

[4] Echolalia, by Martin W. Barr, p. 6. Dercum's Text-book on Nervous Disease, first edition, p. 440.

[5] Echolalia. Journal of Neurology and Mental Disease, January, 1898, p. 20.

CORRESPONDENCE BETWEEN CHOLERA AND THE PREVALENCE OF COMMA BACTERIA IN WELL WATERS OF GUJERAT DURING THE FAMINE OF 1900.[6]

BY GEORGE LAMB, M.B., C.M. GLASG.,
CAPTAIN, INDIAN MEDICAL SERVICE.

(From the Research Laboratory, Bombay.)

AT the end of May of last year, on the suggestion of Mr. Haffkine, I was deputed by Government to make a short tour through some of the famine districts in Gujerat. The object of this tour was twofold: (1) to ascertain if the high mortality from a disease which was being returned under the name of "fever" could be accounted for by the presence of an epidemic of relapsing or spirillum fever; and (2) to examine as many water-supplies as possible for the presence of comma-shaped micro-organisms. This investigation was undertaken with a view to finding out whether any relation could be traced between the incidence of cholera and the prevalence of these organisms in the drinking waters. It is the result of the latter of these researches which I propose to put before you this evening.

---

[6] A paper read before the Bombay Medical and Physical Society on Jan. 18th, 1901.

Unfortunately, by the time I arrived on the scene the cholera epidemic had practically spent itself. It was then limited to sporadic cases in some of the districts, while in other districts it had completely died out. The investigation, however, was not without results, which if fully confirmed and extended would do much to assist us in combating epidemics similar to that which swept through the famine districts of Gujerat.

It would be well at the outset to give a brief outline of the methods which were employed in this research. These may be stated as follows. On arriving at a locality samples of as many well waters as possible were collected in small sterilised bottles. If sterilised bottles were not available each bottle was first washed out many times with the water which was to be examined. Each sample was as soon as possible after collection planted into a solution of peptone and salt (1 per cent. peptone and 0·5 per cent. salt). This culture medium, which, as is well known to all of you, favours greatly the growth and propagation of comma-shaped bacteria, was prepared as required by boiling in a small pot for one hour the requisite amount of peptone and salt in ordinary water. The solution was then allowed to cool. When cool it was divided up into ordinary wine-glasses which were covered over with pieces of paper. Both the wine-glasses and pieces of paper had been previously sterilised as far as possible by boiling them for from half an hour to one hour. The wine-glasses after insemination with the water were kept absolutely still so as not to disturb and to break up any veil which might grow on the surface. It is necessary to remark that on this medium the early growth of all comma organisms takes place on the surface where there is free exposure to the oxygen of the air. Incubation was allowed to go on for from 18 to 24 hours at room temperature, which ranged between about 80° and 100° F. Zigzags on agar slopes were then sown from the veil which had grown on the surface of the peptone, three tubes of such being prepared without recharging the needle. In this manner isolated colonies of the various bacteria which happened to be present in the veil were readily obtained for further investigation. At the same time a dry film preparation on a slide was made from the veil. All specimens, both agar cultures and slides, were at once despatched to the laboratory in Bombay for detailed examination. This examination was undertaken by Dr. Hanna and was finally completed on my return at the end of the tour. To each specimen and culture a distinguishing number only was affixed. In my notebook a description of every preparation was entered. I also carefully noted the place where these were obtained and the condition as to the prevalence of cholera there. In this way the examination of the preparations prepared by me was made independently by a man who had no knowledge of the source of the specimens. The final result was compiled by putting together these two sets of records—my own and that which was made and kept by Dr. Hanna in Bombay.

Every comma-shaped or spirillar organism isolated and obtained in pure culture was subjected to the various bacteriological tests which are used to differentiate the true cholera vibrio from other non-pathogenic commas and spirilla. It is quite unnecessary for me to enter into the details of this long and tedious investigation. It is sufficient for our present purpose to state that some of the bacteria isolated were easily differentiated from the cholera comma. On the other hand, in one or two instances it was only by means of the serum agglutination test that such a distinction was possible. This test, as you know, consists in bringing the micro-organism under investigation in contact with the diluted serum of an animal previously treated by injections of a known cholera vibrio, or *vice versâ* by treating an animal with injections of the suspected microbe, and then bringing in contact the diluted serum of this animal and a culture of a known cholera germ. In either case, if we are dealing with a true cholera organism, immobilisation, agglutination, &c., of the bacteria quickly take place. Briefly, then, I may state that the result of this research was to show us that not one of the comma-shaped bacteria which had been isolated from Gujerat waters could be termed a true cholera vibrio. There was, however, no doubt, as judged from their appearance under the microscope, their staining reactions, and their growth on different media, that they all belonged to the tribe of curved bacteria, which includes the true cholera-producing microbe.

After this point had been settled the next question was to ascertain what relation there was between the presence of these comma-shaped organisms in the waters of a district and the prevalence of cholera in that district. The data which bear on this question are as follows (*vide* Table I.):—

TABLE I.

No.	Locality.	No. of wells examined.	Commas present or not.	Condition as to the prevalence of cholera.
1	Broach Poorhouse.	One.	Present.	15 cases in all among recent arrivals; last case 11 days before.
2	Maturia Tankworks.	Two.	Present in both.	Cholera very prevalent—about a month before; at time of examination only four or five cases daily.
3	Wansar Tankworks.	Three.	Commas in one well only.	14 cases of cholera in all; last case five days before examination.
4	Kaira Missionhouse.	One.	Absent.	No cholera at time of inquiry. Cholera had been prevalent some time before.
5	Matar Poorhouse.	Two.	Present in one only.	33 cases of cholera in all; last case two days before examination.
6	Nadiad Poorhouse.	One.	Present.	No cholera for the 39 days before examination. *Recrudescence shortly afterwards.*
7	Nadiad Town.	Three.	Present in two.	Sporadic cases at time of examination. Recrudescence shortly afterwards.
8	Anand Poorhouse.	One.	Present.	62 cases of cholera in all; last case five days before examination.
9	Anand Village.	One.	Present.	Cases occurring sporadically.
10	Dakor Tankworks.	Six.	Absent in all.	Cholera very prevalent in April, when works had to be closed. Re-opened in beginning of June; no case had recurred. Examination on June 12th, 1900
11	Godhra Town.	Four.	Absent in all.	No cholera since a month.
12	Godhra Poorhouse.	Two	Absent in both.	No cholera since a month.
13	Dohad Poorhouse.	Two.	Absent in both.	No cholera at time of examination.
14	Dohad Town.	Four.	Absent in all.	No cholera at time of examination.

1. *Broach Poorhouse.*—One well; comma-shaped organisms were found in this well. 15 cases of cholera had occurred here, the last case 11 days previously to the examination.

2. *Maturia Tankworks.*—Two wells; comma-shaped bacteria were found in both. Cholera had been very prevalent about a month before. At the time of examination only four or five cases were occurring daily.

3. *Wansar Tankworks.*—Three wells; commas very like the cholera vibrio, and only able to be differentiated by means of the serum agglutination test, were found in one well. The other two wells were free from any comma vegetation. 14 cases of cholera had occurred in this camp. The last case had been admitted into hospital five days before the examination of the water.

4. *Kaira Missionhouse.*—One well; no comma-shaped organisms were found. There was no cholera here at the time of inquiry. It was reported, however, that some severe sickness, but not known of what kind, was prevalent; cholera was stated to have raged some time before the examination of the well.

5. *Matar Poorhouse.*—Two wells; commas were found in one only. 33 cases of cholera had occurred in this poorhouse previously to the examination, the last case only two days before.

6. *Nadiad Poorhouse.*—One well; comma-shaped micro-organisms were found in this well. No case of cholera had occurred among the inmates since 39 days.

7. *Nadiad Town.*—Three wells; commas were found in two out of the three. Sporadic cases of cholera were still occurring in this town, but they were not severe.

8. *Anand Poorhouse.*—One well; a comma-shaped micro-organism closely resembling the cholera vibrio was isolated from this well. 62 cases of cholera had occurred amongst

the inmates. The last case had been admitted into hospital five days before the examination of the well.

9. *Anand Village.*—One well; commas were found in this water. Sporadic cases of cholera were still occurring in the village.

10. *Dakor Tankworks.*—Six wells; no comma-shaped bacteria were found in any of these wells. Cholera had raged among the workers at this camp with such force during the month of April that the works had to be completely closed. They were opened again in the beginning of June. Since then no cases of cholera had occurred up to the date of the water examination (June 12th).

11. *Godhra Town.*—Four wells; no commas were found in any of these wells. No case of cholera had occurred in the town of Godhra itself since about a month. At the time of the water examination a few convalescent cases were being treated in the hospital. These cases, however, came from some outlying villages where the disease was still sporadic. There was no recrudescence of cholera in Godhra itself till two months after my visit.

12. *Godhra Poorhouse.*—Two wells; no comma-shaped bacteria were found in either of these wells. No case of cholera had occurred in this poorhouse since a month.

13. *Dohad Poorhouse.*—Two wells; no commas were found in either. There was no cholera in this poorhouse at the time of examination.

14. *Dohad Town.*—Four wells; no curved microbes were found in any of these water-supplies. There were no cases of cholera occurring in Dohad Town at the time of my visit there.

From the above synopsis it will be seen that 33 well waters in 14 different localities were examined. In eight of these localities comma-curved bacteria were found, while in six they were absent. In seven of the eight localities just named cases of cholera were still occurring either daily or at intervals, the last case having occurred two, five, five, and 11 days before the samples of water were taken. In one place only of the eight—viz., the poorhouse at Nadiad, to which reference will be made further on, there had been no case for the last 39 days. On the other hand, in all of the six localities where no comma-curved bacteria were detected in the laboratory my notes show that no cases of cholera were occurring at the time when the water-samples were collected for examination. There was thus a marked correspondence between the prevalence of this disease and the presence of curved micro-organisms in the water-supplies. In the case of the poorhouse at Nadiad there had been no cholera for 39 days, although curved bacteria were found in its well. Cases, however, continued in the town, and shortly after my visit Mr. Swift, the personal assistant to the Collector of Kaira, informed me that a severe recrudescence of the disease had occurred in the locality. The finding of curved bacteria there may therefore have been due to a recent re-infection of the well. The poorhouse had been practically vacated at the time of the inquiry (during the preceding week the population was reduced from 500 to 66 inmates) and such re-infection may not have had time to show in the form of cholera cases.

The above relation between the incidence of cholera in a locality and the presence of curved comma-shaped micro-organisms in the waters obtains an enhanced significance from a comparison with the result of a similar investigation which Mr. Haffkine and Dr. W. J. Simpson, then health officer of Calcutta, made into the distribution of curved bacteria in the tanks and other reservoirs in Calcutta during April, 1894. A detailed account of this research is to be found in the *Indian Medical Gazette* of March, 1895. On that occasion 82 specimens were examined; these were taken from 211 localities. 432 of these specimens were from 110 tanks, while the other 150 were taken from private wells, from drains, from the river Hoogly, from the canals, from bathing platforms, from street hydrants, in milk markets, &c. No relation between the cholera outbreak and all the last-named sources was detected. The tanks, however, gave the following result. Of the 110 tanks examined (1) 46 were tanks round which cholera existed at the time of the examination; (2) five were tanks round which cholera had existed from a month to six weeks previously and had disappeared since; and (3) 59 were tanks round which cholera had not appeared at all during the four months of 1894. Out of the 46 tanks of the first category comma-shaped organisms were found in 42—i.e., in 91 3 per cent.—and missed only in four. Out of the five tanks of the second category curved comma bacteria were found in none. And out of the 59 tanks of the third category commas were found only in 11—i.e., in 18·8 per cent.—and were not found in 44—i.e., in 81·4 per cent. The comma-shaped bacteria found in these tanks varied greatly as to their detailed characteristics, but all belonged to the class of curved bacteria which have the faculty of turning into spirilla and long threads when grown under suitable conditions. It may further be noted that these Calcutta commas and spirilla were not subjected to the serum agglutination test mentioned above. It is therefore more than probable that only a small proportion of these organisms were real cholera-producing bacteria.

The prevalence of comma-shaped micro-organisms which although not the true cholera vibrio belong to the same tribe in places where cholera exists and their absence from places free from cholera is a fact somewhat difficult of interpretation. Mr. Haffkine, commenting on this point in a recent report to Government, put forward the following hypothesis. He says that such results can best be interpreted by the supposition that the whole tribe of curved bacteria, including the typical cholera vibrio, requires for its existence similar or very comparable conditions, and that on the one hand wherever these conditions are inimical to the cholera germ, no curved bacteria of any kind are to be met with; and, on the other hand, wherever the local conditions are favourable to the growth of curved bacteria in general the true cholera-producing microbe develops and propagates in large numbers, causing an outbreak of the disease in the adjacent population. The results which were obtained in Calcutta and in Gujerat, if observed and confirmed in a number of similar instances, would tend to show that without having any information as to the actual prevalence of cholera in the districts the bacteriological examination of the waters would give a useful warning as to the danger from cholera which exists in those districts. Thus, as already mentioned, of the 14 localities in Gujerat where the waters had been taken from eight—viz., Broach Poorhouse, Maturia Tankworks, Wansar Tankworks, Matar Poorhouse, Nadiad Poorhouse, Nadiad Town, Anand Poorhouse, and Anand Village—showed themselves in the laboratory examination as presenting such a danger. The others would have been returned as free from cholera. Further, it is evident that some practical advantages may be derived from such an investigation as was carried out by this laboratory in Gujerat and by Mr. Haffkine and Dr. Simpson in Calcutta. These advantages may be briefly stated as follows:—

1. In a place vacated on account of cholera the examination of the water may help to determine the date when it becomes safe to return to the place. Thus, in April the Dakor Tankworks had to be vacated on account of cholera. In June the water-supply was examined and showed no comma-curved bacteria. As mentioned above, the people who were permitted to return during the month remained free from cholera.

2. In a place where there are only a few sporadic cases of the disease a similar examination may give warning if a serious outbreak or recrudescence is threatening. Thus, at the time of the water examination at Nadiad in the poorhouse there had been no cases for 39 days and in the town the disease existed only in a mild form. But an examination of four wells revealed in three the presence of comma-shaped bacteria. In apparent connexion with this result cholera broke out again in this locality shortly after.

3. In a locality where cholera is epidemic the bacteriological examination of the water-supply may reveal those sources which are dangerous. Now, by closing such dangerous sources or otherwise preventing the people from using the water from them, the necessity for vacating the whole locality may be avoided, and at the same time the occurrence of cases prevented. Thus among the Calcutta tanks cited above often such as were situated in close proximity differed in that some of them were free from comma vegetation and others were infected. And in accordance with this the huts situated round the former were free from the disease while those round the latter produced cases of cholera. It is evident from what I have stated that the data bearing on the question under consideration which have been collected up to the present do not permit of establishing any connexion between the result of the laboratory investigation and the exact course which an epidemic of cholera is likely to take—viz., whether it is likely to decline or to increase. For this

purpose many researches into the prevalence of these comma-shaped micro-organisms in the water-supplies at the beginning of an epidemic, during the height of the epidemic, and during its defervescence would be required.

In conclusion, I have to bring to your notice the data contained in Table II.

TABLE II.

When or how often the wells were treated with permanganate	Number of wells so treated.	Whether commas were absent or present.
The day before examination	One.	Present.
Two days before examination	Two.	Present in one; absent in one.
Regularly every day	Three.	Present in one; absent in two.
Twice a week	Six.	Absent in all.
Once a week	Five.	Present in two; absent in three.
Stated to have been treated repeatedly	Three.	Present in all.
Stated to have been treated with permanganate .. .	Four	Absent in all.
Had been treated only once	One.	Absent.
Had not been treated	One.	Present.
No information obtained ...	Seven.	Absent in six; present in one.

In this table the result as to the presence or absence of comma-curved bacteria in wells is put side by side with the information noted in my notebook as to the treatment with permanganate of potassium which the wells were stated to have undergone. The result is as follows: 1. Of the 25 wells, about which it is reported that they had been treated with permanganate, some more frequently and others less, eight contained commas. The 17 other wells treated were free. 2. In one well that had not been treated commas were found in numbers. Neither these facts nor the analysis of the connexion between the frequency of the treatment and the absence or otherwise of the commas, as shown in Table II., permit of drawing any definite conclusion as to the efficiency or otherwise of the permanganate process of treating infected waters.

Bombay.

WHEN TO OPERATE IN PERFORATIVE PERITONITIS.[1]

BY ARTHUR C. ROPER, F.R.C.S. EDIN.,

SURGEON TO THE ROYAL DEVON AND EXETER HOSPITAL.

I HAVE found during the last few years that considerable difference of opinion exists among us as to the occasions and the time for opening the abdomen in serious and sudden emergencies, and since I think it will be useful for us carefully to consider and to discuss the question I propose as a basis for such discussion to give you the *main principles* upon which my practice in such cases is founded. One paper would not suffice to deal with all the abdominal emergencies in which laparotomy is, according to modern surgical practice, demanded, so I propose to discuss in this paper one of the commonest, and therefore most important, clinical groups—viz., perforative peritonitis.

The diagnosis is the first important matter that we have to settle, and we must in many cases settle it quickly if we are to save our patient's life by operation. I remember a case of perforating ulcer of the duodenum in a patient of mine who died within 14 hours of the perforation without rallying in any proper sense of the word from the initial shock. The case occurred before the days when operation in these cases was generally practised, and the post-mortem examination showed that the ulcer was in an inaccessible situation at the back of the duodenum; but the point which I wish to press home is the extreme urgency of these cases and the fatal danger of delay. The diagnosis, then, has to be made and made at once if possible, so let us consider with what lesions perforative peritonitis—i.e., peritonitis caused by the rupture or ulceration, actual or potential, of some viscus or abscess into the peritoneum, and the diffusion of its contents over that sensitive lymphatic area—may be confounded

Gall-stone and renal colic we must mention. We are not likely to confound them, although I have been in doubt about such cases. The onset is not very dissimilar, but in other respects the conditions have not much in common. Peritonitis non-perforative in origin is, of course, the chief crux, and here I find my surgical sense asking my medical conscience this question—"Do you really believe in a peritonitis which has its origin in a cause not remediable by surgical treatment?" and if you except the rare but well-known and easily recognisable cases which arise from a septic condition of the system such as those which occur in the course of scarlet fever, puerperal septicæmia, pelvic cellulitis, and the like, I must say that I do not. Tuberculous peritonitis may be named together with a ruptured hydatid, but both are more or less surgical conditions. I hear occasionally of peritonitis from exposure to chill, but I cannot honestly say that I believe in chill as a real and fundamental cause of the disease. There are many causes other than perforation, but most of them would be dealt with in a paper on intestinal obstruction, and they require consideration from the surgical point of view.

We are called, say, to a case of perforated gastric ulcer. We arrive soon after perforation has occurred and we find the patient in agony. Everything shows us that it is so and that the case is most serious. The patient's aspect is one of terror and expectancy—terror of the fearful pain which is every moment increasing in severity until it threatens to overwhelm sense and life. The terror-stricken look is that of shock—pallor, sweating, starting eyes, parted lips, and clenched teeth are all there. The pinched nose and sunken cheek give the facies abdominalis and afford you the first clue to your diagnosis. Is the sufferer rolling about in the bed? If so it is probably not peritonitis but a colic, intestinal, biliary, or renal Patients with peritonitis keep their abdominal muscles very still. They may toss the arms about or roll the head in the restlessness of severe pain and collapse, but they do not move the abdomen. You will probably observe or hear that vomiting has occurred, and retching may be actually in process at the time of your visit. Too much stress must not be laid upon this symptom, because in perforation of the stomach, if the stomach is empty at the time there may be little or none, and even if a meal has been recently taken the first copious vomit rids it of its contents and the symptom ceases. Persistent vomiting is a symptom rather of intestinal obstruction than of perforation. The temperature is unimportant at this early stage, but it is most likely to be subnormal during the first few hours. You next feel the pulse, and it is the pulse of shock in a typical case—small and rapid—though I have seen cases where its pace has been scarcely at all accelerated. Then, if you have not already heard the story of the commencement of the attack you inquire and you find that it has been more or less sudden. There may have been a slight similar attack which passed off rapidly a short time previously, but if you have not been attending and guarding against such a catastrophe *as has occurred you find that it* has come on without warning. Possibly your patient has been sitting still or even asleep in bed, though more usually some slight exertion seems to have determined the attack. By this time you have a strong suspicion of peritonitis, and your mind then travels rapidly over the few viscera the, perforation of which may have caused it—viz., the appendix, the stomach, the intestine, the gall-bladder, or, in a woman, the Fallopian tubes and ovaries. I have seen within the last three weeks two cases of pelvic cellulitis in which the onset of peritonitis exactly resembled that of perforation. To guide you further you put a few leading questions as to the organ from which the lesion originates. First, the appendix. Has there been any previous illness, with abdominal pain, constipation, and tenderness in the right iliac region? If so, how many attacks and at what intervals? Next the stomach. Any indigestion, flatulence, or pain after meals? If so at what interval after? Especially must inquiry about vomiting, hæmatemesis, and melæna be made. Thirdly, the intestines, which rarely perforate save in diarrhœa from typhoid fever or in tuberculous ulcer. *Fourthly*, the gall-bladder. Jaundice and gall-stone colic with tenderness.

---

[1] A paper read at a meeting of the Devon and Exeter Medico-Chirurgical Society on Feb. 15th, 1901.

Fifthly, the Fallopian tubes and ovaries. In this connexion you must think of ruptured tubal pregnancy which is remarkably like perforated gastric ulcer in its onset. Pyosalpinx, bursting into the peritoneum. Pelvic cellulitis I have already spoken of. In connexion with the ovaries you will inquire for the presence of a tumour which may have disappeared, for there may have been a ruptured cyst, or a suppurating cyst, or a cyst the pedicle of which has become twisted. Having obtained as much information as you can get or require without harassing your patient you proceed to examine the abdomen. Be careful to have it thoroughly exposed and in as good a light as possible. In the early stage of peritonitis you will almost certainly find that the abdominal respiratory movements are either greatly diminished or altogether absent and that there is rigidity of the abdominal muscles. There is no distension at this period, unless it pre-existed, but peristaltic movements may sometimes be seen. Palpation elicits in addition to the rigidity that the abdomen is tender, probably exquisitely so, but this depends in great measure on the ability of the patient to endure pain. Percussion, lightly performed because it is painful, will, if two or three hours have elapsed since the perforation, tell you that there is fluid in the flanks, a most important sign, and further it may furnish you with evidence of free gas in the abdomen by showing diminished liver dulness. If this free gas is clearly demonstrable it places the diagnosis of perforation of the stomach or intestine beyond reasonable doubt.

I have enumerated the four cardinal signs upon which I am accustomed to rely for my diagnosis of perforation in the early stage—i.e., for the first few hours after it has occurred: (1) rigidity, (2) tenderness, (3) presence of fluid, and (4) free gas in the peritoneum; and to these should be added, of course, the pain and signs of collapse. But before considering them and their significance in greater detail I will take you a little further with our supposititious case.

We will suppose that, for some good reason, either that you have been unable to attend immediately to the first summons or that you have sent for assistance, or that you are called in consultation upon the case several hours after the catastrophe—what will you probably find? A period of calm after the storm. The patient looking fairly comfortable, the pulse a little faster and small but not alarming, the temperature slightly above the normal, cessation of the vomiting, the agonising pain gone, and the patient expressing himself as feeling fairly comfortable and in a fair way to recovery. You examine the abdomen and what do you find? 1. Rigidity giving place to distension, but still there is immobility in respiration. 2 Tenderness still present, though in less degree and not so general. In an appendix case the localisation of the pain at this stage may be an invaluable guide. 3. Free fluid probably increased, though you must not forget that great distension of the intestines may obliterate the percussion dulness in the flanks by displacing the fluid. 4. You will probably find that neither fæces nor wind have passed per rectum. I have myself been deceived by this apparent extraordinary amelioration of the symptoms, and I have seen men of far greater experience than I can claim thoroughly taken in by it. But this period is the golden opportunity for operating, or even for removing a patient to a hospital or place suitable for operating in; and, while I personally should not deliberately wait for it as the elective period for operation, I should not, having made my diagnosis at an earlier stage, or seeing the case for the first time in this stage, when a competent man had earlier diagnosed perforation—I should not, I repeat, refuse to operate because the patient had apparently become so much better.

In the foregoing paragraph I have twice used the word "apparent" in connexion with the improved condition of our patient, and I think that if we spend a few minutes in considering the pathology of the symptoms we shall better see why the improvement is rather apparent than real. Let us first take the most obvious and to the patient most urgent, symptom, pain. What causes it? Do you at once exclaim, "Why of course the presence of foreign matter in the peritoneum"? To a certain extent I agree. I can well understand and realise that acid gastric juice and digestive ferments, especially when to them are added portions of solid food, would be an instantaneous cause of most terrible pain to the sensitive peritoneum. But how about the warm, creamy pus from a ruptured pyosalpinx? There is not at first sight anything so instantaneously pain-producing in this. It will in a short time produce peritonitis by inoculation with saprophytic germs, but the pain is instantaneous and severe; it suddenly doubles a man up when he is walking in the street, and he will describe the sensation of "something giving way in his inside." Again, the pain diminishes after the first severe bout, but the food particles are not absorbed. "They are diluted by the outpoured peritoneal fluid," you say. This will hold good as an argument when dealing with the gastric contents but not for the septic pus. Dilution will only serve to disseminate the latter. Time will not allow me to elaborate this interesting point, but I will just say that I think that the first shock of the irritating fluid from stomach or abscess causes a vaso-motor paralysis—immediate or spreading, dilatation of the peritoneal bloodvessels, and roughening from hyperæmia of the hitherto smooth endothelial surface, and that the pain is caused mainly by irregular peristalsis of the intestines in these altered conditions. Septic intoxication of the local nerve ganglia, assisted oftentimes by an opiate, then arises, and the period of rest supervenes because the peristalsis ceases. In other words, the intestines become paralysed; and the resulting inability to pass wind or fæces gives rise to a condition of obstruction. I should like to note in passing that this is often a cause of a mistake in diagnosis, because all medical men do not realise that peritonitis is a cause of paralysis of the bowel and so of obstruction. The bowel being paralysed is unable to carry on its peristaltic action, and with the cessation of movement you get cessation of pain. If this were all one would be inclined to say "very good" but the effect of the paralysis does not stop here. The bowel having lost its peristaltic movements has also lost its contractile power, and it stretches with the pressure of gases inside it, and so you get the condition of distension. Before this increasing distension the rigidity rapidly yields; if it did not so yield I suppose that the pain of distension would be considerable, and the displacement of the heart by the accumulating gases in the intestine might be rapidly fatal.

In such a case as I have pictured I have no hesitation in saying that the first thing you must do is to make your diagnosis, and then to give an anodyne. In perforating gastric ulcer you must give a hypodermic injection of morphia—a quarter of a grain is usually sufficient—to relieve the pain, to counteract shock, and to assist the patient as speedily as may be to the second stage. But in the meantime you must not be idle, you must prepare for the operation which is imperatively demanded. Send for your operator or your assistant, for your chloroformist and for a nurse, if the operation is to be performed at the patient's house. If such a course is inadvisable or impracticable you must arrange to have your patient removed as comfortably and as speedily as possible to a suitable place.

The case which I have just sketched is of the perforating gastric ulcer type, but there is another form of perforative peritonitis which is usually associated with the appendix and in which it is by no means so easy to come to a decision. The term "perforative" is used in the potential or future sense rather than in the past or perfect, and signifies threatening perforation. These cases have usually a history which is of great assistance in localising the seat of mischief, but as the appendix is usually the offending organ we will take such a case as a type. The illness begins with a well-marked sudden and severe pain, not by any means always referred to the right iliac fossa. It is quite as common in my experience for the pain to begin round the umbilicus, and so you may jump to a hasty conclusion that it is a case of intestinal colic. Again, the pain may be at the splenic flexure of the colon—a common place for "windy spasms" in dyspeptic, tea-drinking women. The symptoms may not be very severe to begin with and may develop more slowly, taking, it may be, some hours to arrive at their maximum. The pain will increase to the point of severity and you get the collapse. The pulse may be as bad as in the last case which we considered, but it may be only rather quicker and smaller than normal. The special abdominal signs—rigidity, absence of respiratory movements, and tenderness—will be present, and I need hardly say that in appendix cases you usually get, sooner or later, a particularly tender spot midway between the umbilicus and the iliac crest. Important evidence as to tenderness localised in the right iliac fossa is obtainable from a rectal examination, which should always, I think, be made in these cases. So far the case resembles an ordinary appendicitis, but let us suppose that the symptoms are severe all round, so that we have good reason to fear the formation of abscess. In these cases you also get the second stage of rest, and in proportion as the first stage has been mild you will be likely to be deceived by the amelioration of symptoms at this time. Careful attention to the condition of the abdomen alone can save you from mistake. Here the temperature is of great importance, because the absorption of pus or of its toxins by the cellular tissue in and around the *appendix causes* a well-marked rise of temperature.

We have arrived, then, at suspecting the formation of pus in connexion with a perforated appendix. We only suspect pus. We have not yet got beyond the point where we can say definitely that the appendix is the seat of trouble. What we want to know is whether the appendix has perforated. Then, if so, whether it has perforated in a situation where adhesions will rapidly form and shut off the general peritoneal cavity, or thirdly, whether it has given way in a position which will speedily overwhelm the patient with a general septic peritonitis. These are points of supreme importance, because, in the first case, if no perforation has occurred and abscess is unlikely, it is better to let the attack subside and to remove the appendix when things have *quieted down. Secondly, if the appendix is in its* usual position, behind or to the outer side of the cæcum, an abscess may form, but local peritonitis will probably shut off and guard the general cavity from the dire effects of the foul pus. To find such an abscess in the early stage of its formation is by no means easy, and in seeking it one can easily destroy nature's barrier, and, with a small abscess of, say, two drachms in amount disperse it over the peritoneum in endeavouring to discover it; whereas if we allow it to increase to a considerable size we shall be able easily and satisfactorily to evacuate it. The third consideration which I have in my mind is fortunately the least common and is that in which the appendix runs inwards towards the middle line of the abdomen or over the pelvis. A long appendix one can picture hanging over the pelvis and almost dropping pus into the pelvic peritoneum.

Now how are we to decide in a given case as to which of these conditions is probably before us? I think that there are three things upon which we may rely with some sense of security. They are; (1) the condition of the patient—the pulse, the temperature, and the aspect; (2) the condition of the abdomen; and (3) the presence or absence of a swelling. We will leave the condition of the patient for a minute while *we briefly consider the second and third signs.*

The condition of the abdomen.—This has to be considered from the point of view as to whether distension has come on, and whether the peritonitis causing it is general or local. The former we can see at a glance, and we will suppose that the stage of rigidity has passed into that of distension. We shall lightly percuss the flanks to see whether there is dulness—i.e., fluid or exudation—and shall very likely find that there is impaired resonance if not actual dulness in the right flank from exudation, and that the left is tympanitic If the left flank is also dull we shall know that the peritonitis is rather more than a local one and that fluid is accumulating in the general cavity—though I think that in appendix cases this is a rare condition Because distension is general over the abdomen we must not necessarily infer that the peritonitis is also general or that the paralysis of the intestine is complete. We shall very likely find that on the left side pressure can be made with little or no pain, and we can infer from that that the peritonitis is not universal. Paralytic distension of the bowel is usually extended far beyond the site of the lesion or local peritonitis which causes it If we hear gurgling or see peristaltic movements we shall know that paralysis in not complete, but we can do more than this. We can pass a rectal tube and see whether flatus escapes, or we can give a turpentine enema which may also serve the useful purpose of clearing out the rectum and sigmoid flexure. If we find then that contractile power is left in the bowel we infer that the general abdominal condition is not very bad at present.

The presence of a swelling in the right iliac fossa.—What constitutes the swelling in a case of appendicitis? First, the persistent rigidity of the muscles over an inflamed spot—rigidity which does not yield as readily or as rapidly as that over the rest of the abdomen. Deeper you have œdema of the transversalis fascia, of the omentum, and of the cæcum and adjoining intestine with matting together thereof. Indeed, all the cellular tissue of all the structures involved in the inflammation is infiltrated with lymph and serum, and being thus hardened and fixed gives rise to a palpable swelling. Now this swelling is a good sign, for it shows that nature is making a good fight and is putting barriers between the poisonous pus and the general peritoneal cavity. In a very few hours, probably before pus will have had time to form, nature will have made the passage to the abdomen impregnable to its assaults. As a rule, then, the presence of a definite tumour without distinct signs of pus in it relieves our minds of pressing anxiety. We must assiduously watch the pulse and temperature, in four-hourly observations if such can be arranged for, because although we are tolerably (though not entirely) free from the danger of pus entering the peritoneal cavity, we have to recollect that the pus in these cases is very fœtid and very virulent and may soon destroy not only the appendix (that is not much loss) but even adjacent bowel, as I have seen in more than one case which has been left too long unopened.

The condition of the patient.—This is the principal and important point upon which we have to form an opinion based almost entirely upon our own experience. The second and third signs are purely objective and can be seen or discovered with ordinary care by the merest tyro, but experience and ripe judgment are needed to *decide whether the patient is suffering from a septic peri*tonitis which will very soon kill him, or whether he has a local condition which he can easily last through for some days and finally recover from when the appendicitis resolves or the local abscess is opened. It is most difficult to convey to others the points, minutely balanced *pro* and *con*, with the reservations which one has in one's own mind in considering such a case, and were I to attempt the task I should, I fear, only obscure the subject of our discussion. I will, therefore, put it broadly into two types, the sthenic and asthenic.

The sthenic you can afford to watch. The patient's face is possibly flushed, he is alert, and gives you the impression of reserved strength, but he has no delirium. Delirium in surgery is a danger-signal of grave significance. The pulse may be fast, and even small, from the contracted artery of peritonitis, but it is in accord with the temperature, which is high, say, 103° or 104° F, and has power and tension. In such a case you can, I say, afford to wait, especially if the distension is not alarming and you can feel a distinct swelling. But you must have a very clear idea as to what you are waiting for You are waiting for one of two things, either the resolution of the inflammation without abscess or the *earliest possible moment* when you can safely evacuate the pus, the presence of which you have diagnosed and the potency of which for ill you dread—pus which you have diagnosed either from the temperature chart, from a rigor, from a local œdema of the skin, or from the presence of fluctuation in the swelling I say the earliest possible moment, because I recently saw a case most severe in all its stages in which the patient and his friends absolutely refused me permission *to operate in the earlier stages and* I did not consider it a case to press. I diagnosed and localised the abscess and said that it should be evacuated; indeed, I offered to see the case the next day and to do the operation. Early the next morning the abscess burst into the peritoneal cavity and the man died The diagnosis and course of the case were verified post mortem. Now, I believe that if I had insisted more strongly upon the immediate danger that the abscess was to *his life I might have over*come their repugnance to the operation which I knew and declared to be necessary. But it seemed to me to be so certain that it would be soon pointing over the iliac crest that the idea of its finding its way into the peritoneum hardly crossed my mind I hope that I have learned that lesson. One word more on the sthenic type. If you are watching such a case and the temperature suddenly falls without a corresponding improvement in the pulse you should decide on immediate operation, as it probably indicates a sloughing of the appendix at least and may mean something more serious.

The asthenic type is the last that we have to consider and is the most dangerous as well as the most difficult to decide upon. I am not referring to cases which are moribund when you first see them—cases in which pain has been deadened by repeated opiates and which have been allowed to drift through the first and second stages until the patients are all but dead from septicæmia and with probably multiple septic abscesses in the liver; cases in which blue lips and fingers with a thready, rapid, or uncountable pulse tell that dissolution is imminent. Operation can do no good in such a case; it will only hasten the inevitable termination. In such a case you can only try with heart-stimulants, strychnine, brandy, and the like to restore the circulation to a point at which you might be justified in operating; but if, as is probable, your efforts in this direction fail you must not discredit surgery by doing a useless operation. In such a condition I doubt whether one is justified—nay, I do not think that one is—in subjecting the patient even to the examination necessary to found a diagnosis upon. No; the type of which I speak is that in which there is evidently profound disturbance. The complexion is pale or sallow, the pulse is rapid, small, and compressible, and the temperature is only slightly raised—not at all the temperature which one likes to see with the quick pulse. Or, again, the pulse and the temperature may neither of them be much increased, but still the patient, who has the history of appendix trouble and the abdomen of peritonitis, is evidently suffering from profound septic poisoning. In such a case you at once look for the swelling, and if you find it, you may conclude—particularly if it is known to have been present for a day or two, and the patient is at the end of the first week of his disease—that there is an abscess which is doing damage, that the appendix has sloughed or is sloughing, and that the abscess is dangerously near to perforating, even if it has not already done so, the peritoneal cavity. If you come to this conclusion you will of course arrange for immediate operation. But, you may not always have the help of finding the swelling, either because it is so slight as to be unrecognisable or the abdominal distension is so great as to mask it. I want you clearly to understand the situation. A patient with a history of appendicitis with symptoms of severe septicæmia of a low type evidently dangerously ill, the abdomen swollen but not very tender, and no swelling in the right iliac fossa that you can detect. What is to be done? Well, first, if it is a woman make quite sure that it is not pelvic peritonitis arising from pelvic cellulitis. I have quite recently seen a case, and can recall another, in which a vaginal examination saved the situation so far as I was concerned, and the patients went through their attacks satisfactorily. Having satisfied yourself that this is not present I think that an operation should be done to discover whether there is pus in the abdomen in connexion with the appendix or Fallopian tube. The operation is difficult and the prognosis is doubtful, but the risk of the operation is less than that of letting the patient run on to almost certain death. These cases are fortunately rare and are usually connected with an appendix which is tucked away behind the cæcum or colon or to the inner side of them and are due to the insufficient protection of the abdominal cavity by adhesions, so that a larger portion of the peritoneum is exposed to septic infection than is compatible with life.

I have indicated, I think, the conditions in which I should operate, but before concluding I should like to say a word about the propriety of refraining from operating during the condition of profound shock which often obtains at the onset of these cases. The condition is purely one of shock, because the history will tell you that the patient has only been ill for an hour or two. If I find a patient in this condition of shock and with a very rapid pulse—130 and upwards—I prefer not to add to the shock of the disease by the shock of an operation. The patient has, in my opinion, a better chance of recovery if you first rally him with strychnine, brandy, and a dose of opium. It is bad surgery to wait in a case of perforated gastric ulcer unless you have strong reasons for doing so, and I can think of no other reason than this that would make me delay. You can, as I have said earlier, utilise the time of waiting by preparing for the operation, and probably by the time that you have everything ready the pulse will have improved sufficiently for you to feel happy in carrying out the treatment that is so urgently needed.

A word in conclusion about opiates. To relieve the agonising pain at the beginning of the attack—and we must remember that the pain enhances the shock—an opiate is usually necessary; but if persisted with—if, that is to say, we keep the patient under the influence of opium—we obscure the diagnosis and increase the distension. I dislike morphia for the latter reason, I always think that it is more of a bowel paralyser than opium. If possible make your diagnosis before you give an opiate; if you cannot, then give the opiate and see the patient again in from four to six hours (in the case of suspected gastric perforation four hours is too long) and again try your best to make sure of the seat of trouble. You will then be able to ascertain for yourself whether more opium is necessary, and, if pain demands it, you can order another dose; but you will have had the advantage of observing the developed abdominal condition when the patient has more or less thrown off the effect of your first dose. You will be doing the right thing by your patient and yourself if you insist on no opiate being given, except in your presence, until you have arrived at your diagnosis.

Exeter.

RECURRING ATTACKS OF CATALEPSY ALTERNATING WITH VIOLENT MENTAL EXCITEMENT.

BY W. G. STONE, M.A., M.D. OXON., F.R.C.S. ENG.

THE patient whose symptoms are here described has been known to me since Nov. 15th, 1900. She is a tall, thin woman, aged 27 years, married, but without children. She consulted me with regard to intense headache, from which she had been suffering for the two previous nights, the pain being situated in the supra-orbital and occipital regions. She told me that it came on about 3 A.M., that she was sick two or three hours later, and that she was free from pain but exhausted by 10 A.M. She had had one similar attack about six weeks earlier. She also mentioned at this time that she was subject to temporary attacks of dimness of vision and that she had noticed the great size of the pupils at such times. There were no symptoms suggestive of increased tension and no ocular error could be detected at the time of her visit.

With regard to her family history, her mother, who is known to me, is subject to very violent attacks of temper, so severe, indeed, as to make her home almost uninhabitable to her husband and children. In her ordinary life she is quiet and pleasant, but when excited she loses all control of herself, using the most abusive language, and seeming for the time to be really dangerous. She has, however, never suffered from definite delusions of any kind, nor has she shown much evidence of hysteria of a milder form. In other members of the family there is no record of nervous troubles that I can discover.

As to the personal history, the daughter is usually of a bright and lively disposition; she is fond of amusement and is very happy in her home life. She is not liable to sudden fits of crying or any of the milder hysterical outbreaks. Her first mental symptoms appeared after her marriage, which occurred three years ago. One night, while staying at Ventnor for her honeymoon, she became violently and ungovernably excited and remained in this condition for three hours. Since that time the excitement had been apt to recur at or after the menstrual periods, and I am told that at such times she "wandered in her mind"; she had been heard by her husband to mutter "I must do it," and had twice been seen by him "looking for a razor." She also had spoken of a wish to destroy herself. The menstrual loss was excessive, lasting for fully a week; and it had usually been accompanied on the second day by great pain as well as by vomiting. She obtained considerable temporary benefit from a prolonged course of ergot in 1898, and the decrease of menorrhagia was accompanied by a decrease of mental symptoms. Six months after her marriage she had a prolonged febrile illness which was diagnosed with some hesitation as enteric fever; in this the mental symptoms were very pronounced and there was great insomnia.

When first seen by me she was anæmic and very thin but without positive signs of disease except the menorrhagia already mentioned. The temperature was normal; the tongue was fairly clear and moist, though she had much constipation. The heart sounds were normal; the pulse was small and rather tense but regular; the lungs were normal; sensation, muscular power, smell, taste, and hearing were unaffected. The knee-jerks were present. There were no tremors and no giddiness; the pupils reacted to light and accommodation; the movements of the eyeballs were normal. There were no ovarian tenderness and no tenderness along the spine. The urine was normal. The appetite was poor, especially during the daytime, when she took her meals alone. On Nov. 24th she again came to me complaining of headache. She was at the end of a menstrual period, during the whole of which her headache had persisted; the period had lasted eight days, but the loss had been less than usual. She seemed to improve for a day or two and the catamenia ceased, but a season of intense mental excitement then ensued. It lasted for two days and for that time sleep was quite absent. She could converse and argue with those about her but did not recognise them. On recovering two days later she found that she had no recollection of the interim. "She had lost two whole days," as she said. I saw her several times while in this condition. On the first occasion she was excited when I arrived—struggling violently to get out of bed, tearing her hair, and striking her head with her hands or knocking them violently against the rails at the head of the bed. Then she would fall back, seemingly exhausted, but suddenly would leave this condition to sing, in the manner of Ophelia, little snatches of song She did not know me at all and was indignant that her medical attendant had not come as he promised. I said that I was he, but she replied, "I know you're not: he would not have been so rude." Then she added, spasmodically: "Your hair's all rough; you might have brushed your hair"; and then began struggling violently to get out of bed. But she had no other definite delusions; she did not, at any rate, imagine that she saw or heard more than the rest of us. All this time she complained of throbbing pain on the top of her head. An ice-bag gave some relief to it, but still she got no sleep. Bromide of potassium with chloral hydrate were given in the evening without effect; also on another occasion caffeine and phenacetin, and a third time inhalation of amyl nitrite. Some benefit was apparently derived from a mixture containing valerian with spiritus ætheris co. During the two days of excitement she was constipated, with a dry, furred tongue, and very thirsty, but with a normal temperature. Nothing excited her more than the proposal to have a nurse in attendance, and she threatened to do her serious bodily harm "if one of those frillicaps was brought." In two days' time the excitement subsided and she had some very good sleep, awaking, as has been mentioned, without any recollection of the last 48 hours. This was on Nov. 30th. She improved during the next fortnight and kept her bed during the whole of the next monthly period. This passed without violent excitement. There was some pain, but less than usual; the period lasted a little over a week, and 18 diapers were used. One day she passed a membranous cast of the uterine cavity and said that the same thing had also occurred some months previously. As this suggested a cause for her dysmenorrhœa, menorrhagia, and sterility, a vaginal examination was advised when the period had been followed *by a fortnight of fair health. It was then that a definite* cataleptic condition was first observed, but there was reason to suspect that the faints reported by her friends during the two days of excitement might have been in reality cataleptic seizures.

The vaginal examination took place on Jan. 1st, 1901. She had felt nervous on the morning of that day and had taken a dose of the valerian mixture of her own accord. A bimanual examination was made in the dorsal position with only moderate struggling, but on the attempt to introduce a speculum she became violently excited and it was at once evident that the attempt must be abandoned. She tore her hair, struggled terrifically, and cried out, "You have made me mad," "I am a mad woman," shrieking again and again. Some valerian was administered with difficulty and then the cheek was sharply slapped with a wet towel. Upon this she fell back and her friends said that she "had fainted again" She lay unconscious, but with her eyes open, fixed, and slightly turned upwards. She was slightly pale, her mouth was half opened, she breathed quietly, but rather shallowly, and the pulse was soft but not weak, with a rate of about 80; the reflexes were not examined. The limbs were found to be in a typical condition of flexibilitas cerea. There was scarcely any resistance or stiffness when the joints were moved, but the limbs remained just as they were placed, though they felt so plastic and unresisting that I thought they would drop at once when let go. I first raised each arm and left it in this posture; then I flexed all the joints, shoulder, elbow, wrist, and fingers, and they stayed flexed; then I straightened each joint separately; and lastly put the arm so that it formed an angle of 30° with the surface of the bed, when gravity would have every advantage over the supporting muscles. In no case was there any feeling of rigidity, but in every case the arm stayed as it was placed. The same was then found to be true of all the joints of each leg, and lastly, I put the patient in a sitting position and she remained sitting upright, while the head was bent first to the right, then to the left, then right back so that the face looked towards the ceiling, and finally bowed forward. On each occasion the forced position was maintained by the patient's muscles, though she remained completely unconscious. After about seven minutes the cataleptic state was succeeded by a period of renewed excitement. She again struggled maniacally, and then would laugh or scream or sing short snatches of song. This ceased as before on the cheek being slapped repeatedly with a wet towel, but only to be followed by another shorter cataleptic attack similar to the former one. As this passed away she gradually regained her natural consciousness, though still showing occasional tendency to excitement. In the evening she was quite herself and remembered little of what had occurred. She regretted that the examination had been incomplete and a few days later decided to submit to examination under an anæsthetic. This was accomplished shortly after the next menstrual period. Gas and ether were administered; the uterus was dilated and curetted; and, under careful nursing, the time following the return of consciousness was passed without any hysterical manifestation. She has since had two normal periods and is now gaining strength and weight, suffering but slightly from headache and quite free from any form of violent nervous excitement.

Denmark-hill, S E

ON THE CAUSATION AND TREATMENT OF PROFUSE EPISTAXIS IN PEOPLE BEYOND MIDDLE AGE.

BY GEORGE COATES, M.A , M.D. OXON., M.R C S ENG.

I HAVE had a very interesting series of five cases of profuse epistaxis not caused by a blow or injury but coming on without any apparent cause in adults aged 50 years and upwards, all of whom I have known and watched for several years both before and after the attack, and in whom I have been able to trace the series of events which caused and followed it. The attacks have been sudden in their onset, and profuse, generally lasting from half an hour to an hour or more, and tending to recur for several days. The cases are briefly as follows:—

CASE 1.—The patient was a gouty man. He had had a severe attack of epistaxis 17 years ago, which was finally stopped by plugging the posterior nares in the usual manner. At the same time he developed cardiac disease, i e., well-marked mitral regurgitation. He died 15 years later, aged 82 years, from bronchitis and pneumonia. There was some chronic nephritis.

CASE 2.—The patient was a woman, aged 52 years. She had had profuse epistaxis seven years ago, which also was finally stopped by plugging the posterior nares. She developed mitral regurgitation at the same time. She is now alive and well.

CASE 3.—The patient was a man, aged 68 years. He had epistaxis four years ago. He developed aortic regurgitation at the same time. He was treated with blue pill and a mixture of sulphate of quinine and sulphate of magnesia and rest in bed. Plugging was not necessary.

CASE 4.—The patient *in this case was a woman, aged 64* years, who had suffered for at least 10 years from high arterial tension.

CASE 5.—The patient was a woman, aged 68 years, who had suffered for several years from high arterial tension due to arterio-capillary fibrosis and from contracted granular kidney.

With the exception of the patient in Case 1 all the others are now alive. In Case 4 and Case 5 the patients did not develop any valvular lesion. The epistaxis in both of these followed exposure to cold when they were very tired; they both had over-exerted themselves for many days and then got thoroughly chilled In both, the epistaxis was cured by administering nitro-glycerine and tincture of strophanthus.

In all these cases the sequence of events which led up to the epistaxis was essentially the same, namely:—

(*a*) Long-continued high arterial pressure. (*b*) Some sudden cardiac failure. In Cases 1, 2, and 3 the epistaxis arose from the giving way of a valve. In Case 4 and Case 5 it arose from loss of power of the cardiac wall. (*c*) Over-filling of the whole venous system, the weakened heart not being able sufficiently to empty the engorged veins against the high pressure in the arterial system due to contracted arterioles. (*d*) Leakage from an over-filled vein. In Cases 1, 2, and 3, in which the patients all had a good amount of muscular strength and vigour, the heart had gone on working against this high pressure until a valve, aortic or mitral, gave way. This, of course, diminished the efficacy of the heart as a pump but did not diminish the contraction of the arterioles. Hence followed a sudden change in the circulation of the blood and an increase of blood-pressure in the veins to such an extent that nature gave relief by a copious epistaxis. Although the presence of the valvular murmur was noted at the time and I was surprised to find it as a new feature in each case, yet it was not recognised that the alteration in the circulation which produced the murmur was the cause of the epistaxis. In Case 4 and Case 5 there was not enough vigour of constitution in the patients for the heart to be sufficiently strong to raise the arterial pressure high enough to cause valvular leakage. In them, however, the same state of venous engorgement was produced in the following manner. They had both over-exerted themselves and felt very tired for some days, then when exposure to cold constricted their superficial vessels such a sudden increase of work was thrown on the heart that the tired muscle was no longer able to do its work efficiently. Here again the veins became over-filled and epistaxis occurred. Both these last cases were caused by the same spell of cold weather and various remedies as suggested in the various text-books were tried with little result. When seeing the patient in Case 4 the thought occurred, Why not try to relax the arteries and strengthen the heart so as to get the veins emptied naturally? Nitro-glycerine was given and was perfectly successful; as soon as the smaller arteries were sufficiently dilated the bleeding stopped. In Case 5, a short time later, the same treatment was adopted and the same result followed. The patients were both kept slightly under the influence of nitro-glycerine for some days and tincture of strophanthus was given as well. A few weeks ago No. 2 was in a poor state of health and began to suffer again from epistaxis. She was at once put on nitro-glycerine and small doses of strychnine, with the result that the epistaxis ceased and did not recur. These cases, taken together, form a suggestive series and appear to lead to an obvious conclusion and I think that the result of the treatment in Cases 2, 4, and 5 shows that the theory is correct.

There has been the difference in the subsequent history of these people that one would expect. In Cases 1, 2, and 3 the patients had sufficient vigour for the muscular wall of the heart to hypertrophy until it became able to do its work. In these the circulation resumed its equilibrium and they have had either no further attacks of epistaxis or only very slight ones. In Case 5, where the patient has been suffering from ill-health for years and in whom there is no cardiac hypertrophy, any exposure to cold is apt to bring on epistaxis, but she can always stop it by taking a one-hundredth of a grain nitro-glycerine tabloid. The patient in Case 4 is worth noting as a very anæmic old lady. In her case the epistaxis was certainly not caused by plethora but only by a faulty distribution of the blood. I do not wish in the least to assert that all cases of epistaxis in the aged are due to the same cause, but only that there is a well-marked group in which profuse epistaxis is an outward and visible sign of sudden temporary loss of power of the heart. In these cases the hæmorrhage is purely passive and it is exactly analogous to the attacks of hæmorrhage in elderly persons which may come from the lungs in cases of a suddenly rising mitral disease, from the stomach if the heart should fail in cases of cirrhosis of the liver, or from the uterus (as menorrhagia) in cases of mitral regurgitation, &c.

Here the questions naturally arise, Why should only some people with this condition of circulation suffer from epistaxis? Why should the block not show itself rather by pulmonary symptoms than by hæmorrhage from the nose? The only answer is that in some cases pulmonary symptoms do occur in apparently similar conditions. Of course the hæmorrhage occurs from the relatively weakest point and it is probable that the venous sinuses in the noses of these sufferers from epistaxis have very thin walls. Another possibility is that the question, whether lung trouble arises or not under these conditions, depends on the relative strength of the walls of the two ventricles. If the weakened left ventricle be still able to pump out of the lungs as much blood as the right ventricle can pump into them, naturally no pulmonary congestion can exist, and the block in the circulation must be behind the heart. If, on the other hand, the left ventricle be relatively weaker than the right the lungs become congested with blood, and according to the degree of congestion we may get hæmoptysis, or more or less œdema of lungs, or the condition where the physical signs are those of a bronchitis mainly basic but in which the expectoration is a tenacious glairy fluid, which may be transparent or may be coloured with blood, its hue varying from a light pink or, in the graver cases, to prune-juice. Or we may get symptoms of asthma of varying intensity and this form of asthma is curable also by nitro-glycerine.

The most scientific and satisfactory treatment of these cases of epistaxis, and by analogy of the other forms of passive venous hæmorrhage, is to empty the over-filled veins. As long as they are enormously distended with blood the hæmorrhage must continue unless direct mechanical means are used, and if one nostril be plugged the epistaxis is apt to start from the other. If, on the contrary, we can relax the walls of the arteries and help the enfeebled heart to do its work, it will soon empty the over-filled veins. But, as a rule, this cannot be done by giving heart tonics at first. The heart has been doing its utmost, it has only failed because it has been overworked, and giving a tonic is like spurring a jaded horse. We must bear in mind that in this class of cases the immediate treatment must be directed to the capillaries and small arteries, as the real cause of the epistaxis lies there, not in the nose. Nitro-glycerine is quite effective, nitrite of amyl might be more so, but one of the more quickly acting nitrites should be used at first; afterwards one of the more slowly acting as erythrol tetranitrite or possibly even thyroid tabloids might do as well. When the capillaries and arterioles are dilated and pervious then comes the time for strychnine or strophanthus. Of course each patient must be considered individually, and there are other ways of keeping down excessive blood-pressure and strengthening a weak heart. In spite of everything plugging may have to be resorted to in some cases, but in most of them the hæmorrhage can be stopped without resorting to this procedure, which is always most uncomfortable to the patient and sometimes even dangerous.

Finally, by recognising profuse epistaxis as a symptom of a sudden though mostly temporary heart-failure, there is no danger of commencing valvular disease being overlooked and the patient being considered as one who only requires a little surgical treatment. In some cases it is possible that the alteration in the circulation causing the epistaxis may also cause cerebral symptoms, but here, again, the cerebral symptoms are mostly not the cause or the result of the epistaxis but only the result of the circulatory conditions leading to the epistaxis.

Brechin-place, S.W.

A CASE OF RECOVERY AFTER OPERATION FOR DIFFUSE PERITONITIS FROM PERFORATION OF THE APPENDIX.[1]

By CHARLES A. MORTON, F.R.C.S. ENG.,
PROFESSOR OF SURGERY IN UNIVERSITY COLLEGE, BRISTOL; SURGEON TO THE BRISTOL GENERAL HOSPITAL AND TO THE BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.

I THINK it would be well at once to define the nature of the case which I now report, and have called one of "diffuse peritonitis." Many such cases have been recorded as recoveries from general peritonitis, but when the records are read it is obvious that, although the infection was widespread, there was no evidence at the operation that the disease involved the whole, or in some cases even the greater part, of the peritoneal cavity. These cases are examples of an infection of considerable extent, an infection far beyond the limits of a localised collection of pus around the appendix, but they are not cases of general infection. To this class my own case, I believe, belongs. I know from what we found at the operation that the infection was widespread, but I think that it is doubtful if it involved the upper part of the peritoneal cavity. The recovery of the patient is, I think, evidence that it probably did not do so. When the great disappointment which is often experienced after trying to save a case of widespread infection of the peritoneal cavity, from perforation or gangrene of the appendix, by operation, is borne in mind, it seems to me worth while recording successful cases, as an encouragement to operate if the opportunity presents itself early enough. This case appears to me to teach a lesson well worth learning, and that is that operation in recurrent cases cannot always safely be postponed until the quiescent period. We cannot feel assured that because a patient has had several attacks of appendicitis the appendix must therefore be safely buried in adhesions and the risk of infection of the surrounding peritoneum almost *nil*. My case is an instance of a most serious infection of the peritoneal cavity in the fourth attack of appendicitis, and I have collected a considerable number of cases of such serious infection in recurrent attacks. The case is also of interest as an illustration of the fact that serious infection of the peritoneum may be present and yet the general condition of the patient be remarkably good. These are just the cases in which an early operation is attended with the best results, for the patient is saved from the gravest possible danger and the operation is performed at a time when his strength is well equal to it.

---

[1] A paper read before the Bristol Medico-Chirurgical Society on March 14th, 1901.

The patient was a man, aged 44 years. He woke up on the morning of Dec. 4th, 1900, with some slight abdominal discomfort, and during a journey of several hours to Bristol in the morning the pain became severe. It was present in the right iliac fossa, but also darted up and down the right side of the abdomen in the line of the right rectus muscle. He did not vomit. He was seen by Dr. Barrett Roue in the afternoon and I saw him with Dr. Roue in the evening. His pain had then been a little relieved by opium. His pulse was only 80 and the temperature was under 100° F. The abdomen was very little if at all distended, but the right side was rigid. It was only tender over a small area just inside the right anterior superior spine. There was a normal amount of abdominal breathing. No swelling was present. There was a history of three previous attacks, one in July, another in August, and a third in October. The diagnosis of appendicitis seemed clear and as there had been three previous attacks I thought we might safely watch the case. On the following day (the 5th) the patient complained of pain in a very unusual position—the left side of the perineum and in the penis, and he said that it started in the right hypochondriac region and spread down the line of the right rectus muscle into these parts. The abdomen was somewhat distended and also slightly rigid and tender on the left side as well as on the right. He had no vomiting, although he was taking a fair amount of milk. Only one-sixth of a grain of morphia had been given hypodermically on the previous evening. On the next morning (the 6th)—that is, 48 hours from the commencement of the attack—there were more abdominal distension and more general tenderness and the abdominal breathing had disappeared. Although the pulse was only 80 and the temperature was below 100° and the patient showed no sign of prostration I decided to operate as the increasing general distension and tenderness seemed to be unsatisfactory signs. Not that general distension alone is a certain sign of widespread peritoneal infection in these cases, for in some of my cases of appendicitis in which it has been marked the disease was strictly limited to the appendix.

I opened the abdomen over the region of the appendix and found what I have observed in other cases of intraperitoneal suppuration, very marked œdema of the connective tissue just beneath the external oblique aponeurosis. On dividing the peritoneum a very red and distended cæcum presented and from beneath this I evacuated a small collection of pus which was only retained there by the pressure of surrounding distended coils of intestine. I next passed a sponge on a holder down into the true pelvis, and on withdrawing it a large quantity of thick pus escaped from the pelvis, which was then thoroughly sponged out. All the coils of intestine which presented in the wound were very red and had exudation of lymph on them. The appendix was perforated close to its attachment to the cæcum, and I removed it. It was almost free from adhesions. A very long glass drainage-tube was placed in the pelvis, another in the right loin, and a small one against the stump of the appendix, and gauze wicks were placed in the tubes. There was no shock from the operation, but I must say that the condition of the peritoneum was so bad that I did not expect the patient to recover. In spite of my fears, however, he began to improve from the time of the operation; flatus was passed and the abdominal distension slowly subsided. He was fed only by the bowel for the first 48 hours, and occasionally turpentine enemata were given. Only serum drained away from the tubes, but this came in considerable quantity at first, though the quantity soon diminished, and a few days after the operation the glass tubes were changed for rubber ones. He never had very much pain after the operation and had no vomiting at any time during his illness. Ten days after the operation the abdomen was soft and of natural shape and he was taking fish and other kinds of solid food. All the rubber tubes were removed five days after the operation, but on the following day for the first time a little pus was discharged from the drainage-tube track leading to the stump of the appendix. As the discharge continued a very small drainage-tube was inserted into the track and a slight discharge persisted for a fortnight and then the sinus healed. The patient made a satisfactory convalescence and has since remained quite well.

I think the record of this case will show how dangerous a recurrent case of appendicitis may be, and that severe peritoneal infection may be present with a pulse hardly raised above normal, a very slight rise of temperature, and a complete absence of vomiting and of those signs of general prostration which are so frequently associated with septic peritonitis. I hope that by adding one more to the list of recorded successful cases of operation I may give some further encouragement to operate for septic peritonitis if the patient is seen early enough.

Bristol.

THE OPEN-AIR TREATMENT OF PHTHISIS AT HOME:

A SHORT HISTORY OF A CASE.

By F. WHINFIELD BARTLETT, M.R.C.S. ENG.,
L.R.C.P. LOND.

THE patient, aged 38 years, the wife of a baker residing on his business premises in the country, two miles from a small town, had, before coming under my care, been treated by my predecessor for phthisis. During the years 1897, 1898, and 1899, she consulted me on several occasions for attacks of pleurisy on the left side. During the winter months she suffered much from cough and shortness of breath. There were well-marked physical signs of consolidation in the upper lobe of the left lung, with a cavity at the apex. In the intervals between the pleuritic attacks she felt well enough to perform her ordinary household duties and continued to do so until the onset of more acute symptoms in January, 1900. There was no history of tuberculous disease on her father's or her mother's side, but her only child, a boy, aged nine years, had suffered from tuberculous disease of the knee-joint, for which I had amputated through the thigh in September, 1899. He has never developed any pulmonary symptoms.

On Jan. 8th, 1900, I was called to the patient's house and found her in bed. She had been shivering, the pulse and respiration were both very rapid, the temperature was 102° F., and there were much cough and expectoration. These symptoms continued to be very acute for a fortnight, then they gradually remitted until in the first week in February her condition was as follows. The body was considerably wasted (her weight was 89 lb.), her evening temperature averaged 100 6°; there was considerable dyspnœa; respirations were from 30 to 40 per minute; there were severe night-sweats and much cough with expectoration of large quantities of viscid mucus (this had declined from four or five ounces to about two ounces per diem), sometimes muco-purulent and always containing "nummuli" and sometimes streaked with blood. There was much bodily weakness with anorexia and great restlessness and nervous irritability. With regard to physical signs there were marked flattening and deficiency of respiratory movement on the left side; the left clavicular note was quite dull; the percussion note was quite dull at the apex and was markedly impaired over the whole of the remainder of the left lung, front and back; the breath-sounds were cavernous at the left apex with very distinct bronchophony and pectoriloquy and much coarse metallic râle. The breathing became bronchial in the axillary region and faded to a weak respiratory murmur over the base, where also pleuritic friction sounds were to be heard. There were also signs of commencing disease of the right apex. A specimen of the sputum was sent to the Clinical Research Association for examination, and the report was that "tubercle bacilli are present in small numbers."

As the prospect of the patient's recovery seemed to be under ordinary conditions very slight I advised that she should undergo the open-air treatment. To this she and her friends willingly consented, but as residence in a sanatorium was out of the question, I persuaded them, being influenced by the account of a very successful case reported by Mr. T. A. Somerville and Dr. Eugene S. Yonge,[1] to carry out the treatment at home. For this purpose a shepherd's van which happened to be on the premises was moved into the garden at the rear of the house. The side of the van facing south was removed and rebuilt to the height of three feet six inches from the floor, leaving a space of four feet between it and the roof the whole length of the van, provided with shutters for use in stormy weather. A small stove with a flue was placed in the van for the sake of comfort, and the patient then took up her residence there. The season was winter (she commenced the treatment on Feb. 7th) but she spent the whole of the time between breakfast and sunset lying on a couch or sometimes sitting in an easy-chair in this situation with the exception of half an hour for dinner in the middle of the day, when she went in-doors. Whilst in-doors—in her sitting-room in the evening and in her bedroom at night—the window was always kept wide open, a screen being placed between the window and the bed to prevent any draught being felt. Although the other occupants of the house complained of the cold and discomfort she herself felt no inconvenience even in the coldest weather. Occasionally, in very stormy weather she would remain in-doors for a day or two, wind and a damp atmosphere apparently causing laryngeal catarrh, whilst a cold dry air had no such effect. When the weather was favourable she took short walks. She was enjoined to take a liberal diet, but her distaste for food was such that she could never take much meat or solid food of any sort. Her usual daily menu was three pints of milk, one egg, a little bacon (at breakfast), a few thin slices of bread-and-butter, occasionally a little meat and vegetable, and, in the winter months, a plate of oatmeal porridge with milk for supper. During the first three or four months of treatment she took a capsule containing one minim of creasote three times a day. She also used inhalations of terebene several times daily, and frequently took an anodyne cough mixture. I visited the patient twice a week during the first few months of treatment, and afterwards at gradually lengthening intervals. She kept a daily record of her morning and evening temperature and a weekly record of her weight. Within a week or two of her taking up her out-of-door residence her condition began to improve—the cough diminished in frequency and the sputum in amount, the evening temperature fell to below 100°, and she commenced to gain in weight. In the first seven weeks she gained 7 lb.; then her weight remained practically stationary for two months. During this period the evening temperature averaged about one degree above normal. In April she had a slight relapse; the temperature rose to 101° (for a few days it was 102°), there were considerable prostration and nervous irritability, and she was much troubled with laryngeal hoarseness and cough, so that I deemed it advisable that she should remain indoors and in bed. Under the influence of rest and warm inhalations of compound tincture of benzoin the symptoms subsided and in a week or two she was able to resume her out-of-door life. After this, with the exception of a second slight relapse in May, the improvement was gradual but continuous.

The record shows that the fall in temperature and the gain in body-weight proceeded *pari passu*. By the beginning of August the evening temperature had fallen to normal and has never once since risen above it. Her weight at that time had risen to 102 lb.; by the end of the year it had increased to 114 lb., at which it remained at the beginning of February, 1901. The improvement in her condition at this time, 12 months after the commencement of the treatment, is very marked. In place of being a fragile, cachectic woman with sunken cheeks and a hectic flush she is now plump and well-conditioned, with a healthy complexion; in fact, she complains of being uncomfortably stout. Cough and expectoration have almost disappeared—she coughs a few times in the course of the day and occasionally expectorates a little mucus which is never blood-stained. She has had no night-sweats for many months, no hoarseness, and no pleuritic pain. As to the physical signs, there are flattening and deficiency of expansion of the chest-wall on the left side, the percussion note is dull at the apex and impaired at the base, whilst there are still tubular breathing, bronchophony, and pectoriloquy at the apex, and the breath-sounds are weak at the base. The loud metallic râle which was so audible at the apex has disappeared and there is now only a faint crepitus at the extreme end of inspiration, whilst the crepitation at the base is much less in amount and pleuritic friction is absent. The signs of commencing disease of the right apex have disappeared. There is still considerable dyspnœa on exertion, but otherwise she feels quite well. The Clinical Research Association reported of a specimen of sputum examined on Dec. 24th, 1900, "No tubercle bacilli were discovered."

It remains to be added that beyond the fact of its being situated in the country the patient's residence presented no special advantages for the carrying out of the treatment. It is situated in the low-lying valley of a river where mist and fog are very prevalent. On the other hand, the patient and her friends are people of intelligence; they entered into the treatment with zest and carried it out with zeal and thoroughness, and to this, no doubt, the satisfactory result is largely attributable.

Romsey, Hants.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF CONCURRENT ERYTHEMA MULTIFORME AND ERYTHEMA NODOSUM.

By Edward McCulloch, M.B., Ch.B. Edin.

Although modern dermatological literature favours the view that erythema nodosum is but one of the many manifestations of erythema exudativum multiforme, sufficient difference of opinion perhaps remains to warrant the consideration of those rare cases where definite erythema nodosum co-exists in the same individual with other undoubted manifestations of erythema multiforme. In the following case the character of the lesions was unquestionable, and the family history has also an interesting bearing on the etiology of the disease.

The patient was a boy, 15 years of age, who came to me on Dec. 31st, 1900, complaining of "lumps on his legs and spots on his face." He had been exposed to rain and had got a wetting a few days previously. Examination of the shins revealed a typical eruption of erythema nodosum, about five nodes being visible on either shin. Each node was of about the size of a small walnut. Their colour was a dusky red and they were tender on pressure. Their margins were ill-defined and they were unassociated with itching or pain. On the middle of the extensor aspect of the left thigh there was one similar node. On the face there were a few small groups of reddish papules; some coalesced to form small raised patches, situated on the infra-orbital regions and just external to both outer canthi. A few papules were also visible on the alæ nasi and adjacent parts of the cheeks. The patient's temperature was 100·5° F. Little general discomfort was felt. I sent him home with directions to go to bed, and ordered 15-grain doses of sodium salicylate every four hours. Next morning the facial eruption had increased in extent, and fresh patches had appeared behind both ears and on the bridge of the nose. Coalescence of some of the original papules had taken place. The papules were moderately hard to the touch and they paled on pressure. They varied in size from a pin's head to a split pea. During the next few days the rash continued to extend, and in a couple of days after the first visit opalescence appeared in some of the papules and others displayed slight vesication, the vesicles being minute and containing a puriform secretion. A certain degree of general swelling was present for a day or two over the area of the eruption, but it rapidly subsided. Papules also appeared on the backs of the hands and fingers and fresh nodes appeared on the shins from day to day for the first week, all gradually passing through the usual succession of chromatic changes. The temperature remained slightly above 100° for six days, with the exception of Jan. 3rd, 1901, when it sank to 99 5°. On the eighth day it was 99 8° and it did not rise above this subsequently. The eruption gradually faded from both face and legs, leaving slight pigmentation behind. This pigmentation was visible on the face as late as the 20th—i.e., for about three weeks—but had disappeared by Jan. 25th.

---

[1] The Lancet, Jan. 20th, 1900, p. 162.

From the above history it will be evident that the nature of the lesions was unmistakeable. The slight rise of temperature, the local appearances, their symmetrical arrangement and their distribution, were all characteristic of erythema multiforme, while the condition of the shins was absolutely typical of erythema nodosum. The case, to my mind, is a very definite demonstration of the identity of erythema nodosum with erythema multiforme. The family history was remarkable. The patient's mother had similar "lumps on the legs" before marriage; his maternal grandmother had had rheumatic fever; an elder sister died at the age of 16 years from rheumatic endocarditis with multiple joint affections; a younger sister was under my care last year with rheumatic fever, and had endocarditis and subsequent signs of mitral stenosis; another sister had had frequent attacks of acute tonsillitis (from which the patient himself has often suffered); and a maternal uncle and three of his children had had rheumatic fever. In contrast to this the patient's father is healthy and has no rheumatic personal or family history. Thus additional support is given, if it be needed, to the view that erythema multiforme is but one of the expressions of rheumatism.

Torpoint, Devonport.

NOTE ON THE TREATMENT OF OTORRHŒA.

By DAVID WILLIAM AITKEN, M.B., C.M. EDIN.

As the method about to be described has proved successful in cases where the alternative is antral perforation it seems well to call the attention of the profession to it Although it is quite prompt in its effects upon acute otorrhœa its benefits are greatest in old-standing cases where the mastoid has become infected. Such cases have lasted for years; there is an abominable discharge, probably with polypoid growths, and if the more threatening head symptoms are not present there are the impaired health, the atonic dyspepsia, the anæmia, and the loss of flesh to denote the dire effects upon the constitution which follow absorption.

The appliances required are a probe, some antiseptic lotion, and some absorbent cotton. The best probe for the purpose which I have seen is that supplied by Messrs. Hockin and Wilson. It has at the end two spiral teeth which, while they hold the wadding firmly, permit of its easy removal by rotating the stem counter clock-wise. The first step is to pour into the ear some of the lotion. Then take as large a plug of wadding as is deemed sufficient when screwed upon the probe to easily fit the meatus. It is now possible to make the probe and ear canal a suction syringe The plug of wadding which forms the piston is gently pushed in and then withdrawn. If it is found to be either too large or too small another can be at once substituted which acts both easily and also fits close enough to force some of the fluid before it. This fluid reaches both the attic and also the mastoid recesses. At any rate, on the first withdrawal sufficient vacuum is produced to allow the lotion to enter the accessory cavities. *It will surprise* anyone who has not carried out this procedure to note how much discharge and débris are brought to the surface even after syringing and swabbing have been efficiently performed. After several repetitions of the manœuvre, the head each time being turned to the opposite side to permit of emptying the meatus, the lotion will well up clean. Now one can get any medicament to the clean surfaces. Begin with chinosol, iodoform, or amyloform in alcohol which, in my experience, is best in the absolute state. It is practically painless in almost all cases and in the exceptions the smarting is but momentary. Its advantages are: (1) it acts promptly upon the polypoid growths; (2) it is a most satisfactory antiseptic; and (3) as it evaporates it leaves a dry surface. This is most important. Many of the cases which progress so unsatisfactorily are those of patients who get a "powder to put in water to syringe the ear with." While the ear is never clean it is kept constantly in a sodden state. When the solution has been poured into the ear the process with the "piston-rod" is repeated several times. Thus the fluid is forced into all the recesses. That this is so is seen by the prompt improvement both in the local condition and also in the constitutional state. Of course, discretion is used as to the nature of the drug selected in the progress of the cure, according to the requirements—stimulant, astringent, &c.—of the case. It is unnecessary to select examples. Suffice it to say that many cases have been treated and that in some the patients have probably been saved from the somewhat serious operation of trephining the mastoid.

It is my belief that this plan, if properly carried out, would greatly diminish the number of antral perforations. In fact, it is as an alternative to that procedure that my device has been matured.

Packington-street, N.

BARIUM WATER IN WEAKNESS OF THE HEART.

By W. BLACK JONES, M.D., B.S. LOND., D.P.H.,

PHYSICIAN TO THE LLANGAMMARCH WELLS SPA.

THE following case, which illustrates others of a similar nature treated at the Llangammarch Wells Spa, may be found to be of interest.

A man, aged 53 years, consulted me for weakness of the heart. He had had influenza seven years previously and since then had suffered from dyspnœa on exertion. He had been losing flesh of late. He was a very thin man, weighing only seven stones. The apex beat of the heart was in the nipple line and the cardiac dulness was increased to a corresponding extent. At the apex a soft systolic murmur was heard which became louder as the right base was approached; over the pulmonary area the second sound was accentuated. The pulse was thin and wiry and the frequency varied from 90 to 100 per minute. Nothing abnormal was observed in the other organs; the urine was unaffected. The patient was advised to drink the Llangammarch barium water, to have a course of barium baths, and to take outdoor exercise in moderation He soon began to improve and after three weeks' treatment he left, feeling considerably better. After an absence of six weeks he reported that he had made greater progress; the pulse was slower, he had practically lost the dyspnœa, and he was able to walk up hill with comparative ease. He was also gaining in weight and was feeling better than he had for years.

Similar to the above case are many in which the heart has been damaged after attacks of influenza. They all receive considerable benefit from the treatment at Llangammarch and often gain considerably in strength after their return home.

Llangammarch Wells, Breconshire.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A quarterly court of the directors of this society was held on April 10th, Mr. Christopher Heath, the President, being in the chair. Ten new members were elected and the deaths of three were reported. The death of a widow was announced. Fresh applications for grants were read from two widows and three orphans and grants amounting to £96 per annum were made and a grant of £25 for the self maintenance of an orphan was given. Applications for continuation of grants were read from 50 widows, 14 orphans and six on the Copeland Fund, and it was resolved that £1218 be given at the July court The following were recommended for election at the annual general meeting to fill vacancies in the list of officers for 1901-2—viz: Dr. Blandford as treasurer, and Mr Sleeman, Mr. Elwin, Sir Hermann Weber, Mr. Stowers, Dr Nix, and Dr. Palmer as directors It was decided to hold the annual general meeting on May 22nd at 5 P.M.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

METROPOLITAN HOSPITAL.

TWO CASES OF CONTRACTURE OF THE FLEXORS OF THE FOREARM TREATED BY TENDON LENGTHENING.

(Under the care of Mr. HAROLD L. BARNARD.)

THE treatment of the paralysis which follows the application of splints to a limb was formerly very unsatisfactory, but the operation of tendon-lengthening has proved so very successful that it will certainly be extensively employed. The condition is by no means rare. The mode of production of the paralysis probably varies; some paralyses are due to injury to the muscles, perhaps merely from interference with their blood-supply, while others are certainly produced by the pressure on the nerves of the limb, a traumatic neuritis resulting.

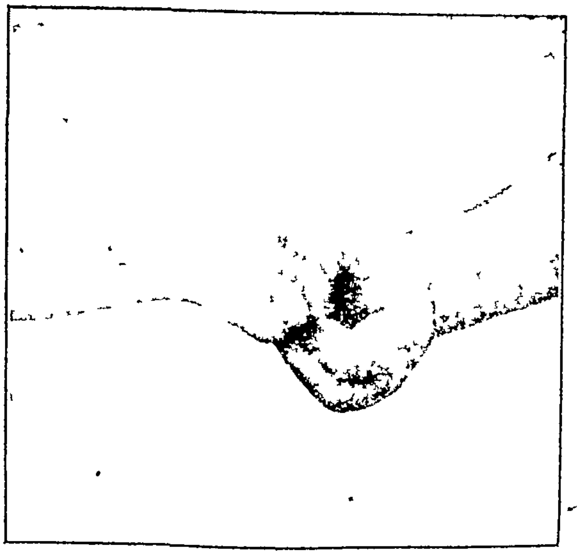
CASE 1.—A little girl, aged three years, was taken to the out-patient department at the Metropolitan Hospital on May 2nd, 1900. On March 16th (six weeks before) she had broken both bones of her right forearm about the middle, and for this anterior and posterior splints were applied and the arm was supported in a sling. She was seen on the next day and complained of no pain. When the splints were readjusted at the end of a week a pressure-sore was found extending for about three inches from the middle of the front of the forearm to the wrist, whilst a smaller one was found on the back of the forearm in its lower part and a still smaller one upon the thenar eminence. The fracture united well and the sores rapidly skinned over and healed. No note was taken at the time whether the child moved her fingers or not. About the middle of April—that is to say, one month after the accident—the fingers and the top joint of the thumb began slowly to flex, and this flexion steadily progressed in spite of massage, the free use of liniments, and the restraint of a splint. It was for this progressive flexion that she was taken to Mr. Barnard six weeks after the accident. The pressure-sores were nearly healed. The position of the hand was that of *main en griffe*. When the wrist was extended the fingers were extended at the metacarpo-phalangeal and flexed completely at the two interphalangeal joints. The last phalanx of the thumb was fully flexed. When the wrist was completely flexed the fingers became extended. There was no definite area of anæsthesia, but voluntary movement was practically lost in the hand and wrist. The operative treatment of the case was delayed for the sound healing of the sores and by a chronic whitlow which appeared on June 27th upon the tip of the right index finger.

On Sept. 10th Mr. Barnard operated, six months after the injury, employing the method instituted by Mr. H. Littlewood and Mr. H. W. Page. An incision was made through the skin from a little below the elbow to just above the wrist down the middle of the forearm. The skin was reflected on either side and the tendons, which were no thicker than stout twine, were split for about one and a half inches and the halves were severed above and below on opposite sides. The fingers were then extended and the two halves of the divided tendons were allowed to slide on one another as much as was necessary and were then united with one or two sutures of No. 1 silk. In this way four tendons of the flexor sublimis digitorum, the flexor longus pollicis tendon, and, strange as it may sound, six strands of the flexor profundus tendons were divided, lengthened, and sutured. The latter tendons were so blended and adherent in the depths of the wrist that there seemed no end to the tiny strips which were separated from the mass and divided until all the terminal phalanges could be extended. Confusion was prevented among the number of tendon ends by employing guide sutures. The sublimis tendons as they were divided were transfixed by a guide suture and drawn on one side. The profundus and flexor longus pollicis tendons were then treated in the same manner. The deepest tendons were sutured first and afterwards the superficial ones. No tourniquet was employed and only one or two vessels required clamping and hardly any ligature, although the radial, ulna, and anterior interosseous vessels were exposed in the wound. The whole operation was strangely free from hæmorrhage and oozing. The muscles exposed were pale, firm, fibrous, and dry and very unlike the normal succulent vascular muscles of children. The operation lasted for two hours. The arm was put up with the fingers fully extended on a posterior splint carefully padded. The stitches were out in a week and the wound healed by first intention.

The after-treatment consisted of massage and passive movement every day from a fortnight after the operation. The child wore a back-splint at night as there were signs of further contraction occurring. During the day the sound arm was tied up inside her clothes and she was supplied with plenty of toys to encourage her to use her injured arm.

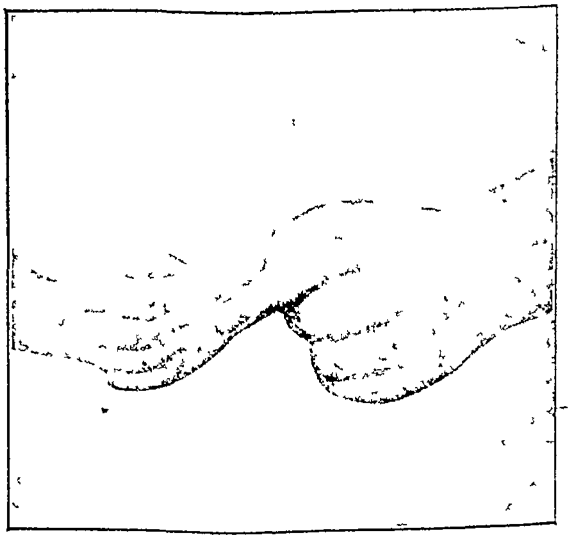
CASE 2.—A little boy, aged four years, was taken to the out-patient department at the Metropolitan Hospital on May 12th, 1900, suffering from contracture of the left forearm. On March 15th the upper part of his left forearm was crushed, producing extensive swelling from effusion of blood. Fracture was excluded by x rays. The arm was placed upon an external angular splint and lightly bandaged, as it was excessively painful. About five weeks later contraction of

FIG. 1.



Contraction of the flexor tendons. When the wrist is extended the fingers become flexed at the inter-phalangeal joints. The top joint of the thumb is also flexed.

FIG. 2



Contraction of the flexor tendons When the wrist is fully flexed the fingers become extended.

all the long flexor tendons commenced, and when he was seen by Mr. Barnard on May 12th, eight weeks after the accident, his left hand was in the typical position of *main en griffe*. The accompanying illustrations show the sign on which so much stress has been laid by Mr. Littlewood, that when the wrist is flexed the fingers extend and that when the wrist is extended the two inter-phalangeal joints of the fingers and the terminal joint of the thumb are fully flexed. The forearm was, moreover, fully pronated and fixed. There was no definite anæsthesia of the hand, although the skin of the digits was smooth and glossy and the whole hand much colder than its fellow The most patient and persistent massage, passive movements, and electrical treatment produced not only no improvement but the contracture steadily progressed.

On May 30th, about 11 weeks after the injury, Mr. Barnard operated by the method already described The tendons of the flexor sublimis profundus and flexor longus pollicis were split, divided, lengthened, and sutured in a manner identical with that described in the previous case The profundus tendons were not so adherent and matted as in Case 1, but the absence of hæmorrhage and the dryness of the wound were nearly as marked This was the first time that Mr. Barnard had performed this operation, and when after one and a half hours of tedious work on tiny tendons Mr. Barnard saw the mass of ragged ends and knotted silk in the wound the prognosis appeared to him to be so hopeless that he did not attempt to deal with the pronators of the arm

The wound healed by first intention, and in a very short time it was clear that the tendons had united past expectation. The common profundus tendon to the index and second finger did not act for some weeks, and this was explained by the fact that it was not sufficiently lengthened at the operation and had to be united end to end. The same tactics as have been described in Case 1 were adopted to prevent recontracture and to compel the child to use the lame hand. The progress of the case was satisfactory. A chronic painless whitlow appeared on the index finger of this case as in the other. Improvement was so marked after four months that the mother wished something to be done for the loss of rotation in the forearm

On Oct. 20th Mr. Barnard again operated. An incision was made partly through the upper end of the old scar but extending nearly to the elbow. The insertion of the pronator radii teres was found and the radial artery and nerve were separated from it The muscle was then split and divided on opposite sides, as the flexor tendons had been. An attempt was then made to supinate the forearm but this entirely failed An incision down to the bone through the periosteum was then made over the lower one and a half inches of the ulna between the flexor and extensor carpi ulnaris and with a periosteal elevator the attachment of the pronator quadratus was separated from the ulna The forearm was then readily supinated by the exercise of a little force The pronator radii teres was sutured in the upper wound and both incisions were closed The forearm was fixed fully supinated upon a splint

The after-treatment consisted of a splint at night and passive movement and massage every day. Pronation partially recurred as the masseuse when performing passive pronation and supination did not fix the ulna by flexing the elbow, and rotated the forearm from the hand and not from the end of the radius and ulna; however, rotation is fair, whereas previously to the second operation it was absent

Remarks by Mr. BARNARD —The present condition of both these cases is almost identical. The fingers and thumb are straight and the short muscles of the hand can act freely upon the digits, with the exception of the short muscles of the thumb in Case 1, which are still hard, contracted, and nearly powerless All the flexor tendons have apparently united so that partial flexion can be performed and the children can grasp a stick or pick up a pin, but neither child can make a fist The range of movement in the cicatricial muscles is only sufficient to half-flex the fingers Both cases, however, are still steadily improving, and I hope the result may be much better. In Mr. Page's case improvement was not well marked until 10 months after operation, and five and eight months only have elapsed since the operation on Case 1 and Case 2 respectively. Both cases were shown at the Medical Society of London on Feb. 11th, 1901, and a very favourable opinion was expressed as to the results of this method of operation I should like to record my indebtedness to Mr. J. K. S. Fleming and Mr F. Sanger, my house surgeons, not only for their assistance at these tedious operations, but for the care which they showed in the after treatment of the cases.

Contracture in muscles arises either from a primary lesion of the muscles when it is said to be myogenic or it is secondary to some lesion of the nervous system. The two cases of flexor contraction recorded here were myogenic in origin Case 1 was undoubtedly a case of Volkmann's ischæmic contraction Case 2 probably was the result of a severe contusion of the muscles and not of a long period of anæmia.

The circumstances under which a myogenic contracture may occur appear to be as follows. 1. When splints are applied too tightly to the forearm or elbow for fractures of the lower end of the humerus or the bones of the forearm. Frequently more or less of the skin sloughs, but this complication does not necessarily occur. 2 As the result of the application of Esmarch's elastic bandage or cord for too long a period to a limb, either during a bloodless operation or for auto-transfusion in collapsed cases. R Volkmann,[1] however, confesses that he has never seen an instance of the latter. It would appear that contracture may follow the application of an Esmarch's cord for little more than one hour. 3 When the main artery of the limb has been ligated, ruptured, or contused 4 Long continued and severe cold may produce a similar result, as has been shown by the experiments of Kraske[2] The contractures which result under the above circumstances may all be considered ischæmic in origin The last cause which will be considered is hardly ischæmic in nature, although the resulting contracture is strictly myogenic 5 After rupture or severe contusions of the flexor muscles in very young children. Thus König records a case in which the flexors of the forearm were ruptured in delivering a child and contracture followed. These cases are similar to contracture of the sterno mastoid muscle after its rupture during delivery in breech presentation. The second case reported here would appear to belong to this class

We must clearly distinguish these cases of contracture which are myogenic in origin from those which are primarily nervous Thus when one group of muscles are paralysed in the leg in acute anterior poliomyelitis contraction occurs in the healthy opponents and deformity results, or again, when ulnar paralysis occurs and the interossei muscles are powerless to resist certain actions of the long flexors of the forearm, these normal muscles contract and produce the typical claw hand. There is also the great group of spastic contractures which follow lesions in the brain or upper neuron (Little's disease) In this case all the muscles tend to pass into a contracted condition, but the stronger groups prevail. In these classes of deformity the cause is undoubtedly a primary nerve lesion In the group of cases described first by Volkmann and in that which is placed in the fifth division of causes above we must regard the contracture as a result of a direct injury to the muscle

The pathology of the cases arising from laceration or contusion of a muscle can easily be disposed of. The delicate vascular immature muscle of a young child is lacerated or pulped by a severe injury The delicate connective tissue between the bundles and fibres cannot prevent the extravasation of blood at the time or the reparative inflammatory process which follows from spreading widely throughout the muscle The immature muscle fibre is probably also more susceptible to injury and atrophies The muscle is more or less replaced by connective tissue and this undergoes cicatricial contraction Hence the contracture so common in congenital wry neck, in the case already referred to, reported by Konig, and in Case 2 recorded above Mr. Littlewood thinks that this explanation will cover all cases and that the tight bandage and splints are only scapegoats

The pathology of the cases due to the four first causes—viz, tight splints, tourniquets, injuries of arteries, and continuous cold—has led to much discussion. Volkmann and Kraske hold that the muscle-fibre more or less deprived of blood coagulates and passes into a condition of rigor mortis This change is indicated by the immediate paralysis and partial contracture of the hand. The dead muscle fibre is disintegrated and removed and a reparative hyperplasia of the perimysium follows As this develops into fibrous tissue the contracture appears—that is to say, from a month to six weeks after the injury. Volkmann[3] supports his view that the contracture is not nervous in origin, not only by the fact that Kraske actually produced and saw such changes occurring in animals under similar circumstances, but he proceeds to point out that paralysis and contracture appear together in these conditions in less than a month after injury, whereas in conditions where the contracture follows a nervous lesion it is delayed for months or even years. There is no doubt that such a direct destruction of muscle-fibres does occur, but there seems no reason why the delicate axis-cylinder of the nerves or even the end-plates may not be as sensitive to anæmia and pressure as the muscle-fibre itself. This was the view apparently taken by the late Mr. William Anderson.[4]

---

[1] Krankheiten der Bewegungsorgane p 846
[2] Centralblatt für Chirurgie, 1879, No. 12.

These cases often show signs which appear to support a partial nervous origin. In several recorded cases there has been dulled sensation, if not anæsthesia of the hand. In both my cases the fingers became glossy and cold, and chronic painless whitlows developed some weeks after. It is, moreover, curious how few of these cases have complained of the splint being painful, even when they were applied to a fracture of the forearm. Dr. W. S. Hedley recently examined the muscles of the forearm in Case 2, and reported that he obtained the reaction of degeneration, although he admitted examination with the strong currents necessary was very difficult in one so young. If the muscle only had been injured one would have expected those fibres which remained intact to give a normal electrical reaction. Mr. Page also found the reaction of degeneration in his case. Perhaps the destruction of terminal nerve elements (axis-cylinder and end-plate) may prevent a regeneration of the muscle-fibre which might otherwise occur. It is, however, certain, as Volkmann points out, that these cases of ischæmic contracture differ widely from those where the muscle atrophies and much later contracts after a nervous lesion.

The history of the treatment of this very serious deformity shows a steady progress since Volkmann first described it. In the first communication on the subject he says: "We give these sad cases an almost absolutely bad prognosis. The flexor contraction of the fingers and of the wrist-joint obstinately resists all attempts to rectify it by stimulation with electricity, by passive movements, and by forcible extension under chloroform narcosis so that at last one will even be compelled to amputate." And in his later paper (1881) he remarks: "One will break the bones and tear the tendons before the muscles will give." Volkmann, however, gave a better prognosis for the similar condition in the leg, for here tenotomy was applicable and gave very fair results. The next attempt at treatment appears to have been to divide all the flexor tendons in the wrist and straighten the fingers. This was practised by Mr. Edmund Owen and Mr. Davies Colley, and no doubt by many others. The results appear to have been unsatisfactory. The fingers were straight, so that the short muscles of the hand could act upon them, but they were almost useless. In many cases contracture recurred after a time. At a meeting of the Harveian Society in March, 1898, Mr. Raymond Johnson[5] showed a boy, aged eight years, in whom he had resected a piece of the radius and ulna so as to render the tendons relatively longer. The hand was much improved, but the bones had unfortunately not united. Still, Mr. Owen,[6] speaking of his own experience of tenotomy, thought this the better treatment.

The method employed in the two cases reported above appears to have been independently devised by Mr. H. Littlewood[7] and Mr. H. W. Page.[8] The former performed the operation first; the latter was the first to publish it. No further description is necessary of the technique of their method except to say that Mr. Littlewood's method of using guide sutures is most useful, and the necessity for it is emphasised by the fact that Mr. Page was in some doubt if he had sutured the right tendon ends together. I do not think a tourniquet will be found necessary in any of these cases. The operation is more than an hour in duration and it does not seem advisable to submit the damaged limb to a further period of anæmia.[9]

In conclusion, it seems a matter for congratulation that a method has at last been devised by which these cases, which must always be a subject of regret to those responsible for them, can at least be palliated.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Sporothrix Schenckii.—Life-history of the Bacillus Coli Communis.—Tuberculosis of the Female Genital Organs.—Adeno sarcoma of the Kidney.—Cancerous and Calculous Disease of the Pancreas.

A MEETING of this society was held on April 16th, Mr. W. WATSON CHEYNE, the President, being in the chair.

Mr. ALEXANDER FOULERTON made a communication on the Morphology and Pathogenic Action of Sporothrix Schenckii. The organism was a recent addition to the list of pathogenic mould fungi which had been isolated by Schenck and by Hektoen from two very similar cases in which a wound of the finger had been followed by a lymphangitis extending up to the forearm, and was followed by abscesses and ulceration. Orphuls and Moffit had recorded a fatal infection by what was probably the same parasite. In the last case numerous ovoid bodies had been found in the pus of various abscesses scattered over the body; culture tubes inoculated from this pus yielded a growth of a mould fungus. This fungus when injected into a rabbit produced nodules in the lungs and liver which contained the spore-like bodies, and from which a growth of the mould fungus was obtained. Mr. Foulerton showed cultures of the organism and sections of the lesions from infected animals, the specimens being prepared from a culture of the organism which Professor Hektoen had obtained from his case. In inoculated animals only the oval "spore form" was found in the lesions, and there seemed to be good reason for accepting Hektoen's suggestion that the "spore forms" were capable of reproduction as such. Mr. Foulerton thought that appearances seen in cultures on artificial media also suggested a reproduction of spores by direct budding from other spores. It was not quite certain whether the "spore forms" were really spores, or conidia, in the usual sense of the word; they seemed to more closely resemble the "yeast form" of, for instance, oidium albicans. These yeast forms of oidium could be cultivated as such on various media, but when transplanted to other media a development of mycelium occurred. Similarly in the secondary nodule produced by infecting rabbits with oidium albicans only the "yeast form" and no mycelium might be seen. The action of sporothrix Schenckii on lower animals was rather uncertain, but white mice appeared to be the most susceptible. In these animals an inoculation into the subcutaneous tissue was followed by an infection of the tissue in the neighbourhood of the site of inoculation, with sometimes an infection of internal organs as well. In guinea-pigs the susceptibility of individual animals varied considerably. In one case a large nodule in the lung followed an intra-peritoneal injection. In other cases the animal escaped infection. The tissue-changes found in the lesion were represented by collections of round cells having the general appearance of a granuloma. The cells might afterwards undergo caseation or break down into a greyish purulent fluid. The "spore forms" of the parasites were found in the lesions in great numbers, either lying free between the tissue cells or as small masses plugging the capillaries.

Mr W. O. C. PAKES read a paper on the Life-history of the Bacillus Coli Communis. No two bacteriologists were precisely agreed as to what organisms were typical of this bacillus, what were atypical, and what belonged to the para-colon group. He would confine his attention to what most observers regarded as the typical bacillus coli communis, but would describe some of the observations which he had made during the examination of a large number of strains of the bacillus coli communis. Out of a large number of bacilli isolated from water, fæces, &c., he had obtained 52 which were of such a nature that they might be described as quite typical. They were short, round-ended bacilli, were motile, did not form spores or stain by Gram's method; they produced indol in nutrient broth, did not liquefy gelatin, but formed typical colours on plates; they produced a yellowish or brownish growth on potato and coagulated milk generally after about 48 hours. In addition to this they fermented sodium formate, *d* glucose and lactose, reduced neutral red, but did not decompose urea into ammonium carbonate. When these 52 strains were grown upon media containing saccharose or glycerine, however, it was found that there was a distinct difference between them; some fermented both, some only one, and some neither, so that there might be said to be four varieties of typical bacilli from their reaction to these media. In the course of the paper Mr. Pakes said that he could not agree with Dr. W. Hunter when he stated that he looked upon the reduction of neutral red as a specific reaction in the diagnosis of the bacillus coli, for the same reaction was produced by the proteus vulgaris, bacillus prodigiosus, and bacillus Kiliense. He thought that Grimbert, Péré, and other observers were mistaken in making definite statements to the effect that the bacillus coli did not ferment glycerine or that adult-derived bacillus coli could not ferment saccharose, because none of his strain had been obtained from the fæces of children.

---

[3] R. Volkmann, Ischæmic Contraction, Centralblatt für Chirurgie, Dec 24th, 1881

[4] "Fingers and Toes," p. 65. König's case of ruptured flexors at birth is quoted, p. 65

[5] THE LANCET, March 12th, 1898, p. 722.

[6] Ibid.

[7] H. Littlewood, Some Complications following on Injuries About the Elbow-joint and their Treatment, THE LANCET, Feb. 3rd, 1900, p. 290.

[8] Volkmann's Ischæmic Paralysis, THE LANCET, Jan. 13th, 1900, p. 83.

[9] F. C. Wallis and H. L Barnard: The Medical Society of London, Feb. 11th, 1901; and THE LANCET, Feb. 16th, 1901, p. 472.

Dr. G. F. STILL read a paper on Tuberculosis of the Female Genital Organs in Childhood. A specimen of tuberculous caseation in the Fallopian tubes and uterus from a girl, aged four and a half years, was exhibited. The necropsy had shown some adhesions of the liver and spleen to the parietal peritoneum, but no general peritonitis; there were caseous tuberculous foci in the brain and lungs with tuberculous dactylitis and a glandular post-pharyngeal abscess. Reference was made to 12 other similar cases which had come under his (Dr. Still's) observation, and it was pointed out that this condition was not very rare in children. In his experience 9·5 per cent. of tuberculous female children under 12 years of age showed tuberculosis of the genital organs, whilst more than one-third (about 37 per cent.) of the cases of tuberculous peritonitis in female children showed tuberculous lesions in the Fallopian tubes or uterus. Of 13 cases of tuberculosis of the genital organs in children nine showed tuberculosis in the Fallopian tubes, in eight the uterus also was affected, and in only one was the ovary noted as tuberculous. The close association with tuberculous peritonitis was shown by the fact that 10 out of these 13 cases showed more or less generalised tuberculous peritonitis. This association might be interpreted equally well to mean that infection reached the peritoneum through the genital tract or *vice versâ*. The important practical point whether the female genital tract was to be regarded as one of the channels of infection for tuberculosis in childhood was difficult to determine; but if so, tuberculous peritonitis should be commoner in girls than in boys. Dr. Still's statistics showed that there was no marked difference in the incidence on the sexes, whilst other observers had found tuberculous peritonitis decidedly commoner in boys. The greater frequency of tuberculosis in the Fallopian tubes than in the uterus and the absence in all the cases of affection of the cervix and vagina also seemed opposed to this view. Moreover, there were reasons for supposing that the passage of micro-organisms from the vagina to the peritoneum was difficult, whereas in the opposite direction the passage was easy. The facts that when only part of the Fallopian tubes was affected it was the part nearer the peritoneal opening, and that the Fallopian tubes were sometimes affected without lesion of the uterus, whereas in no case was the uterus affected without lesion of the tubes, seemed to point to extension downwards from the peritoneum. On the whole the evidence seemed opposed to primary infection through the genital tract in children, although the possibility of such infection in rare cases could not be denied.—The PRESIDENT remarked that he was inclined to agree with Dr. Still as to the unlikelihood of infection being introduced from without through the genital organs. He did not think it occurred in either male or in female children.—Mr. J. H. TARGETT remarked that he had examined a great many cases of tuberculous salpingitis at all ages and he quite agreed with Dr. Still's conclusions. The extreme rarity of tuberculosis of the cervix was another fact supporting those views. He did not suppose that he (Mr. Targett) had met with 10 instances. Again, he had examined hundreds of curettings and not a dozen of them proved to be tuberculous. Tuberculosis of the tubes was quite common and, in his opinion, this was probably a primary seat of the disease, which sometimes spread thence to the uterus. In the earlier stages of tuberculous salpingitis there was a liability to hæmorrhage; in the later stages he had often found large quantities of cholesterin. Did this mean previous hæmorrhage? If so, these cases had been at one time hæmorrhagic salpingitis and thus tuberculosis might be a cause of hæmorrhagic salpingitis.—Dr. STILL, in reply, said that the cases recorded by him were not the earliest age at which the disease occurred. A case had been recorded by a French observer at the age of six weeks. He could not think that sexual intercourse was a means of infection. The probability was against it. In nine out of 23 adult cases of tuberculous peritonitis the genitals were affected as well.

Dr. MORLEY FLETCHER read a paper on a case of Adeno-Sarcoma of the Kidney. The tumour was removed post mortem from the body of a female child, aged three years, who had been under the care of Mr. Howard Marsh in St. Bartholomew's Hospital. Secondary nodules were found in the liver and lungs. Microscopically the growth resembled a round-celled sarcoma, but contained in addition epithelial structures resembling ducts The tumour did not contain muscle fibres. Sections and photographs of the growth were shown. Dr. Fletcher considered that the growth should be classed as an adeno-sarcoma and that it belonged to the group of congenital renal tumours first fully described by Birsch-Hirschfeld. Comparatively few cases had been fully reported in this country. Cases brought before the Pathological Society by Mr. F. F. Paul and Mr. Edgar Willett were in all probability of the same nature. The view most commonly held was that they were derived from the Wolffian body.

Dr. F. PARKES WEBER read notes of a case of Cancerous and Calculous Disease of the Pancreas in which Suppuration Supervened. The pancreas was replaced by a coarse, tough, fibrous meshwork, the spaces in which were of various sizes and were filled with gritty, calculous material, pus, and what appeared to be the remnants of pancreatic tissue. Microscopically the fibrous framework was found to consist of typical spheroidal-celled carcinoma. There was a fistulous communication leading from one of the suppurating cavities in the pancreas to the pyloric end of the stomach. The stomach was somewhat dilated, but there was no actual stricture of the pylorus. The patient was an extremely cachectic and anæmic man, aged 56 years, whose mother was said to have died from cancer of the stomach. One and a half years ago he began to suffer from abdominal pains. He sometimes vomited but had never had hæmatemesis. The hæmoglobin in his blood was estimated at only 20 per cent. of the normal. On some evenings slight pyrexia was noted. The urine was of low specific gravity and contained a little albumin but no sugar. The gastric contents one hour after a test-breakfast contained lactic acid but no hydrochloric acid. By abdominal palpation no tumour was felt. Death occurred from syncope about a week after admission to hospital. At the necropsy no malignant disease other than that already mentioned was found. No fat necrosis was noticed. The liver, weighing 48 ounces, showed great fatty change as well as a moderate degree of interacinous fibrosis and evidence of the association of recent inflammation with the older connective tissue increase. The cancer of the pancreas seemed to have been primary, and the interest of the case lay in the occurrence of cancer together with calculi of the pancreas, an association which resembled the well-known connexion between cholelithiasis and primary malignant disease of the gall-bladder and bile-ducts.

Dr. R. SALUSBURY TREVOR (introduced by Dr. H. D. Rolleston) exhibited a Small Cyst which be found on the under surface of a diaphragm taken from a patient who had died from cirrhotic ascites.

CLINICAL SOCIETY OF LONDON.

Volvulus of the Ileum with Severe Intestinal Hæmorrhage.—Ureteral Calculus simulating Vesical Calculus.—An Attempt at the Antenatal Treatment of Hæmophilia.—Poisoning by the External Use of Aniline Oil.

A MEETING of this society was held on April 12th, Dr. SIDNEY COUPLAND, Vice-President, being in the chair.

Dr. J. H. BRYANT read a paper on a case of Volvulus of the Ileum with Severe Intestinal Hæmorrhage. The patient, a man, aged 21 years, was admitted into Guy's Hospital on Sept. 18th, 1900, with symptoms resembling intestinal colic which had come on after eating a large quantity of damson tart for supper. His pulse was 80, his temperature was 99° F., and his respirations were 24. The abdomen was not distended, but the lower part was rigid. A hard mass was felt below and to the left of the umbilicus. During the next day the pain continued and in the evening, about 8 P.M., he became very collapsed and passed about a pint of bright red blood and a large mass of undigested damson skins of about the size of a tennis-ball. He was so blanched and collapsed that injections of strychnine and subcutaneous infusion of normal saline solution were ordered. During the night he continued at intervals to pass blood. On the following day he was still collapsed and became restless and delirious. He died on the 20th at 5.30 A.M. Just before death he brought up a large quantity of feculent liquid. Post mortem a volvulus of the ileum was found, 100 centimetres of the gut being involved, the lowest portion of which was 10·5 centimetres above the ileo cæcal valve. The wall of the gut was much thickened and felt œdematous. The direction of the torsion was from left to right. The mesentery appeared to be much lengthened. There was no invagination of any portion of the intestine and no evidence of embolism or of thrombosis of any of the mesenteric vessels. The question of the diagnosis was discussed. After the occurrence of the hæmorrhage and the collapse the patient was thought to be suffering from localised peritonitis and possibly thrombosis or embolism of the mesenteric vessels. During life volvulus was not suspected. Hæmorrhage with any form of intestinal obstruction other than intussusception was of exceptional rarity; he (Dr. Bryant) had only been able to find one recorded case of volvulus of the small intestine in which much blood was passed per anum.—Dr. J. P. Zum Busch remarked that he had met with similar hæmorrhage per anum in association with obstruction of the bowel from hernia and he related an instance in a man, aged 74 years, with a hernia which became irreducible and herniotomy was performed, relieving the constriction. The next day he passed a pint of almost pure blood per anum and on the sixth day after the operation he died suddenly from cardiac failure. Post mortem the constricted intestine appeared to have resumed its normal appearance and there was no ulceration. He also referred to the case of a man, aged 40 years, who was suffering from strangulation of the bowel by a band of adhesions in which blood was similarly passed per anum.—Mr. T. H. Morse (Norwich) urged that it was desirable to operate in these cases for diagnostic purposes, a practice which he had adopted under local anæsthesia from eucaine, ethyl chloride, &c. He thought that in this instance an exploratory operation would have been justifiable.—Mr. Charters Symonds remarked that such cases were very rare; he had not seen a case since 1882. That patient was a boy, aged 18 years, who was seized with violent abdominal pain, but when admitted the symptoms were not urgent. As he did not recover the abdomen was opened and coils of small intestine were found matted together and formed a volvulus, and the patient died soon after. He was not unfamiliar with hæmorrhage per anum after hernial constriction and of this he had met with several examples; in one the hæmorrhage was severe enough to determine collapse. This pointed to the unwisdom of giving enemata in these cases. He agreed that such cases might be dealt with under local anæsthesia.—Dr. A. E. T. Longhurst asked why the patient was not operated upon when admitted.—Dr. Sidney Coupland observed that the reason of hæmorrhage in intussusception was because the strangulation of the bowel was incomplete. In Dr. Bryant's case he presumed that the obstruction was complete and the symptoms might have suggested the possibility of intussusception having preceded the volvulus.—Dr. Norman Dalton said they ought to distinguish between strangulation of the vessels and strangulation of the bowel, and he referred to a case of kinking of the splenic flexure which ended in perforation, the kink being caused by adhesions.—Dr. Bryant, in reply, said that in his case the blood-vessels had been completely obstructed, but the bowel itself was only incompletely obstructed. He had not operated on admission because this did not seem called for. He insisted on the difficulties which the diagnosis presented in such cases and the rarity of volvulus attended by hæmorrhage.

Mr. Francis J. Steward read a paper on a case of Ureteral Calculus Simulating Vesical Calculus. The patient, a man, aged 24 years, had suffered for three years from attacks of painful micturition accompanied by hæmaturia. These attacks were slight at first but later became more severe. A week before admission into Guy's Hospital pain became much more severe and the urine became scarlet in colour and continued so until admission. On admission, on August 9th, 1900, there was a considerable amount of blood and a little pus in the urine. There was severe pain in the perineum and at the end of the penis both during and apart from micturition. There were no pain, no tenderness, and no fulness over either kidney or ureter. The bladder was sounded with a negative result and two radiographs were taken, but neither showed anything abnormal. The case was thought to be one of encysted vesical calculus. On August 24th the bladder having been inflated with air was opened above the pubes and a stone was felt impacted in the right ureter two inches from the vesical orifice. The stone could not be moved down the ureter, so the wound was closed. At a second operation on Sept. 2nd an incision was made in the lower part of the right linea semilunaris and the abdomen was opened. The stone was then pushed up the ureter to a point just above the common iliac artery. The ureter was then incised and the stone removed. The incision in the ureter was closed by a continuous silk suture of No. 0 Chinese twist passing only through the outer coats, and the peritoneum was sewn over it. The abdominal incision was closed with the exception of the lower part, through which a gauze drain was passed down to the site of the sutured ureter. No leakage took place and the patient left the hospital quite well and free from all symptoms. He was last seen on Jan. 8th, 1901, and was then quite well. The calculus weighed nine grains and was cylindrical in shape, measuring about half an inch by one-third of an inch. It consisted probably of uric acid with a small deposit of phosphates in some places, the surface being very irregular and covered with small knobs. The chief point of interest was in the peculiarity of the symptoms, all of which pointed to vesical calculus, there never having been at any time a single sign or symptom of an unilateral lesion. The suprapubic cystotomy was rendered extremely easy and satisfactory by the air distension, the peritoneum being lifted well up, and the bladder reached with very little disturbance of the cellular tissue. The absence of the usual flooding of the wound on incising the bladder was another great advantage.—Mr. T. H. Kellock suggested that the stone in that position might possibly have been felt per rectum, and, if so, this would have obviated the incision of the bladder. He did not concur in the view that inflation of the bladder with air was so superior to water, because when the bladder was incised the air escaped at once, whereas water was slower to escape. He congratulated Mr. Steward on the success of his suture of the ureter, but remarked that if there had been any leakage this might have proved dangerous, and he wondered why he had not put in the drain from the ureter to the loin.—Dr. J. G. Glover asked if there was any dilatation of the ureter above the seat of obstruction by the stone.—Mr. Charters Symonds congratulated Mr. Steward on the success of his case. In illustration of the difficulty which the diagnosis sometimes presented he mentioned a case in which the urine had an odour suggesting fæcal contamination. A skiagram was made and was stated to show a stone in the bladder, though examination by the sound failed to reveal it. At a subsequent operation a stone was found in the lower end of the left ureter and this was evidently the stone which in the skiagram appeared to be in the bladder. He questioned whether normal urine was of itself a danger in the peritoneum.—Mr. Steward, in reply, adhered to his preference for inflation of the bladder with air instead of water. He put a gauze drain in front because to make a posterior incision it would have been necessary to turn the patient over and clean the skin of the back and he was already exhausted by the operation. The ureter was very little distended—in fact, he had been unable to work the stone up into the loin as he had intended. He admitted that normal urine might not be harmful, but as there had been pus in this patient's urine for some time it might well be septic.

Dr. W. H. B. Brook (Lincoln) read a paper entitled an Attempt at the Antenatal Treatment of Hæmophilia. In June, 1900, he had been consulted by a woman, aged 34 years, who was expecting her confinement early in the following October, whose family history showed a marked tendency to hæmophilia. A brother of her mother died at the age of 11 years from hæmorrhage following the extraction of a tooth. One brother died at the age of 12 years from gangrene following hæmorrhage into the knee-joint. The eldest son of the patient, aged 10 years, was a typical "bleeder," having repeatedly suffered from hæmorrhage into the joints, from the alveoli and gums at the second dentition, and from hæmaturia. Her second son, born in 1894, had hæmorrhage from the cord at birth, showed marked bruising at the age of three months, and died, aged 12 months, from cerebral hæmorrhage. At the birth of each of these children there was considerable post-partum hæmorrhage and the patient was very weak for some time afterwards. Both these children were white when born. With the view of, if possible, obviating this tendency to hæmophilia the patient during the remainder of her pregnancy was placed upon chloride of calcium in doses of 10 grains three times a day in order to increase the coagulability of the blood. Iron and strychnine with arsenic were also given with the object of improving the tone of the vascular system both of the mother and fœtus. The patient was delivered of a male child on Oct. 3rd, 1900; there was no post-partum hæmorrhage and she made an excellent recovery. The child was of a healthy mottled appearance and had shown no tendency to hæmorrhage, not even at the time of vaccination. At the present time he was in excellent health. The patient might yet show signs of the diathesis, but his brothers had shown symptoms before this age.—Dr. SIDNEY COUPLAND thought that while the treatment might have a good effect in respect of the mother it was *going too far to suppose that it could do much for the fœtus*, especially as it had been commenced at such a late period. A large number of observations of the kind would be required to prove its efficacy in this direction.—Dr. C. R. BOX asked Dr. Brook whether any members of that family had suffered from measles, scarlet fever, or other infectious disease, and whether any hæmorrhagic complications had been observed.—Dr. BROOK, in reply, remarked that the tendency of modern views was in favour of the curable nature of hæmophilia, and this fact had encouraged him to try the treatment even at that late period of gestation. He was unable to reply to the last question.

Dr. STCLAIR THOMSON read a paper on a case of Poisoning from the External Use of Aniline Oil. Equal parts of aniline oil and rectified spirits having been recommended as a vehicle for cocaine in order to produce local anæsthesia in the ear[1] Dr Thomson prescribed a 10 per cent. solution of cocaine in this menstruum for a colleague suffering from furunculosis. A small pledget of cotton-wool moistened with this solution was used at bedtime and the patient slept well. Next morning, as the pain threatened to return, he again made use of the drops about 5 A.M. At 7.30 A.M., while still in bed, he quite accidentally noticed a peculiar blueness of his finger nails and his wife remarked that his face was also blue. The face and hands were found to be of a decided dark blue colour, and this was noticeable in the skin under the finger nails and on the lips and tongue. There was no fever or mental disturbance. The pupils were normal. The respiration was quiet and easy. The pulse was small and somewhat increased in frequency, and when Dr. David Lees had examined the heart the left ventricle was enlarged to two finger-breadths outside the left nipple line. The patient had not previously had any heart trouble and there was nothing discoverable in the heart or lungs to account for the cyanosis. It was therefore ascribed to the toxic effect of the aniline oil on the red corpuscles. The blue colour gradually disappeared in the course of the day. The area of cardiac dulness again became normal and no murmur was discoverable. Reference was made to a communication made to the Académie de Médecine in July last by M. Landouzy and M. Georges Brouardel describing the cases of ten children who were seized with prostration, pallor, and blueness soon after wearing yellow shoes which had recently been coated with a pigment found to contain 90 per cent. of aniline. When this dye was applied to the shaven surface of the skin of guinea-pigs and rabbits they died asphyxiated in from 24 to 30 hours. Some unpublished cases of Dr. Kelynack described similar symptoms, together with gastro-intestinal catarrh and anæmia in chronic cases, among those employed in aniline works. Evidently the skin readily absorbed aniline, and this might give rise to alarming symptoms which could not otherwise be explicable.—Dr. CHARLES W. CHAPMAN said that he was the patient whose case had been described and remarked that the most important point seemed to be the cardiac dilatation, which had called for prolonged rest. Unless this were remembered in future cases a patient by getting about too soon might inflict permanent damage on the dilated heart. He also remarked upon the smallness of the dose.—Dr. LEWIS G. GLOVER, alluding to Dr. Thomson's remark that the symptoms reminded him of poisoning by antipyrin, asked whether any cardiac dilatation had been noticed in this connexion. He referred to a case in which large doses of exalgin had been taken and he had noticed marked blueness but no cardiac dilatation.—Dr. STCLAIR THOMSON, in reply, said that in a case of antipyrin poisoning he had noted some cardiac dilatation, but as the patient was suffering from typhoid fever the dilatation might possibly have been caused by the fever.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on April 11th, Dr. E. Wearne Clarke, the President, being in the chair.—Dr. G. Wilkinson showed: 1. A patient, aged 42 years, from whom the Right Half of the Lower Jaw had been Removed. He had had a tumour of the jaw for two years. The specimen with microscopic slide was shown—a dental cyst in the lining of which a large epitheliomatous tumour had developed. 2. A patient from whom a large Round and Spindle-celled Sarcoma had been removed from the naso-pharynx and right nasal fossa after supra-alveolar excision of the right upper jaw. 3. A patient who had been operated upon successfully for Ruptured Gastric *Ulcer seven hours after onset of symptoms* of rupture. 4. A case of Transverse Fracture of the Patella with close (? bony) union and perfect mobility of the joint treated by elastic compression, massage, and passive movements.—Dr. D. Burgess showed the following cases: 1. Disseminated Sclerosis with general (not "intention") Tremors. 2. Paraplegia following immediately on an attack of Rheumatic Fever. 3. Glossitis Exfoliatricans Marginata of three years' duration in a child. 4. A case of Hydatid of the Lung.—Dr. Arthur J. Hall showed the following cases: 1. Lymphangiectodes in a young man. The affection had been noticed since childhood and it occupied a large area over the lower half of the right scapular region extending round to the axilla. It consisted of numerous small groups of vesicle-like structures of a brownish colour containing clear fluid and consisting of dilated lymphatics. Here and there were small clusters of mixed lymphatic and blood capillary tufts. 2. Bilateral Rodent Ulcer of six years' duration in a woman. The new growths occupied the skin just beyond the outer angle of the right eye and the inner half of the left lower eyelid. Ulceration was slight on the right side and absent on the left side. There was no glandular enlargement. Microscopically it was indistinguishable from rodent ulcer. 3. A case of Extensive Psoriasis. 4. An unusual form of Occupation Dermatitis in an elderly man who had worked all his life as "finisher" in the electro-plating trade. In this occupation he handled a mixture of finely-powdered lime with sufficient oil to form a soft adhesive powder. Fissures which appeared in the course of an attack of dermatitis, instead of healing became larger and formed gradually enlarging ulcers. *The explanation* was that the lime becoming lodged in the fissures and being moistened with lymph formed a slight caustic which caused the ulceration. Protection of the fissures and ulcers soon brought about healing.—Dr. Hall also showed the following microscopic specimens:—(1) Squamous Epithelioma of the Mamma; (2) Rachitic Rib; (3) Skin showing a Deposit of Coal-dust in the Dermis (miners' marks); (4) Extreme Fatty Degeneration of the Myocardium, from a girl, 15 years of age, who had marked congenital syphilis and who died with symptoms of heart failure; and (5) Syphilitic Interstitial Myocarditis in a young man who died in an epileptic fit and in whom the whole of the left ventricle was permeated by fibrous tissue.—Dr. Wilkinson read a paper on Aseptic Methods in General Practice. The importance of asepsis in general practice was insisted upon and several simple methods of sterilising and keeping sterile instruments, catheters, and surgical dressings were demonstrated.

PATHOLOGICAL SOCIETY OF MANCHESTER.—A meeting of this society was held in the Medical Society's Reading Room, Owens College, on April 10th, Dr. A. T.

---

[1] Dr. A. A. Gray THE LANCET, April 21st, 1900, p. 1125.

Wilkinson being in the chair.—Dr. D. Orr and Dr. R. G. Rows gave a lantern demonstration illustrating the Normal Cells in the Posterior Root Ganglia of the Dog and of the Human Subject; they also exhibited the degeneration which occurred in these cells in general paralysis of the insane. The nerve cells of the ganglia were grouped under five types, according to the variations in the size and arrangement of their chromophile elements; attention was directed to the fact that each variety of cell degenerated in a characteristic manner. Special mention was made of the difficulty encountered in procuring an efficient fixative for the delicate cells of the spinal ganglia, and the value of a mixture of saturated solution of corrosive sublimate and picric acid in equal parts in preference to inefficient fixatives, such as alcohol and formalin, was demonstrated. Spaces and shrunken cells were then shown to be artefacts due entirely to imperfect fixation or post-mortem change in the tissues.—Professor J. Dixon Mann showed the Stomach of a Patient who died from Malignant Disease of the Pylorus, together with a number of the Pupa-cases of a Dipterous Insect, probably the House-fly, which were found in the stomach after death. Nothing was observed during life that indicated the presence of the larvæ; none were seen in the frequent and copious vomit. The extreme narrowing of the pylorus caused by the carcinomatous deposit was sufficient to prevent the pupa-cases being evacuated by the bowels.—Mr. J. E. Platt showed a specimen of Cirsoid Aneurysm of the Forehead removed by operation. The patient was a male, aged 25 years, and the tumour had been growing for four years before operation. No history of injury or other cause for its growth could be discovered. It was fed chiefly by branches of the superficial temporal artery, but also to some extent by the supra-orbital and frontal arteries. Three large veins from its deep surface entered the diploë. The superficial temporal artery had been ligatured near the zygoma and the aneurysm was afterwards removed by dissection. The operation had not been attended by any great amount of hæmorrhage and the patient had made a rapid and complete recovery. The tumour was composed of a close network of thin-walled blood-vessels.—Dr. W. E. Fothergill showed a drawing of Multiple Ulcers of the Inner Side of the Left Thigh in a patient who was suffering from Kraurosis Vulvæ. The onset and appearance of the ulcers were much more suggestive of one of the infective granulomata than of malignant disease, but microscopical sections of a clipping from the edge of one of the ulcers (shown) clearly demonstrated the epitheliomatous nature of the condition.—Dr. T. N. Kelynack exhibited a number of coloured drawings, photographs, and other preparations illustrating the more important lesions met with in the recent cases of Arsenical Poisoning from contaminated beer occurring in Manchester and the surrounding districts.

Manchester Medical Society.—A meeting of this society was held on April 3rd, Mr. A. H. Young, the President, being in the chair.—Dr. J. Stavely Dick mentioned a case of Pneumonia which ran a mild course. The defervescence occurred on the ninth day, respirations, pulse, and heart sounds being all normal on that date. Next day there was a sudden attack of palpitation of short duration, the pulse being so irregular and intermittent as to be uncountable; this was followed by three days of apparently most satisfactory convalescence, then a return of the irregular cardiac rhythm and unexpected death in two hours. Dr. Dick suggested pulmonary thrombosis as the most probable cause of death; and also the *a priori* probability that the coagulability of the blood varied in different types of pneumonia, and that this might be a factor worth consideration in connexion with unexpected deaths in convalescence.—Dr. Dick also read notes of a case in which the cannula was removed three and a half years after operation for Laryngeal Diphtheria with a good result for three months, when reintroduction of the cannula became necessary during a severe attack of influenzal laryngitis.—Dr. A. T. Wilkinson showed two cases that had been under his care in the Manchester Royal Infirmary, Dr. F. Craven Moore describing the pathological conditions found post mortem. In the first case the patient was a man, aged 35 years, with marked mitral stenosis, internal and external pericarditis, and old femoral and recent renal thrombosis. The interest lay in the efficient protection of the general circulation and system by the great hypertrophy of the left auricle and right ventricle compared with the marked lung induration, &c., which in effect led to the fatal issue, though actually the man died from syncope. The left auricle contained 10 ounces of clot and showed efficient muscle. The left ventricle was normal. The heart weighed 26 ounces. The second case was that of a woman of cachectic appearance, aged 43 years, with gastric disturbance dating back one year and intense obstructive jaundice of four and a half months' standing. She had recurrent vomiting and severe epigastric pain. The vomited matter contained free HCl. There was neither sugar nor albumin in the deeply jaundiced urine. The liver was somewhat enlarged and the gall-bladder was distinctly palpable. Otherwise no tumour could be discovered. The patient went from bad to worse and with falling temperature and delirium she died from asthenia and cholæmia. The necropsy showed a dilated stomach and the first part of the duodenum was catarrhal; there was a new growth of the ampulla of Vater; the mucous membrane over the papilla was healthy; the pancreatic duct was dilated and the tissue was sclerosed.—Dr F. Villy made some remarks on some cases of Intubation for Laryngeal Diphtheria.—Dr. J. Dreschfeld mentioned a case of Sarcoma of the Pleura and showed specimens.

Folkestone Medical Society.—A meeting of this society was held at the residence of Dr. T. Eastes on April 3rd.—Mr. A. W. Read read a paper on the Clinical Relationship of the Various Forms of Bright's Disease and some of their Symptoms in which the difficulty of connecting chronic renal disease with antecedent acute nephritis was set forth. Reference was specially made to the insidiousness of chronic renal cirrhosis, advice being often sought for symptoms which apparently had no connexion with the kidney. Mr. Read spoke about the difficulty of establishing the relationship of the small white contracted kidney with antecedent nephritis on the one hand, and with the red granular kidney on the other. The second part of the paper made reference to uræmia, the various forms of dyspnœa or so-called uræmic asthma, and the relationship of the skin to the kidneys. Mr. Read remarked that frequently patients suffering from uræmia would refer to a period in the past during which they were wont to perspire freely; when this excessive action of the skin ceased vague symptoms of malaise came on and a toxæmic condition arose. The paper closed with a passing reference to the use of pilocarpin, morphia, and calomel in cases of renal disease.—A discussion followed in which the following took part: Dr. W. J. Tyson, Dr. C. Latter, Dr. P. V. Dodd, Dr. A. E. Larking, Dr. P. G. Lewis, Dr. W. L. Chubb, Mr. W. F. Chambers, and Mr. A. Randall Davis.

Bristol Medico-Chirurgical Society.—The seventh meeting of the session of this society was recently held in the Medical Library of University College, Dr D. S. Davies being in the chair.—Mr. T. Carwardine showed a patient after operation for a large Ventral Hernia.—Dr. L. Firth spoke on the condition of the patient.—Dr. Walter C. Swayne read notes on a series of cases of Cœliotomy for Diseases of the Uterus and Ovaries.—Mr. J. Ewens, Dr. E. H. Stack, Mr. Paul Bush, and Dr. Firth discussed the paper.—Mr. Munro Smith read, for Mr. A. W. Prichard, notes of several operations undertaken for the Closure of an Artificial Anus.—Dr. Firth and Mr. Carwardine remarked on the case.—Dr. Stack read notes of a case simulating Plague.—Dr. Davies, Dr. J. E. Shaw, Professor Stanley Kent, Dr. T. Fisher, and Dr. James Fletcher remarked on the case.

Wigan Medical Society.—A meeting of this society was held on April 11th, when Mr. Hugh E. Jones read a paper (which was illustrated by diagrams) on Glaucoma, with Special Reference to its Differential Diagnosis in Routine General Practice.—An interesting discussion followed and the following members took part in it: Mr. W. Latham (the President), Dr. F. Rees, Mr. C. M. Brady, Dr. J. Blair, Mr. J. H. Fletcher, Mr. E. H. Monks, and Dr. J. M. Boyd.

Cardiff Infirmary.—At the meeting of the managing committee of the Cardiff Infirmary held on April 11th it was reported that the new operation theatre was nearing completion, and it was hoped that it would be formally opened on June 6th. It was decided to invite Mr. Edmund Owen of St. Mary's Hospital, to perform the opening ceremony.

Reviews and Notices of Books.

Lehrbuch der Physiologie des Menschen. Von G. VON BUNGE, Professor in Basel. Erster Band: Sinne, Nerven, Muskeln, Fortpflanzung. In Acht-und-zwanzig Vorträgen. Mit 67 Abbildungen im Text und 2 Tafeln. (*Text-book of Human Physiology.* By Professor G. VON BUNGE of Basle. Vol. I.: Senses, Nerves, Muscles, Reproduction. In 28 Lectures. With 67 Illustrations in the Text and 2 Plates.) 8vo. Leipsic: F. C. W. Vogel. 1901. Pp. 381. Price 10*s.*

THE text-book here presented to the student by Professor G. von Bunge of Basle has some peculiarities. It is written in the form of a series of essays or lectures delivered, we presume, to his class—an arrangement which has the advantage of permitting a freer style of expression than is common in physiological treatises; in fact, Brücke's Vorlesungen constitute the only example with which we are acquainted of a work written on the same lines. The order in which the several subjects are considered is unusual, for Professor von Bunge commences with the consideration of the senses, which naturally leads to that of the brain and to the discussion of the subjects of sleep, hypnotism, and hybernation. Then follow chapters on the Sympathetic System of Nerves; on the General Physiology of the Nerves and Muscles; Animal Electricity, Voice and Speech, Generation and Heredity,—all subjects that are usually relegated to the close of a treatise on physiology. The reasons advanced by the author for commencing with the senses are that all our ideas are derived from and through them and that they therefore constitute the basis on which physiology must rest, whilst from another point of view they form the crown and summit of all human knowledge.

Professor von Bunge has produced an eminently interesting and readable book and this is mainly due to the clever manner in which he adduces facts ascertained by experiment or drawn from pathology to illustrate and to support his views. A well-told case, as readers of the works of Watson and Trousseau, Graves and Charcot and Latham, will readily admit is often more convincing than a dozen pages of reasoning, however logical it may be. This anecdotal mode of writing renders Professor von Bunge's treatise quite refreshing to read. He has collected from various sources some interesting facts in regard to pain, a subject which, whilst it looms large in medical practice, is often passed over in silence in works on physiology. He remarks incidentally that the laity generally, and the antivivisectionists in particular, have imbibed the erroneous idea that the deeper the cut and the more deeply seated the organ the more acute is the pain experienced, whereas muscle and bones and tendons are nearly insensitive, and the same may be said of the brain and liver, though the growth of tumours or the process of degeneration may be accompanied by much suffering. The centres for pain are unknown, though they are probably to be located in the brain.

The chapter on Hearing is an excellent instance of the uncertainty of physiological inferences and statements that are usually accepted as perfectly demonstrated. In the first place, it seems to be established that fish are absolutely deaf, the stories of carp assembling at the sound of a bell being erroneously interpreted according to recent experiments, whilst removal of their semicircular canals has no influence on their equipoise or movements. The labyrinth seems in these animals to have nothing to do with hearing. Moreover, the utriculus and the semicircular canals can be removed in birds and even in mammals without producing deafness. The author points out that Ménière's disease may occur as a result of lesions and disturbances of the middle ear and of affections of the acoustic nerve and cerebellum, and Politzer has seen a case of complete absence of the semicircular canals in man without any disturbance of coördination. It is clear that the subject of hearing requires further research before the functions of the several parts can be allocated with certainty. The course of the sensory and motor fibres in the spinal cord and brain are well traced, the author relying for his illustrations upon Professor Edinger. It is remarkable to find that at the beginning of the twentieth century the functions of the cerebellum are almost entirely unknown, the last statement being that in many animals and in man it has little or nothing to do with the strength or activity of the muscles or with their coördination, whilst it is possibly, as Gall maintained, associated with the sexual instinct.

Some interesting observations are made upon sleep. The author has been at considerable pains to discover the origin of the statement frequently made that a Chinese mode of punishment is death by prevention of sleep. He traces it to the late Dr. Forbes Winslow who appears to have copied it from the *Louisville Semi monthly Medical News*, published in 1859, a journal that von Bunge has not been able to meet with. Still, if, as in Madame Manasseine's experiments, sleep be prevented for four or five days in young dogs they die, death being preceded by a great fall in the temperature and by a reduction in the number of the blood corpuscles from 5,000,000 to 2 000 000 per cubic millimetre and by considerable loss of weight. Man sleeps away one-third of his life and the dog two-thirds, but the sleep of the latter animal is very light; and Professor Bunge thinks that on this very circumstance depends the prehistoric association of man and the dog which he regards as a true symbiosis, the watchful and easily awakened dog guarding the more profoundly sleeping man from nocturnal beasts of prey, whilst man, with the aid of the dog, provides by hunting during the day the food for both. The observations on dreams are also good, and not less interesting is the chapter on Hypnotism. In conclusion, we have much pleasure in recommending Professor von Bunge's book to our readers.

A Text-book of the Diseases of Women. By H. T. GARRIGUES, A.M., M.D. Third edition, thoroughly revised. With 367 Illustrations London and Philadelphia: W. B. Saunders and Co. 1900 8vo. Pp 756. Price 18*s.*

THE fact that this book has reached a third edition is a proof that it has met the expectations of its author. His aim has been to write a practical text-book, and he may be said to have in part succeeded. In many instances the book enters into much more detail than is the case in the ordinary gynæcological text-book, while as regards modes of treatment Dr. Garrigues undoubtedly shows a considerable wealth of resource.

The work is divided into special and general diseases. The first part treats of the Development, Anatomy, and Physiology of the Pelvic Organs and Treatment in General. The second part includes an account of all the Various Diseases of the Genital Tract. The chapter upon the Development and the Anatomy of the Pelvic Organs is condensed from the author's article upon the subject in a "System of Gynæcology," by American authors. It gives a very complete account of the subject and is fully illustrated. The author's contention that the illustrations form a complete atlas of the embryology and anatomy of the female genitalia may be considered as correct. The illustrations throughout the whole book are numerous and on the whole are well chosen and well reproduced. The chapter upon General Etiology contains many useful suggestions. The subject of special examination and local treatment is [illegible] very fully discussed. It is interesting to note that Dr. Garrigues, although fully approving of the principles of the Weir-Mitchell treatment, is of opinion that gynæcological patients should have as much open-air exercise as possible, a point upon which we fully agree with him. The value of medical and electrical treatment is fully recognised, and, as is stated in the preface, they are whenever possible accorded precedence over surgical measures. In support of his recommendation of electrical treatment the report of the special committee appointed by the American Gynæcological Society is quoted, three out of its four members being in favour of electricity as a therapeutic measure. The portions of the book dealing with minor gynæcology and its disorders are much fuller and more complete than those devoted to the more serious diseases. This inequality of treatment destroys the book's claim to be a really first-class text-book. It is, however, eminently practical and will no doubt prove of value to such as are in need of just the information it furnishes. The printing is good and the index is sufficiently full.

A Text-book of Pharmacology and Therapeutics, or the Action of Drugs in Health and Disease. By Arthur R. Cushny, M.A., M.D Aberd., Professor of Materia Medica and Therapeutics in the University of Michigan; formerly Thompson Fellow in the University of Aberdeen and Assistant in the Pharmacological Institute of the University of Strassburg. London: Rebman, Limited. 1900. Pp. 730. 47 Engravings. Price 21*s.*

Text-books on pharmacology, materia medica, and therapeutics are numerous, and many of them are excellent manuals, and there would seem to be no call for an increase in their number. The volume now under consideration, however, is intended to supply a want in the teaching of the subject of pharmacology to those students who have completed the purely scientific branches of medicine and are beginning their clinical studies. Dr. Cushny has attempted to bridge over the hiatus which exists between the phenomena occurring in the normal organism and those which are elicited in the therapeutic use of drugs, to show how far the clinical effects of remedies may be explained by their action on the normal body, and how these in turn may be correlated with physiological phenomena. It necessarily follows that the subject is treated from the experimental standpoint and that the results of the laboratory investigator are made the basis of almost every statement. Starting with such ideas, which the author has consistently followed, a most interesting volume is the result.

The introduction, which occupies 42 pages, deals in a capable manner with the mode of action of drugs, their elective affinity, their chemical composition, their pharmacological action, their methods of administration, and their classification.

Part I. is headed "Organic Substances which are Characterised chiefly by their Local Action." These include the demulcents, emollients, flavouring substances, bitters, counter-irritants, and the like. Part II. is occupied with a consideration of "Organic Substances Characterised chiefly by their Action after Absorption." The author's remarks on alcohol are worthy of note. In answer to the question, "Is alcohol a food?" he remarks: "It would seem, therefore, that while alcohol undergoes combustion in the tissues and leads to the deposit of fat it is questionable how far it can replace the carbohydrates and fats in their relation to nitrogenous metabolism; that is, alcohol tends to prevent the waste of the fats and carbohydrates of the body, but probably is of little value in economising the nitrogenous waste. If alcohol is to be used as a food it must be associated with a diet rich in proteids and on this condition it can replace to some extent the ordinary foodstuffs."

The whole work has been conducted on sound scientific principles, the experiments have been carried out with care and skill, and the accounts given of them are full and easily comprehended and form a most valuable addition to our knowledge of the actions of drugs. A good example is that of the experiments performed to show the action of ether and chloroform. The effects on the central nervous system, the respiratory centre, the circulation, the blood, and metabolism of the tissues are carefully demonstrated; and the observations on the "cause of death" from these anæsthetics are interesting and instructive.

A typical example of the general plan on which the different drugs are discussed is yielded by the section on the Opium Series The opening remarks deal with the chemical characteristics of opium and its derivatives, then follows a description of the symptoms produced by their administration in animals and in man. The physiological action is next considered, the effect produced on the various systems of the body being clearly recounted. A list is given of the preparations of the drug as found in the pharmacopœias of the United States and Britain. The therapeutic uses of opium and its derivatives receive due attention and the symptoms of poisoning, both acute and chronic, are accurately described. It will thus be seen that the manual is made as complete as possible. We have not space to comment on the many other excellent accounts of the various drugs, but we would especially mention as well worthy of perusal the remarks on antipyretics (acetanilid and antipyrin series) and on the digitalis series.

Part III. is concerned with Combinations of the Alkalies, Alkaline Earths, Acids, and Allied Bodies; Part IV. describes the actions and therapeutic uses of "the Heavy Metals"; Part V. imparts useful information on Ferments, Secretions, and Toxalbumins; and Part VI., which only occupies a couple of pages, is headed Menstrua and Mechanical Remedies.

Taking the book as a whole, we consider it a most valuable publication and can thoroughly recommend it to our readers who desire reliable and exhaustive information on pharmacology.

Atlas and Epitome of Special Pathologic Histology. By Docent Dr. Hermann Durck, Assistant in the Pathologic Institute; Prosector to the Municipal Hospital L.I. in Munich. Authorised translation from the German. Edited by Ludvig Hektoen, M.D., Professor of Pathology in Rush Medical College, Chicago. Circulatory Organs; Respiratory Organs; Gastro-Intestinal Tract. With 130 Coloured Illustrations on 62 Lithographic Plates. London and Philadelphia: W. B. Saunders and Co. 1900. Pp. 158. Price 13*s.* net.

The present volume forms the first of a series of three designed to cover the whole ground usually embraced under the term "pathologic histology." These volumes enter also into the general series of hand atlases produced by the same publishers. In an address given at the Medical Graduates' College and Polyclinic Professor Osler said that instead of looking to the East, as in times past, for wisdom we should in the near future turn rather to the West, and at the present moment the west is certainly doing much to transmit the wisdom of Europe to English-speaking races, judging by the very large number of American translations of German works which are being published. It must be confessed that the importance of the works selected for translation and the general excellence of the publications justify this movement, and the present work forms no exception to the rule. The book appears to be not so much an atlas with descriptions of the plates as a concise systematic pathology which is excellently illustrated by the drawings reproduced. The plates are lithographs in colour and seem to be admirable representations of typical histological sections. It is interesting to compare them with some recent photographic illustrations of pathological processes which have appeared, and it must be confessed that the comparison is in favour of the lithographs. Photographs of sections, except for special purposes, are not very useful for demonstration, and it seems a pity to give up the advantage of colour which can accurately reproduce the effect of the stains which are of such great importance for the differentiation of the tissues. While recognising the value of such a book as the present there seems to be some danger of its improper use—the student is apt to consider these illustrations as substitutes for his own sections instead of merely aids by which he may learn to recognise what his own specimens teach. The author himself recognises this danger and deprecates the separation of the book from the teaching of the laboratory. The methods used in the preparation of the sections appear to be up-to-date, but there is attached to the descriptions of the figures no statement of the staining methods or the stains used; the magnification is in all cases given.

The lithographs are produced in Munich and are good. Unfortunately, this book, like so many containing plates, is indifferently dealt with by the binder and, unless we are unlucky in our copy, a moderate amount of wear and tear will leave very few plates undetached. The book, with the caution as to its use mentioned above, will prove a useful addition to the libraries of medical students and will probably be decidedly popular.

Terapia dell' Afasia e degli altri Disturbi del Linguaggio. Por H. CHARLTON BASTIAN, M.A., M.D. Londra, F R.S. Traduzione Italiana del Professore UMBERTO GABBI. Torino: Unione Tipografico-Editrice. 1901 Pagg. 470. Prezzo 6 lire. (*On Aphasia and other Defects of Speech.* By H. CHARLTON BASTIAN, M A., M.D. Lond, F R.S. Translated into Italian by Professor UMBERTO GABBI.)

THIS work is a translation of Dr. Charlton Bastian's book, "Aphasia and other Speech Defects," which in its English dress was reviewed in THE LANCET of Oct. 15th, 1898, p. 997. The book itself is an expansion of the Lumleian Lectures which Dr. Bastian delivered before the Royal College of Physicians of London in 1897 and which were published in full in our columns.[1] Dr. Bastian's views on this somewhat intricate subject are well known and if not universally accepted are in this work supported by plenty of confirmatory evidence. Shortly, he considers that the so-called motor areas in the brain are really sensory centres of "kinæsthetic type," and in connexion with speech processes he believes that there are two centres of this type—a glosso-kinæsthetic centre related to articulatory processes and a cheiro-kinæsthetic centre in connexion with writing processes. Besides these there are an auditory word centre and a visual word-centre—sensory centres—and lesions accounting for speech defects are to be looked for in those centres or in the fibres connecting them with each other or with the motor centres in the bulb, or in these motor centres themselves.

The problems involved in the consideration of such a subject as aphasia are by no means easy, neither can the matter be expressed in very simple language But Professor Gabbi has, we think, been very successful in his difficult task of translation from a foreign language and his work will be of the greatest value to those of our foreign medical brethren who cannot read an English treatise. Praise is due to the printing of the book which is very clear.

Affections Chirurgicales du Tronc, Mamelles, Organes Génitaux de la Femme: Statistique et Observations. (Surgical Affections of the Trunk, Breasts Female Genital Organs: Statistics and Observations) By Professor POLAILLON. With Illustrations. Paris: Octave Doin. 1901. Pp. 750.

THESE statistics are based upon the practice of Professor Polaillon during the 20 years from Jan. 1st, 1879, to Jan. 1st, 1899. When the practice of antiseptic and aseptic surgery had demonstrated how benign surgical operations had in general become most of the affections peculiar to the female genital organs appeared to be susceptible of cure by operative measures. The result was that operative gynæcology was practised to such an extent that in view of the immediately successful results the ultimate fate of the patient was in danger of being overlooked. As Professor Polaillon points out, the rôle of statistics is to recall us to the realities and to prove that operative success is not always synonymous with therapeutic success, and that the safety of operations is but relative. As he shows, in spite of the progress due to antisepsis and asepsis the mortality of major abdominal operations is still considerable. Even if it ever be reduced to *nil* for minor operations it must in complicated cases bear a relative proportion to the severity and length of the operation and the condition of the patient. It is chimerical to hope that the present operative mortality will ever entirely disappear, although in the future it may still be lessened to a considerable degree. The present collection of cases and statistics is one of much value, although owing to the fact that the figures for the whole 20 years are grouped together it is not so valuable as it would have been if they had been divided into four-yearly periods. In this way very interesting comparisons could have been drawn between the various periods. The book contains, however, some most interesting cases fully detailed and very complete statistical tables. It is impossible for us to summarise the figures here, but for anyone in search of results the work is one of importance. The book is a continuation of works of the same kind dealing with other parts of the body which have been already published by the author.

LIBRARY TABLE.

Diphtheria: Modern Views as to its Origin, Dissemination, Treatment, and Prevention. By JOHN C. THRESH, M.D Vict., and A. E. PORTER, M D Cantab. Chelmsford: John Dutton. 1901.—This is a little pamphlet of 16 pages which was compiled for the information of members of sanitary authorities at the request of the Sanitary Committee of the Essex County Council. It gives in plain and simple language information on the following points: (1) the cause of diphtheria; (2) the value of bacteriology in detection and diagnosis; (3) the value of antitoxin as a curative agent; and (4) the use of antitoxin in the prevention of the disease. The pamphlet should be exceedingly useful in explaining reasons for isolation and certain forms of treatment to those who naturally enough do not understand such matters at first. Any sensible man who has doubts as to the infectiveness of diphtheria, as to the need for isolation, or as to the value of the antitoxin treatment will have his doubts set at rest by reading the pamphlet. There are, of course, those who, like the rich man's brethren, would not be converted though one rose from the dead, and to such the facts stated will not naturally appeal, but to the ordinary mind they will carry conviction.

Sexual Debility in Man. By F. R. STURGIS, M.D. London: Rebman, Limited. 1901. Pp. 432. Price 12*s.* 6*d.*—"To the sexual cripples of the United States whose infirmities have in part contributed to his support, this book is gratefully dedicated by their obliged friend, the author." This is the dedication of Dr. Sturgis's book and one which, we think, is unfortunate For those to whom a book is dedicated are generally supposed to read it, and yet Dr. Sturgis says in his preface that the principal reason for writing it "is to introduce to the reading medical public sundry opinions." We really can see no reason why the book should have been written at all. The author's views upon the points mentioned in the preface are certainly sound, but there is nothing new in them. No medical man nowadays believes that masturbation, albeit a degraded and unclean habit, leads to such appalling mental and physical degeneration as is set out in quack pamphlets, neither does any believe that spermatorrhœa and the ordinary physiological seminal emission to which any healthy man leading a continent life is liable are the same thing. Why, then, write a book to make clear these points? Possibly, however, Dr. Sturgis wishes his friends, the sexual cripples, to read his book: if this is so he should not have filled the work with what we must call dirty stories. To our minds the publication of the book involves Dr. Sturgis in this dilemma: if it is meant for the medical profession there is nothing in it new or which, we should imagine, every medical man does not know; if he intends it for the sexual cripple there is a great deal too much matter and that of the wrong kind. If Dr. Sturgis reprinted very briefly his views on masturbation and nocturnal pollutions and published these views separately he might be the means of saving the ignorant and foolish from the den of the sexual quack. But as a contribution to medical literature the book is worth nothing.

---

[1] THE LANCET April 3rd (p 933), 10th (p 1005), and 24th (p. 1131), and May 1st (p. 1187), 1897

Rodney Stone. By A. CONAN DOYLE. London: Smith, Elder, and Co. 1901. Pp. 366. Price 6*s.*—This is a new edition of Dr. Conan Doyle's delightful story which was first published in 1896. So many people have read the book that we need not say much about it here, except that if anyone wants a well-written story full of incident and dealing with an interesting period he cannot do better than select "Rodney Stone." We wonder if it has ever occurred to the author to turn his book into a Drury Lane drama. The incidents of the prize-fight, the race from Brighton to London, and the closing scene where the wicked nobleman is fetched away by Old Nick in the shape of bailiffs would appeal to a popular audience.

The Column: A Novel. By CHARLES MARRIOTT. London: John Lane. 1901. Pp. 468. Price 6*s.*—This is a very cleverly written and, at the same time, a most aggravating book. It is scrappy and indeterminate, neither is there any definite plot; but it is full of cleverly drawn characters, none of whom, however, has much to do with any other. The most interesting one from our particular point of view is Dr. Caspar Gillies. He is a very original person and, we should say, would be hopelessly unsuccessful as a practitioner, but he must have been a genius, for he managed to make a little village orchestra play the B minor symphony of Schubert. Daphne, the chief female character, is a curious survival, a modern pagan, addicted to bathing with nothing on and to sitting in a dreamy unconscious state by an old Doric column which had been brought from Greece by her father, a famous Hellenist with a quaint family history. She first came into contact with the offensive prig whom she married—an exceedingly clever portrait, by the way—when playing the viola near this column at night while he lay beneath it with a broken leg. It is clever of Mr. Marriott to have given Daphne a viola to play, for that curious instrument, with its thin, sad tone, with its disproportion between its body and its scale, is an apt likeness of Daphne, who never seems to have been happy except when out of the body in one of her quasi-cataleptic intervals. We note, too, that just before she committed herself to the sea she deliberately bade the instrument farewell after having cut its strings—an act which, if it implies anything, implies an association in Daphne's mind between her personality and her viola. Mr. Marriott is evidently a young man as well as a young writer. Let him try to forget Meredith, Henry James, and Nathaniel Hawthorne; let him write another book with a plot and in a style of his own, and we dare to say that with his power of character-drawing it will be a really good work.

Analytical Records

FROM

THE LANCET LABORATORY.

NUTRABIN.

(FLETCHER, FLETCHER, AND CO., HOLLOWAY, LONDON, N.)

NUTRABIN is a rich proteid food made, as it is stated, with the proteids of milk and beef. Moreover, it contains the peptonic and pancreatic enzymes which are calculated to convert the proteids into assimilable proteoses. The preparation contains a relatively small proportion of carbohydrates and very little fat. Our analysis was as follows: moisture, 9·90 per cent.; mineral matter, 4·16 per cent.; proteids, 60·00 per cent., equal to nitrogen, 9·59 per cent.; fat, 1·20 per cent.; and carbohydrates, 24·74 per cent. The ash contains over 50 per cent. of soluble salts, chief amongst which is the dietetically important salt, phosphate of potassium. The proteids are for the most part in a soluble form, cold water extracting no less than 32·40 per cent. of the preparation. Doubtless a greater proportion than this is soluble in warm water. The greater part of the proteid matter is evidently derived from milk, for the cold water extract behaves like a solution of casein. Nutrabin is a cocoa-coloured powder possessing a strong vanilla flavour and odour. For use it is prepared much in the same way as cocoa. The flavour would not be regarded as agreeable by everyone, resembling that of a weak cocoa infusion associated with vanilla. It is undoubtedly a good nutrient, especially available for those cases in which the powers of nutrition and assimilation are weak.

NORFOLK CIDER (STILL).

(W. GAYMER AND SON, ATTLEBOROUGH.)

We have received two specimens of still cider in bottle, one described as very dry and the second as first quality dry. The results of analysis of the first were as follows: alcohol, by weight 5·25 per cent., by volume 6·55 per cent., equal to proof spirit 11·49 per cent.; extractives, 4·71 per cent.; ash mineral matter, 0·27 per cent.; volatile acidity reckoned as acetic acidity, 0·14 per cent.; fixed acidity reckoned as malic acid, 0·42 per cent.; and sugar, 0·25 per cent. The results of analysis of the second sample were as follows: alcohol, by weight 5·25 per cent., by volume 6·55 per cent., equal to proof spirit 11·49 per cent.; extractives, 5·88 per cent. mineral matter, 0·29 per cent.; volatile acidity equal to acetic acid, 0·19 per cent.; fixed acidity equal to malic acid, 0·38 per cent.; and sugar, 2·90 per cent. Both were excellent specimens of cider in perfectly sound condition and with delicate apple-like odour and acid flavour. The "dry" specimen might easily pass for a light Sauterne wine. Cider is a well-known wholesome beverage when sound and free from excessive acidity, as is the case with the specimens before us, and there are many who would prefer the still variety to the sparkling. An excess of carbonic acid gas is not always desirable. These specimens are similar to the sound cider drawn from the barrel. We could trace no objectionable preservatives. It is interesting to add that cider contains volatile ethers of the same character as those present in wine. We found in the "very dry" specimen before us that the volatile ethers amounted to 1·4 parts per 10,000. Lastly, the mineral matter of cider is rich in potash salt which when ignited produces potassium carbonate. This fact may account for the reputed value of cider as a beverage in gouty and rheumatic conditions.

PORCHERINE.

(PORCHERINE, LIMITED, 11, QUEEN VICTORIA-STREET, LONDON, E.C.)

"Porcherine" is described as a new sweetening product and the discovery of a French chemist, M. Porchere. A specimen which we received was a somewhat syrupy liquid with a most intense and persistent sweet taste. It is evidently the sodium salt of a coal-tar derivative. Both the ammonium group and the sulphonic group are present in the substance. On evaporating the liquid and igniting it an ash of sodium sulphate was left behind and the fumes possessed an aniline-like odour. On heating with soda lime "Porcherine" gives off ammonia freely. On adding dilute acid to the fluid a dense white substance separates which is probably the prime material. This dissolved in soda gives the fluid "Porcherine." From a number of investigations made in France "Porcherine" would appear to be without injury to health. The fluid is said to possess a sweetening power 250 times greater than sugar. It is suggested as a convenient sweetening agent for the use of the gouty and diabetic and for the purpose of sweetening confectionery, jams, mineral waters, &c. Its sweetening power is certainly remarkable.

EGYPTIAN FOOD.

(W. SYMINGTON AND CO., BOWDEN STEAM MILLS, MARKET HARBOROUGH.)

As is well known, the lentil is remarkably rich in proteids, more so than the pea or the bean, and further it is decidedly more digestible. The preparation before us is made from the best Egyptian lentils which are superior dietetically to any others. The food is well prepared and consists of a perfectly uniform flour. It possesses the characteristic flavour of the freshly-ground lentil, a flavour which, like that of coffee, may easily be sacrificed during the process of manufacture or preparation. The nourishing qualities of this food are unquestionable and we are glad to note that the manufacturers describe exactly what the food is upon the label of the tin, and this description according to the results of our examination is accurate.

NONPHOSS WAX VESTAS.

(THE NON POISONOUS STRIKE ANYWHERE MATCH SYNDICATE, LIMITED, 37, WALBROOK, LONDON, E.C.)

We have carefully examined these matches and we find that they are entirely free not only from the ordinary yellow phosphorus but from any kind of phosphorus. Amongst the ingredients which the heads contain are chlorate of potash and sulphur, the energetic chemical action of which is tempered by the presence of another body. It is satisfactory that makers have been stimulated under the pressure of public opinion to prepare a match which will not be injurious to the operatives employed in its manufacture. Further, the matches on ignition do not give rise to injurious phosphorous fumes. We cannot concede that the "nonphoss" match is as satisfactory from the point of view of striking as is the phosphorous match. Although it is true that it strikes anywhere it is not easily ignited and when ignition does occur it is accompanied with some splutter. The match certainly strikes best on the sand-paper rubber. However, we would most heartily encourage the production of such a match as great mischief has been done by the methods of manufacture hitherto adopted which involved the use of phosphorus.

(1) EXTRA STOUT; AND (2) INDIA PALE ALE.

(WHITBREAD AND CO., BRITANNIA-STREET, KING'S CROSS, LONDON, W.C.)

These bottled beers present the undoubted advantage of sparkling with the gas developed in the fermentation of the beer itself and not with added gas. We pointed out in THE LANCET of March 23rd, p. 882, that the sparkling quality of many beers upon the market depended not upon the gas generated in the beer itself by normal fermentation, but upon artificial gas forced into the liquid in the same way as soda water is made. We believe that such carbonated beer is not so wholesome or dietetically so satisfactory as is beer charged with its own natural gas. We have had the opportunity of witnessing the bottling beer process as carried out at Messrs. Whitbread's bottling factory. The beer is bottled at just that time when it will develop sufficient gas, and no more, to make the beverage agreeably sparkling. The result is a beer which is free from the sharp, harsh taste of carbonic acid artificially forced in. In the latter case the beer soon gets flat, while in the former the beer keeps its sparkling qualities for some time, a point which we believe is in favour of the digestible qualities of the beer. The analyses of the two specimens were as follows: extra stout—malt extractives, 7 31 per cent.; mineral matter, 0 35 per cent.; alcohol, by weight 5·44 per cent., by volume 6 78 cent., equal to proof spirit 11·89 per cent.; and proteids, 0·61 per cent. India pale ale—extractives, 3 01 per cent.; mineral matter, 0·21 per cent.; and alcohol, by weight 4 94 per cent., by volume 6 17 per cent., equal to proof spirit 10 81 per cent. The excellent proportion of malt extractives in the stout makes it undoubtedly a nutritious beverage and it is also easy of digestion. Both beers were in fine condition and were free from undue acidity and any objectionable constituents.

ABBEY'S EFFERVESCENT SALT.

(THE ABBEY EFFERVESCENT SALT CO., 144, QUEEN VICTORIA-STREET, LONDON, E.C.)

We have carefully examined this effervescent saline preparation and we find that it is quite free from objectionable ingredients. A feature of the salt is its remarkably uniform granulation, which while tending to preserve its effervescent qualities secures a steady effervescence when it is dissolved in water. The powder thus treated does not bubble or froth inconveniently and so the effervescing solution is comfortable to take. The powder is agreeable in character and of approved composition, and is evidently prepared from pure and refined salts. It is quite free from the contaminations sometimes found in effervescent powders of a similar nature and composition.

New Inventions.

PAGENSTECHER'S CELLULOID THREAD.

THE introduction of this thread is a decided advance in operative surgery, especially in abdominal surgery. The fine thread is the ideal suture for peritoneum as in the operation of gastro-enterostomy; it does not slip, is easily threaded, and it is easy and supple to stitch with. The tensile strength of the thread in proportion to its calibre is astounding, the strength is if anything increased by the process of sterilisation. There is only a slightly appreciable swelling of the thread after boiling it; any water absorbed by it can be withdrawn by preserving the thread in alcohol. Some months of experience with the thread have not given rise to any anxiety or complication. There is every reason to believe that although the thread is not absorbed yet it soon gets organised over and buried with an aseptic burial by the neighbouring tissues. The thicker thread is useful for ligating a large blood-vessel or a pedicle, for instance in the operations of hysterectomy, ovariotomy, and radical cure of hernia. The thread may be boiled many times without undergoing any deterioration and should entirely supersede silk as it is cheaper, more reliable, stronger, and more easily worked with The following method of sterilisation is recommended. From the hank obtained cut suitable lengths of thread and wind them on a glass reel. Boil for 20 minutes. Take the reel out with sterilised forceps and drop it into a wide-mouthed bottle containing 5 per cent. of phenol in methylated spirit There the thread can be preserved indefinitely. The thread may be obtained from Messrs. Reynolds and Branson, Limited, Leeds.

BERTRAM C. STEVENS, M.B., B S. Durh.,
M.R.C.S. Eng., L.R.C P. Lond.

Leeds.

*** It seems to us that the fibre is not celluloid although apparently it contains celluloid, but though smelling strongly of camphor it is not very inflammable.— ED. L.

THE LANCET.

LONDON: SATURDAY, APRIL 20, 1901.

The Port of London.

The doings of the Port of London are always of interest both by virtue of their magnitude and of the importance which attaches to the proper carrying out of the precautionary measures against the introduction of disease. At the present time, when a large number of invalids convalescent from enteric fever are returning from the Cape, and when bubonic plague appears to be spreading in South Africa, it is a matter of great public concern that all practicable measures should be taken to reduce the chances of infection through transports. The importance of this matter is referred to by Dr. W. Collingridge, the medical officer of health of the Port of London, in his last half-yearly report. It appears that the authorities at the War Office were anxious that invalids returning from the Cape should be allowed to pass up the river and to proceed to Woolwich and the Local Government Board were asked to give their sanction to this. As an outcome of this request a conference was held at the Local Government Board Office between representatives of that department, of the Admiralty, of the War Office, and of the Port of London, and as a result it was arranged that in future all transport vessels are to call at Southampton, by which means the infectious sick can be removed to Netley Hospital. The vessel conveying the sick will then be disinfected by the Southampton Port Sanitary Authority who will furnish a certificate to this effect before she proceeds to her destination. These arrangements apparently apply to diseases other than plague, cholera, or yellow fever, cases of which will be dealt with in the usual manner under the Orders of the Local Government Board. It is satisfactory to hear that an amicable arrangement has been arrived at and that the port sanitary authorities will continue to deal with transports as with other vessels. As far as we are aware neither the Admiralty nor the War Office have at their disposal adequate means for dealing with an infected vessel in the manner in which such a vessel is dealt with by our port sanitary authorities, and it is clearly in the interest of the public health that administration with regard to ship-borne disease shall be focussed in the public health department of the country. Were the Admiralty or the War Office to practise quarantine foreign nations might find some difficulty in reconciling the teachings of our country with our practice.

With regard to plague the proceedings taken in the Port of London in the direction of the control or destruction of rats is a matter of consequence, and Dr. Collingridge embraces in his report an interesting and judicial *résumé* of our present knowledge as to the relation of plague in rats to plague in the human species. He also furnishes reports contributed by the several London dock companies setting out what are the actual precautions taken in respect of rats. Vigorous as some of these measures are they do not, as Dr. Collingridge observes, altogether suffice to ensure safety, and he gives an interesting account of experiments made by Dr. Danysz of the Pasteur Institute in the direction of exterminating rats by means of an organism which for rats is pathogenic but for man harmless, the organism in question having been isolated by Dr. Danysz from field-mice suffering from an infectious malady. The steps by which this experimenter accentuated the virulence of the microbe are full of interest and the results of his work are decidedly promising. Perhaps the most remarkable results were those obtained by placing 200 rats in a limited section of one of the Paris sewers. Cultures of the bacillus were distributed in the sewer, and eight days afterwards an epidemic broke out amongst the rats which proved fatal to 80 of them. Half of these were examined and lesions typical of those produced by the bacillus were detected. The remaining 40 which were left in the sewer were eaten by the survivors. At a later date only eight live rats were found, but, unfortunately, these escaped. Apparently the virulence of the organism becomes considerably reduced after two or three passages through the economy of the rat, and hence there are limitations to the destroying power of the virus. It is, however, recommended that repeated distributions of cultures should take place, preferably during the breeding season. Dr. Collingridge has arranged for a supply of the culture with a view to test its applicability, and we shall all watch the results with the greatest interest.

With respect to the condition of the Thames it is discouraging to learn that there were many complaints during the hot weather. Although the Corporation of London has no immediate concern with the treatment of the sewage adopted at Barking and Crossness the condition of the river is obviously matter for the port sanitary authority, seeing that the health of an enormous seafaring population is in question. Dr. Collingridge tells us that the methods adopted are adequate to prevent serious nuisance during the greater part of the year, but during the hot weather something further is needed. During 10 days in July the water from London Bridge to Erith, and more particularly between Greenwich and Crossness, was "very discoloured and offensive." Clearly the effluent is carried up by the spring tides a long distance above the outfalls.

Rhythmic Psycho-neuroses and Morbid Impulses.

Dr. C. H. Hughes of St. Louis, editor of the *Alienist and Neurologist*, in a paper which we publish this week on page 1124, calls attention to certain interesting and medico-legally important forms of mental derangement characterised by a morbid rhythmic activity of the brain and grouped by him under the heading "Autopsychorhythmia," or repetition psycho-neurosis. He refers at the outset to a pathetic story of an accountant who in a state of nervous exhaustion and mental confusion was carried to an asylum pitifully exclaiming, "Once one is two, once one is two," the mistaken calculation having ruined him.

Apparently two factors are concerned in the development f such form of mental derangement—viz., a basis of cereral exhaustion or of feeble will on the one hand, and a hythmic recurrence of irresistible morbid ideas or impulses o action on the other. Some cases manifest themselves nder the forms of imperative ideas of a ludicrous, dangerous, r indecent nature which arise regardless of time or place nd cause the sufferer much trouble and anxiety. French bservers have given to this class of phenomena the apt erm "mental obsession." A special variety of this, known s "blasphematory mania," was noticed long ago by VERGA who described it as a form of mental obsession in which the mental impulses took the form of oaths, blasphemies, or ndecent utterances. The term "coprolalia" has since then been proposed by GILLES DE LA TOURETTE to designate this mpulsive and, as it were, explosive ejaculation of oaths and obscene words. It is not a form of insanity to which the wicked and the depraved alone are prone, for young persons brought up and reared in exemplary surroundings—daughters of clergymen and ladies of good birth and breeding—have been not infrequently known to be subject to this form of mental disorder.

The late Professor CHARCOT regarded these impulses, like he *tics* of the neurasthenic, as closely allied disorders: "The *tic*," he said, "is a disorder that is only in appearance material; it is on the other side a psychical disease, for here are mental as well as bodily tics." A less distressing class of the repetition psycho-neuroses includes echolalia and allied conditions, in which there is an irresistible tendency to imitate and to repeat words and gestures. It must be remembered, however, that the condition of rhythmic repetition of acts and of words and phrases has a certain relation to physiological states. In persons with a fine musical ear tunes and musical cadences once heard will sometimes persistently recur in the mind even to the point of weariness. The overworked student of music is prone to suffer from this trouble, and only rest, recreation, and a tonic treatment will cure it. It is easy to see how overwork and mental overstrain will allow this condition to become a morbid one, and how the resulting cerebral irritation, insomnia, and constitutional disturbance will lead the person into the realm of actual mental aberration. These are the cases which early diagnosis and early treatment could prevent from passing into utter mental breakdown. In the borderland which separates sanity from insanity a whole host of semi-morbid conditions are met with which are characterised by tendencies to morbid impulse and repetition. Many of these have been studied and appropriately named; thus we have arithmomania, a morbid tendency to count letters in a word or objects in a room; the *folie du doute* and the *délire de toucher* of French authors, and the *Grubelsucht* or metaphysical mania of German observers. The subject of this last condition asks questions, propounds problems, and suggests doubts *ad infinitum*. Is he theologically inclined, then he reasons in every conceivable way about the creation, angels, or predestination. Was the world created, or did it come by chance? If created, did GOD do it or did he appoint the angels to do it? And if so, why? In a similar fashion the accountant conceives the idea that his books are inaccurate, he spends hours in seeking for a possible error, is never satisfied that his figures are correct, and is finally obliged to give up work owing to the danger of mental breakdown. The will is primarily feeble in these persons or has become enfeebled by disease, and ideas arising in the mind run their course unchecked. In some patients the morbid impulses towards words and deeds have their starting-point in dream states and run their course in the waking state. This is especially so in alcoholic subjects.

Dr. HUGHES calls attention to a significant group of symptoms which may be the warning of a threatened mental attack—viz., absent-mindedness, abstraction, and a condition which, since its description by the late Dr. W. B. CARPENTER, has been called "mental automaticity." Such symptoms signify little unless they are progressive or indicative of disregard towards the decencies and proprieties of life. If associated with excesses of sexual or alcoholic nature they should always cause suspicion and the mental condition of the patient should then be looked into closely. In some persons inquiry reveals the fact that for years a struggle has been going on between the normal self and morbidly recurring obsessions and impulses. Impulses to acts of the nature of murder, arson, and rape have been known to exist for years and to have been fought against with prayers and struggles. The persistence and recurrence of such internal conflicts eventually produces mental exhaustion; and on a basis of such exhaustion hallucinations and automatic acts may develop. The underlying cerebral condition is twofold—viz., a weakening of the psychical inhibitory functions and an over-action of certain sensorial areas. In every case there is more than a mere motor or kinæsthetic involvement. The disease is therefore a complex one and demands the utmost care and skill in treatment.

Recreative Reading.

THERE will be found in another column a letter from a retired member of the medical profession asking to have the names of good novels recommended to him. The request is one that we have never had made to us before and we should be very embarrassed if we thought that it came within our scope to give him an answer. His statement that he is familiar with certain accepted classics debars the suggestion to him of any of those prose works of imagination which are the chief and peculiar glory of English literature; while the absence of all limitations in his request—of all hint as to the style, the school, and the date that he would prefer—renders it impossible to select for him from the usual grade of popular fiction any group of books that would be especially likely to suit his taste. But while we have been unable to give our correspondent any practical help, he has our best sympathy in his desire to drink in his retirement from a sweet well of enjoyment which he has hitherto left untried; and not only our sympathy but our envy. The hours that he has before him making the acquaintance of LEVER'S and OUIDA'S guardsmen, MARRYAT'S post-captains, BRADDON'S and COLLINS'S villains, AUSTEN'S nubile heroines, and TROLLOPE'S troubled clergy—we omit reference to the accepted classics—will be some of the pleasantest that he has ever spent.

We do not, however, advise medical men to leave all light reading until the time of retirement from active work has come. On the contrary, no man needs recreative reading more than the busy medical practitioner or is more likely to derive from it valuable intellectual distraction. The absorbing character of medical work and the scanty leisure of medical life are alike inimical to the cultivation of tastes and accomplishments which call for prolonged application. Here and there a medical practitioner is an expert musician, a poet and one or two novelists have their places upon the current Medical Register, and several well-known surgeons have shown that it would have been within their power to earn a position as artists had not previous predilections led them to surgery. These men are, however, exceptions to the rule, while they do not necessarily remain constant to their professional career. The rule for medical men is not to find much time for the cultivation of the arts, which makes it particularly valuable to them not to neglect any opportunity which may present itself. And the most obvious opportunity is to use a portion of their scanty leisure in the study of good literature outside purely professional lines. The daily duties of the average practitioner involve little reading, so that he can, if he can make the time, find reading exactly the relief which his monotonous life calls for. The barrister, the clergyman, and, of course, the literary man—callings which make up between them with the medical man what may be termed the learned professions—have constant recourse to books. Books are no change to any of these save to the medical man. And although it is notorious that the *littérateur's* idea of recreation is to read a book, it is equally obvious that for medical reasons he would be much better employed anyhow else, even in playing ping-pong; but to the medical man, especially to the hard-worked general practitioner, books which deal with phases of life outside his daily routine appeal with extraordinary freshness, inasmuch as an opportunity for reading them occurs with such little frequency.

We have no intention of suggesting a choice of recreative reading. The terrible nonsense that was written at the time when certain of our lay contemporaries were discussing the merits of the best 100 books would deter us from making any such attempt, even if we felt that the post of literary adviser to the medical profession were one to which we could aspire, which we do not. The mental attitude and intellectual needs of individuals are as varied as their physical features and cannot be adequately met by any process of arbitrary selection. History, philosophy, poetry, and fiction have each their place in recreative reading and their value cannot be adjudged in accordance with any abstract or artificial standard, but must vary with the intellectual tastes of the reader and with his literary grasp. Many thoughtful men hold that more abiding satisfaction, more true solace from the troubles of the day, can be obtained from the repeated study of some great classic than from the perusal of the ephemeral literature of the day. We think that this is as obvious as it is true, but it does not get over the difficulties that everybody is not agreed as to what is a masterpiece, while everybody does not want to read masterpieces without a break. There is room for the occasional reading of books which, though they are not and never will be classics, give cause for thought or distract the weary mind. The well-read man, the man who is soundly acquainted with great literature, will very generally be able to point out that the good things in any new book are evolved from, derived from, or founded on the good things written by old masters. But the modern way of putting a good thing, by its very modernity, may make the good thing more convincing. To despise a book because it is new is as silly as it is to read nothing but trash because it is new.

Annotations.

"Ne quid nimis.

QUEEN VICTORIA'S NURSES' ENDOWMENT FUND.

THE trustees of Queen Victoria's Nurses' Endowment Fund in a letter to the press appeal very powerfully for an adequate endowment "once for all" of the Fund. Our readers probably know that this Fund originated in the sum of £70,000, the jubilee offering made by English women to Queen Victoria, which was handed over with characteristic benevolence by Her Majesty to "Queen Victoria's Institute for Nurses," the object of which is to train nurses to attend the sick poor in their own homes. Her Majesty took the greatest interest in the work and in the nurses who were trained in the institute. The trustees tell us that there are now 900 Queen's nurses nursing the poor in their own homes in all parts of the United Kingdom, and if only sufficient funds were forthcoming no town or district would be without a nurse. The memory of the Queen is secured in many ways, but in none more appropriately or benevolently than by this Fund, the object of which expresses that element of human tenderness which has endeared her to her own people and to all other peoples in the world. The trustees are a thoroughly representative body and may be trusted to see that no distinctions of creed shall interfere with the help offered by the society to those whose poverty and sickness make them fit objects for its benefits. They tell us that the nurses will have to be multiplied threefold before the work of the Fund is complete. We heartily commend the appeal. Nothing emphasises the kindliness of Queen Victoria's nature more than the foundation of this Fund, and nothing can honour her memory more than a generous response to the trustees. Subscriptions may be sent to Mr. Howard Morley, honorary treasurer Queen's Nurses' Endowment Fund, 64, Cannon-street, E.C.

SWEETS SPARKLING WITH GLASS.

THE production of modern sweets is undoubtedly a fine art judging from the innumerable varieties made and the countless ways in vogue of making them attractive. At one time the most deplorable practice prevailed of employing such poisonous substances as chromium, lead, copper, or even mercury and arsenic, as colouring agents in sweets. Mainly, however, owing to the disclosures of THE LANCET Analytical Sanitary Commission in 1854, the use of such objectionable colouring agents became happily obsolete, and, speaking generally, modern confectionery is now pure. According to our laboratory experience of recent years we have not found any objectionable ingredients of this character in sweets. True, the colouring agent is often an aniline dye, but so great is the tinctorial power of such dyes that it is probable that several pounds of the sweets would contain at most a few grains of the dye and then the dye may be erfectly harmless. It is satisfactory to state that many sweets are coloured with vegetable colouring, such as the chlorophyll of spinach, known as spinach-green, which is now made in large quantities for many commercial purposes. So far this account of modern sweets is satisfactory, but a somewhat unexpected and most objectionable method of manipulating sweets has just been brought to our notice. Sweets are made to glitter by means of splinters of glass, so that the sweet has the appearance of sparkling crystal sugar. We have in our laboratory at the time of writing some specimens of even high-class confectionery, said to be of French make, which all contain a liberal sprinkling of glass splinters. When the sweet is dissolved in warm water the splinters tumble to the bottom of the fluid into a miniature heap of broken glass. The splinters present both sharp points and sharp edges which are eminently calculated to cause an injury to the walls of the digestive canal. It is difficult to imagine a more powerful mechanical irritant than jags of glass which might easily cause laceration and hæmorrhage, not to mention other disturbances such as are set up by foreign bodies less jagged than glass in the alimentary canal. The sweets to which we have referred were sent to us by a correspondent with a request for analysis, and he relates that these sweets were partaken of by two little children who shortly afterwards suffered from severe abdominal pain, in the one case in the region of the appendix. The pain persisted for several days. The effect of sharp glassy particles lodging in the appendix could, of course, be easily disastrous. Our analysis enables us to say most positively that these glittering particles are glass. They are quite unchanged in boiling water or in boiling acids and melt into beads at a red heat. On analysis we obtained silica, lime, soda, and a little lead, which are the constituents of common glass. From their appearance on the sweets the flakes might easily be taken for gelatin or mica. The glass is probably prepared by crushing glass bubbles. It is said that the practice of employing glass in this way for decorating confectionery is extensively resorted to, especially by French makers. The sale of such sweets should render the seller liable to heavy penalties or, better, to incarceration, for broken glass may act exactly as an irritant poison and is most injurious to health. We trust that the Local Government Board will give attention to this matter in order that the local authorities throughout the country may by means of the machinery of the Food and Drugs Act institute practical inquiries and stop the sale of such dangerous articles. It is probable that the practice is adopted in order to compensate for the absence of any crystalline appearance in glucose which is now so much used as a substitute for cane sugar in confectionery. In such a case the practice is not only monstrous because it is likely to lead to serious injury to health, but because it is a fraud also. Sanded sugar was bad enough, but to put glass splinters in sweets is diabolical.

THE BRITISH SCHOOL IN ROME.

"AN Italian Contributor," under date, Rome, April 12th, writes: "Medicine with her sister faculties of law and divinity was duly represented in the brilliant gathering assembled yesterday in the Palazzo Odescalchi to launch the British school and, metaphorically speaking, to break a flask of 'bottled sunshine' over its bows. Lord Currie, His Majesty's Ambassador at the Court of the Quirinal, presided and the company included the Archbishop of York, the heads of the German, French, Austrian, and American archæological schools respectively, Mr. H. F. Pelham, President of Trinity College, Oxford, and Camden Professor of Ancient History in the University of Oxford; the Cavaliere Lanciani, Professor of Roman Topography at the Sapienza; the Commendatore Boni, Excavator-in-Chief of the Forum Romanum; the Contessa Lovatelli-Caetani, the accomplished archæologist representing the Royal Academy of the Lincei; and a numerous attendance of graduates from the Universities of Oxford, Cambridge, Edinburgh, Aberdeen, and St. Andrews. Lord Currie briefly indicated the origin and aim of the school, and paid a well-merited and loudly applauded tribute of praise to Professor Pelham, the chief promoter of the school and chairman of the Executive Committee. Professor Pelham followed with a happy reference to the importance, the interest, and the fascination of the studies now for the first time accessible to the British student in a duly constituted and equipped British school, and after him came Professor Eugen Petersen, first secretary of the Roman Branch of the Deutsches Archäologisches Institut, and the Abbé Duchesne of the École Française, to extend the right hand of fellowship to their young rival. The speeches, all of them happy in tone and cordial in expression, had their appropriate sequel in the conversazione which followed as the company dispersed through the rooms or lingered over the well-provided buffet. Particularly gratifying to the medical contingent was the library with its assortment of books appealing specially to the student of the healing art in its historical aspects—Hippocrates being represented in the great editions of Littré and Ermerins and Celsus, in those of Milligan, Des Etangs and De Renzi, supplemented by Matthioli's fine commentary on Dioscorides and by De Renzi's Collectio Salernitana in five handsome octavos. Medical archæology, indeed, stimulated and aided by the British schools at Athens and in Rome, may now look forward to rich accessions to its treasure-trove, the methodical arrangement of which at either school and its adequate description by the local expert cannot but add interest and attraction to many a 'Physician's Holiday.' The names of men of light and leading in the profession—Arbuthnot, Mead, Heberden, and Gregory, and the more recent ones of J. Y. Simpson, Francis Adams, B. W. Richardson, and Henry Acland—recur to the mind as those of ardent students of the medical past who would have envied their latter-day successors the opportunities and facilities open to them, and whose spirits may well be imagined to look down approvingly on the new adjunct to their favourite studies so auspiciously inaugurated in the British school in Rome."

DOWLING *v.* DODS.

IN another column will be found an appeal signed by various well-known members of our profession, asking medical men to assist Mr Louis Ferdinand Dods to pay the heavy costs to which he was put in defending himself in the action for libel brought against him by Miss Agnes Dowling. It may be remembered that in the original action a jury required Mr. Dods to pay £100 damages to Miss Dowling, but on appeal judgment was set aside and a new judgment was given for Mr Dods with costs, the later result being obviously in accordance with the justice of the case. These costs Mr. Dods has been unable to recover from Miss Dowling, and he finds himself liable for a sum of over £400 We have already laid before our readers details of the case[1] but we may shortly recapitulate them here. Mr. Dods, having the behaviour of Miss Dowling brought to his attention, wrote a letter to the relieving officer of the Paddington district to the effect that to the best of his knowledge and belief Miss Dowling was of unsound mind. The relieving officer revealed the contents of the letter and Miss Dowling brought an action for libel against Mr. Dods. At the trial Mr. Dods's letter was held to be privileged, but the jury found evidence of malice and of want of reasonable care on his part. They also found that he had not spoken correctly in saying that the plaintiff was of unsound mind and that it was not true that she would be a source of danger as a dispenser, but that it was true that she had hallucinations. They gave their verdict for Miss Dowling, awarding her £100 as damages. Miss Dowling certainly had hallucinations, and hallucinations of a pronounced sort. Thus she charged a lady with taking her soul from her by diabolical practices, and she admitted in court that being in Ireland she distinctly heard the voice of a Dr. Groves, who was at the moment in the Isle of Wight. How a dispenser liable to such flights of imagination could be other than a source of danger to those for whom she dispensed we cannot imagine, and it seemed amazing to us that a medical man should be fined for taking steps in the exercise of his profession to prevent an unfortunate sufferer from damaging herself and the public. The second trial reinstated Mr. Dods in public opinion, showing the jury to have taken a hasty view, but, unfortunately, he still remains out of pocket. He was, of course, in the first instance fighting for his own hand, but he has really maintained battle for the whole of the medical profession in a disagreeable situation where, in the present state of the law, any of our readers may find themselves to-morrow. Therefore we ask our readers to give to the appeal published on page 1161 of this issue their best attention. Times are hard and the claims on the purses of the profession are heavy. But Mr. Dods has been severely fined for doing what he conceived to be his public duty and professional fraternity should see that his loss is made as light as possible.

---

[1] THE LANCET, June 23rd (p 1812) and Nov. 10th (p. 1352), 1900.

BICYCLING IN LONDON.

FEW people, probably, except those whose work lies in hospitals realise what a large number of accidents occur daily through the use of bicycles in the streets of London. The daily press has knowledge, generally speaking, only of fatal accidents with their subsequent inquests, and the numerous cases of less serious injury escape the publicity of those papers even whose fortune so largely lies in the misfortune of others, if we may judge by the prominence which their columns give to anything of the nature of accident or tragedy. This lack of information on the part of the daily paper as regards bicycle mishaps provides a rare instance in which the absence of publicity may be deplored. In our opinion the bicycle in London is too freely used for the common welfare, and if the public generally were more fully alive to the accidents to which it gives rise its prevalence in metropolitan thoroughfares would probably diminish. We are second to none in recognising the benefits of most forms of athletic exercise and in appreciating the bicycle as placing a convenient means of muscular exertion before those who without it would be often physically idle. The medical profession, as a whole, has blessed the wheel with a wide approval, and the general opinion has had our support before now, but we maintain that there is a wide difference between bicycling for health and pleasure and riding amidst the kaleidoscopic probabilities of collision in a crowded London thoroughfare. In the first place, the value of the exercise itself is largely discounted by the fact that to ride at all fast is simply to court disaster. Even without the chance of accident from tributary thoroughfares, the traffic of a main route by its intricate packing and sudden halts, by its erratic cabs suddenly turned in obedience to a hurried whistle, by its swaying 'buses stopped at any moment, by its flurried ladies crossing at a wrong time, by its children, and by its dogs, places the bicyclist who rides fast in the imminent risk of a "spill" or a collision in which he or his machine or both will be lucky to escape with a mere fracture. The man or woman who rides fast in London is not likely to be troubled with "nerves," but there is another side to the question which affects the careful rider. He, or more especially she, is in a constant state of nervous tension. Her eyes must comprehend all that is before and on either side of her and her ears must be alive to everything behind. Her brain reels with a constant succession of hurried impressions, and through it all she must keep calm control of every muscle or her equilibrium will reel too. The concentration thus demanded of the London bicyclist has even been the very reason of its recommendation as a "nerve-tonic," and we know an enthusiastic physician who went so far as to declare that to get the fullest effect a person should ride on the wrong side of the road! The chief effect likely to be thus obtained is a short rest in the accident ward of a hospital. For young men accustomed to the prompt actions of athletic games, bicycling amidst the traffic of London may afford a sport or an exercise the risks of which are only enough to make it pleasantly exciting. For older people and for all women we believe the risks outweigh the advantages. Moreover, there are conditions under which no one should run risks. When the roads are greasy, when rain has fallen enough to make wood and asphalt sticky without making them sloppy, anyone who bicycles amidst traffic, unless necessity compels him to, takes an unwarrantable risk. He will often be so placed that the least slip puts his wheel under that of some heavy vehicle and as he leaps off his saddle into the slippery road it is mere luck if he does not fall beneath another wheel. To those who would ride in London when the roads are not properly dry, and to women who would shop on bicycles, we unhesitatingly proffer *Mr. Punch's* historic advice, "Don't." Let the Londoner who wishes to bicycle rise early and do so before the traffic of the day has begun or let him wheel his machine to one of the parks. In either case he will take exercise without risk and will breathe fresh, unpolluted air not to be obtained from the dust-laden atmosphere of crowded thoroughfares.

A CASE OF TOTAL EXTIRPATION OF THE STOMACH.

IN the *Deutsche Medicinische Wochenschrift* of April 11th Dr. A. von Bardeleben of Bochum in Westphalia publishes an account of the case of a woman, 52 years of age, whose stomach he removed in the Augusta Hospital in that town on August 28th, 1900, and whom he showed at a meeting of the Surgical Association of the Lower Rhine and Westphalia held in Bochum on Dec. 8th following. For a year previously to the operation she had suffered from pain in the stomach accompanied by nausea and eructation but without vomiting. Her appetite failed entirely, she lost 40 lb. in weight, and could only hold herself up with a great effort. A moveable tumour of the size of a fist could be felt to the left of the umbilicus. On opening the abdomen the whole anterior wall of the stomach from the cardia to the pylorus was found to be greatly thickened and densely infiltrated. The œsophagus was thereupon divided below a temporary ligature placed close to the diaphragm and the stomach, inclusive of both cardia and pylorus, was removed with detachment (*Abtrennung*) of the great and small omentum. The orifice of the duodenum was sutured, and the end of the œsophagus was attached laterally to the small intestine some distance lower down. The operation lasted 75 minutes, including disinfection, 20 grammes (three-quarters of an ounce) of chloroform being used. The subsequent course of the case was quite uneventful. On the evening of the day of the operation the patient drank a glass of claret, and all rectal alimentation was discontinued after the third day. The food taken thereafter was limited to eggs and soup to which peptonised meat and hydrochloric acid were added. In the second week this was supplemented by potato soup, grated ham, and the like, and the patient got up on the fourteenth day, after which her appetite increased. The first motion of the bowels, which was passed on the fifth day, was quite free from biliary colouring matter, but the second and all subsequent motions were of the normal colour. After leaving bed the patient's weight increased from 67 lb. to 84 lb. The orifices of the stomach after removal included obvious portions of the œsophagus and the duodenum. Microscopical examination showed the tumour to be colloid cancer (*Gallert-carcinom*). Dr. von Bardeleben appends a list of surgeons who have recorded cases of total extirpation of the stomach, the names being as follows: Hemmeter, Brigham, Nolle, Faure, Schlatter, Panchel, Leersum and Rotgans, de Carvalho, and Boeckel. With regard to the case of Professor Schlatter he quotes THE LANCET of Nov. 19th, 1898, page 1314, and with regard to that of Dr. Vieira de Carvalho THE LANCET of Sept. 15th, 1900, page 798.

A WATER COMPANY DIRECTOR ON CISTERNS.

THE last half-yearly meeting of the shareholders of the East London Waterworks Company was held on April 4th, when Mr. Frederick Tendron, chairman of the Grand Junction Waterworks Company, expressed his views on cisterns, of which he advocated the use. According to the *Times* report of his speech, "there ought," he maintained, "to be a moderate-sized cistern in every house, although *cistern water ought never to be drunk.*" (The italics are ours.) "If there was one thing more than another that should be insisted upon," he continued, "it was that in every house a tap shall be fitted on the rising main so that the water which was hourly being renewed should be drunk fresh from the main." As a matter of fact, unfortunately, both the Lambeth and the East London companies have at certain periods during the last few years not hourly renewed the water in their mains. Let us suppose for a moment, for the sake of argument, that Mr. Tendron's statement was strictly accurate. If the water were hourly renewed in the mains, and if, moreover, water from a cistern ought never to be drunk, on what reasonable ground does Mr. Tendron recommend the reinstatement of the domestic cistern?

THE PLAGUE IN SOUTH AFRICA.

WAR and pestilence have frequently been contemporaneous, only as a rule the latter is a consequence of the former. The present epidemic in South Africa, however, appears to be unconnected, at any rate directly, with the war. In Cape Town the usual difficulties have to be faced which are always present in the case of a town containing a population of varied nationalities, races, and creeds. In such a case, religious and other scruples make the work of isolation and other measures necessary for the public safety hard to carry out. With regard to the disinfection and cleansing of houses Dr. Gregory, the chief medical officer, has issued explicit instructions to his staff. Yards, drains, fowl-sheds, and other outbuildings are to be drenched with a solution of corrosive sublimate. Houses are to be first closed and then fumigated with formalin. After remaining 12 hours they are to be aired and sunned as far as possible. All articles in the house are to be divided into three classes: (1) those that can be disinfected in the house; (2) those that must be burned; and (3) those that have to be sent to the steam disinfector. Furniture and hardware articles are to be disinfected with a solution of corrosive sublimate or with another disinfecting fluid which does not spoil metal articles; walls are to be sprayed with the sublimate solution and stripped. Rat-runs are to be traced and fumigated, while all rats met with are to be killed and their bodies burned. The medical officer in charge is to report upon the general sanitary condition of the house as regards drainage and the like, and is also, at the conclusion of operations, to give a certificate to the effect that the house has been properly disinfected. Concealment of cases, as in India, is apparently the great difficulty which the authorities have to contend with. As regards the progress of the disease the latest telegrams state that the matron at the Cape Town plague hospital has died from plague and that on April 17th there were 16 fresh cases recorded.

THE FACTORY GIRLS' COUNTRY HOLIDAY FUND.

ALL rightly applied efforts to promote the health of the poor toilers of our great metropolis deserve hearty support, and the Factory Girls' Country Holiday Fund, of which the Princess Christian is a patron, is the outcome of one of these efforts. Apart from the plea of humanity, the fact that many of the girls who benefit by this fund are engaged in the preparation of food should induce everyone to support the fund, for it is to the benefit of the community as a whole that food should be prepared and stored for future use by healthy operatives. To show the rapid increase of the work done by this institution we may mention that in 1888, when the first report was issued, 39 women and girls received the benefit of a country holiday, while last year 2680 women and girls were sent away from the smoke and grime of their surroundings. This number, large as it is, must represent but a small part of London's poor working girls, and even many of these could not have been sent away had it not been for the kindness of a member of the executive committee who in the middle of last summer advanced £300 when the funds became exhausted. As arrangements have to be made with the cottagers who house these girls some time beforehand it is most desirable that subscriptions should be sent to the honorary treasurer, St. Peter's Rectory, Saffron Hill, London, E.C., early in the spring. That the girls themselves appreciate the efforts made on their behalf can be seen by the letters expressive of heartfelt gratitude which are printed in the report.

THE CORONERSHIP OF THE CITY OF LONDON.

IT is announced that the coroner for the City of London, Mr. Langham, is about to retire after many years' faithful service. Mr. Langham has discharged his onerous duties with conspicuous ability, and we do not fear that we shall be suspected of disparaging his service when we hope that his successor will be a medical man. We have over and over again pleaded in these columns for the principle that the office of coroner should be held by a medical man, but in face of the near approach of this new appointment it will do no harm to recapitulate some of the arguments why a medical man should be preferred as coroner. The office of a coroner is, in the first instance, to decide whether an inquest is necessary—that is to say, he must decide whether a death is natural or unnatural, whether the cause of a sudden death is or is not unknown, and whether a death has or has not been a violent one. These questions can only be answered satisfactorily by an experienced medical practitioner—a most important point. For useless inquests are a grievous infliction upon those who have to act as jurors, while they cause much unnecessary pain to the bereaved relatives. It is argued on behalf of the theory that a coroner should be a lawyer that the coroner has not only to receive evidence but to sift it and to weigh it. But this argument applies equally to the jury and no one has ever proposed that the jury should be composed of lawyers. Moreover, every medical man has daily in the exercise of his profession to weigh evidence received from his patients, from the patients' friends, and from the witness of his own eyes and ears. The viewing of the body is a form when conducted by a lawyer, but when conducted by a medical man the appearance of the corpse may tell him much in support of or against the evidence which will shortly be given before him. To the medical coroner the evidence of friends, physicians, nurses, and eye-witnesses as to injuries or previous illnesses will have a very real meaning, and, in addition, its relation to any undisputed facts before the court will be clear to him in a way that it cannot be clear to persons ignorant of medicine. In a coroner's court the cause of death is not, as in other courts, one issue of a suit—it is the only issue, and the coroner should be a man able to weigh medical evidence and to direct the jury. The value of medical evidence is only completely clear to a man who has had a medical education. We therefore hope that the electors in whose hands the important appointment of the coronership of the City of London rests will appoint as coroner a member of the medical profession.

M. LOUBET AS A SANITARY REFORMER.

SANITARY reformers have found a useful ally in M. Loubet, President of the French Republic. With all the courtesy necessary under the circumstances he has not hesitated to administer a well-merited reproach to the municipality of Toulon. Nothing can be more revolting and scandalous than the insalubrious condition of this town, which still serves as an open door to all the epidemics that can be imported from abroad, while within its walls typhoid fever is in an endemic condition. There are no sewers and no system of drainage; some houses have portable pails, some have cesspools, but a great many houses, even in the centre of the town, have nothing at all, and the inhabitants are content to throw out their night-soil into the streets. On his return from visiting the Italian squadron M. Loubet was entertained by the Municipal Council of Toulon. The Mayor, in his speech of welcome, admitted that for 50 years the necessity of sanitary measures had been recognised, and he asked that the President should use his influence so that something might at last be done. The Mayor, however, did not say anything about a drainage scheme which obviously is the first of necessities. He only spoke of embellishments and of building new and broader streets—schemes that obviously lend themselves more readily to jobbery than the creation of a drainage system. While pointing out that he had no constitutional right to take any initiative in such matters, M. Loubet said that on the strength of his white hair and his services rendered to France and to the Republic for more than a quarter of a century he had authority enough to recommend to the Government that the desire for sanitary reform should be realised and that the Ministers would not dishonour his recommendation. He further urged that the town could well afford to make the effort; that too strict a policy of saving would only cause greater difficulties in the future; and that they ought to put their hands into their pockets and the Government would help them in carrying out a well-matured scheme. By those who are unacquainted with the local history of Toulon the sting of these remarks will not be perceived, but those who are better informed will naturally inquire who is responsible for the present insalubrious condition of Toulon if it is not the present mayor and municipality. Many years ago a scheme for the drainage of Toulon was prepared. This scheme was sanctioned by the Consultative Committee of Hygiene for France, of which Dr. Brouardel is president, and also by the General Council of the Ponts et Chaussées. These two committees are attached to the Ministry of the Interior and represent in France what the Medical and Engineering Departments of the Local Government Board represent in England. Further, the scheme was also approved by a mixed committee representing the Ministries of War, of Marine, of Public Works, and of the Interior. Finally, and from the legislative and administrative point of view, the scheme was confirmed by the Council of State. But at this latter stage a most extraordinary event occurred. According to the law such schemes must be laid before the public of the town concerned and any inhabitant has the right to attend and to bear witness either against, or in favour of, the project. It was now found that the *dossier* containing this testimony had disappeared. It had been lost or stolen from the archives—an incident quite worthy of the Dreyfus case. The Government, tied down by the letter of the law, then insisted that, as a mere matter of form, another public inquiry should be held. This was done, but in the interval a new municipal council had come into power which in the preparing of the scheme had had no finger in the pie. The result of the public inquiry was the same as in the first instance. Out of a population of 104,000, some 1400 persons, including women and servants whipped up for the occasion, had spoken against the proposal. That the scheme is still approved by the great majority of the inhabitants of the town is proved by the recent election of M. Ferrera as representative of Toulon in the Parliament. M. Ferrera was mayor of the town at the time the scheme was accepted, and at the recent parliamentary election the carrying out of the scheme was the first plank in his programme of local reforms. Nevertheless, the present municipality made a pretext of the second inquiry and declared that, in the presence of the results of this inquiry, they would not carry out the project. The contractors who had been engaged for the works are now suing the town. Nine years have been expended over this one scheme. It has received the highest governmental and technical sanction; but because it did not originate with the present municipal majority, all this work, the negotiations, technical reports, &c., which have absorbed so much time, money, and energy are to be destroyed and lost But for these party intrigues Toulon would to-day have possessed a suitable system of drainage. The last two cholera epidemics first made their appearance at Toulon and Marseilles; the latter town has now a general system of drainage. To-day Europe is more or less menaced with the advent of plague, and Toulon is in as bad a condition as it was during the last cholera epidemic. Well might M. Loubet urge the necessity of immediate action, but the bringing forward of a new scheme would mean years of delay.

HÆMORRHAGIC TYPHOID FEVER.

HÆMORRHAGIC typhoid fever—that is, typhoid fever accompanied by generalised hæmorrhages into the skin, mucous membranes, and serous cavities—is rare. The *American Journal of the Medical Sciences* for March contains an important paper on this subject by Dr. A. E. Esbner and Dr. T. H. Weisenberg. In hæmorrhagic typhoid fever hæmorrhage first takes place from the nose and then from the gums. Next petechiæ appear in the skin among the "spots," which become hæmorrhagic only in part, if at all. In severe cases extensive deep-seated extravasations take place into the subcutaneous tissue. In some cases meningeal or cerebral hæmorrhage occurs. There is usually melæna which is sometimes fatal. Hæmoptysis is the least common form of hæmorrhage. The earlier and the more extensive the hæmorrhage the worse the prognosis. The writers report the two following cases. A man, aged 39 years, a heavy drinker, was admitted to hospital delirious on what appeared to be the twenty-second day of his illness. He looked stupid, his tongue was brown and fissured, and sordes were present. The temperature was 103° F. The right iliac fossa was tender. On the chest and abdomen was a rose-coloured maculo-papular rash which disappeared on pressure. The urine contained albumin and blood. The Widal reaction was positive. On the sixth day after admission there appeared on the legs a *symmetrical rose-red* eruption consisting of elevated patches one-eighth of an inch in diameter which did not disappear on pressure. At the same time bluish blotches, from one-eighth to one-quarter of an inch in diameter, which did not disappear on pressure, appeared on the upper chest and shoulders. There were hæmaturia and enuresis. Later in the day intestinal hæmorrhage occurred three times and the hæmorrhagic eruption extended all over the body, the spots being bluish and varying from three-quarters of an inch to one and a half inches in diameter. A hæmorrhage took place into the left cornea. The patient died comatose on the following day. The necropsy showed much blood in the peritoneal cavity, and hæmorrhages in the peritoneum covering of all the abdominal viscera. There were also hæmorrhages into the substance of the latter. The pleural and pericardial sacs contained blood. The bladder contained an enormous clot. In the ileum were five ulcers in various stages. In the second case a man aged 28 years, and addicted to alcohol, was admitted to hospital delirious. The history was that he had been ill for a week. The face was dull and expressionless and the tongue was dry and furred. The urine contained albumin but no casts. The pulse was rapid, weak, and dicrotic, and the temperature was 103° F. A rose-coloured maculo-papular eruption, which disappeared on pressure, appeared. Nervous symptoms became pronounced and carphology and subsultus occurred. The Widal reaction was positive. On the fifth day after admission the tongue was dry, brown, and fissured, and there were sordes. The conjunctivæ were icteric. On the sixth day a dark rusty-red papular eruption, which did not disappear on pressure, appeared on the chest and abdomen. The spots averaged one-eighth of an inch in diameter. Next day the limbs were involved. A peculiar offensive odour was present. Kernig's sign could be elicited. Divergent strabismus and retraction of the head appeared and the patient was extremely restless and exhibited carphology and subsultus. The urine contained albumin and granular and bloody casts. He became comatose and died on the ninth day. The necropsy showed typical typhoid lesions—ulcers ot the ileum and splenic enlargement. The brain and spinal cord showed no abnormality except roughening of the membranes covering the inferior aspect of the cerebellum. The fact that in both these cases of an exceedingly rare complication of typhoid fever the patients were addicted to alcohol *seems to have had no significance for the* writers, but it seems to us of importance, for alcoholism is recognised as a cause of purpura by French writers, though apparently not by American. Typhoid fever *per se* is no doubt capable of producing purpura, but that the alcoholism was a contributory cause in these cases seems probable.

UNQUALIFIED PRACTICE AND DEATH REGISTRATION.

IN order to prevent the danger to the public resulting from medical practice by unqualified persons, and owing to their attention being called to the prevalence of such practice in the urban district of Spennymoor in their county, the County Council of Durham recently made certain representations to the Registrar-General and suggested to him that he should instruct the district registrars of births and deaths to report to the coroners all cases of death not certified by a qualified medical practitioner, so that the coroners might exercise their own discretion as to whether an inquest should be held or not. This after some correspondence the Registrar-General consented to do in respect of the Spennymoor district only on Dec. 1st, 1900, but, strange to say, on Feb. 13th, less than three months later, before the success of the change could be estimated, and without further *reference to the county council, the Registrar-General took* upon himself the responsibility of revoking his own decision and assigned as the cause of his doing so that the delay occasioned in registration caused inconvenience and that no commensurate good had been effected. At a meeting of the county council held subsequently an alderman of the council, who apparently differed from the majority of his fellows in the enlightened view adopted by them, admitted that he and Mr. J. M. Paulton, the Member of Parliament for the division, had interested themselves in the matter, and the influence brought to bear by the Member of Parliament and the alderman no doubt contributed to the rescission by the Registrar-General of his recently issued instruction. We cannot congratulate the official, the Member of Parliament, or the alderman. The last-named, in his speech to the council to which we have referred, as reported in the *Durham County Chronicle* of March 15th, revealed even more interest in the prosperity of the persons practising without qualifications than in the convenience of the miners and others to whom he also referred, while the report of the county medical officer of health, made in last July, is in our view conclusive as to the dangers resulting in the Spennymoor district from the popularity of a certain unqualified person or of certain unqualified persons practising there. In one paragraph it says: "In the urban district of Spennymoor the number of deaths last year which were uncertified as the result of such practice was 77, or nearly 20 per cent of the total deaths, and during the first half of this year these deaths numbered 39, or 25·5 per cent. of the total deaths. During the past quarter there have been two deaths from enteric fever and one from scarlet fever which were uncertified owing to the attendance of an unqualified practitioner, and in none of these infectious cases was any intimation given to the medical officer of health of their existence, and consequently no precautions could be taken to prevent the spread of the disease." We are of opinion that such a state of affairs as that disclosed is alone sufficient to show that *every step* that can lawfully be taken should be taken to compel the production of a certificate of death from a qualified practitioner, and that failing the production of such certificate the coroner should be charged to inquire into the cause of death and to hold an inquest where the cause of death is not absolutely clear or otherwise demands it.

"HAMLET" IN DUMB SHOW.

THE Adult Deaf and Dumb *Institute in Manchester does* very useful work in keeping up a link of association and interest among deaf-mutes scattered over a large area. Some travel great distances to take part in a reunion in Manchester that has now become an annual event. This year it took place on April 6th, and some of the visitors were from Birmingham and others from Scotland At the Hulme Town Hall there was a tea-party in the evening—they are very popular entertainments among some sections of the community in the north—followed by a performance of *Hamlet* by deaf-mutes. Probably the feeling for dramatic representation is as strong in them as in others, but to those who can hear and speak it is difficult to imagine that it can be fully satisfied by signs and gestures, more especially when they are trammelled with the rapid and complicated movements of the finger language. The performance was, however, a great success. Last year the same "actors" gave *Romeo and Juliet*, so that the success was not altogether due to novelty. "The dressing of the play was effective, the scenery was good, and there was spirit in the acting," and "the audience, judged by their attention, felt a real concern in the development and the incidents of the play." It is pleasant to know how cheerfully and successfully these poor folks struggle against the limitations brought about by their affliction, but for all that this silent *Hamlet* must have seemed to the visitor who could hear and speak a pathetic spectacle.

THE JACKSONIAN PRIZE.

THE Jacksonian Prize of the Royal College of Surgeons of England has been awarded by the council of the College to Mr. McAdam Eccles, M.S. Lond., F.R.C.S. Eng., for his dissertation on "The Pathology, Diagnosis, and Treatment of the Diseases caused by and connected with Imperfect Descent of the Testicle."

PUERPERAL INSANITY.

DR. ARTHUR C. JELLY of Boston has published in the Boston *Medical and Surgical Journal* of March 21st an important article on puerperal insanity based upon the medical records of 250 cases of puerperal mental disturbance observed during the years 1872–1900. After referring to the great anxiety and suffering which are caused by puerperal insanity when a young mother becomes suddenly maniacal after the birth of her first child and requires to be sent to an asylum he directs attention to the possibility of prevention. Of the 250 cases referred to above as suffering from puerperal mental disturbance, in 200 the disorder was sufficiently grave to constitute insanity and to require asylum treatment. Cases of the insanity of pregnancy or of lactation were not included, the term puerperal insanity being, somewhat artificially, restricted to those who became insane within six weeks after childbirth. From an etiological point of view two distinct groups were recognised. In the first group the causes were septic infection and exhaustion, complicated in some cases with auto-intoxication. In the second group a psychopathic predisposition existed and the ordinary stresses of the puerperal state were sufficient to cause it to manifest itself in the form of insanity; the puerperal state opened the door and thus the psychosis was, as described by Kraepelin, liberated (*ausgelöst*). Insanity is said to occur once in 460 deliveries. In asylums for the insane from 7 to 9 per cent. of all the female admissions are cases of puerperal insanity. The insanities of pregnancy and of lactation claim each about one-half of the number of victims of puerperal insanity. Dr. Jelly finds a history of insanity, epilepsy, or cerebral disease in one-third of all his cases. Alcoholism also plays an important part, whether it is present as a hereditary taint or as a personally acquired vice. Some patients are liable during the pains and sufferings of childbirth to suffer from suddenly-developed delirious troubles, but these rapidly pass away when delivery has taken place. In such cases a predisposition to epilepsy or profound hysteria often exists in the background (Kraepelin). Illegitimacy is a predisposing cause of puerperal insanity, the latter being twice as common after illegitimate as compared with legitimate births. Cases of puerperal insanity of septic origin have shown a tendency to decline in the last three decades owing to the stricter and wider adoption of antiseptic principles. Thus in the Philadelphia Maternity Hospital 99 cases of puerperal insanity of septic origin were admitted from 1867 to 1877, while from 1887 to 1897 the numbers had fallen to 20, "the latter period being marked by the introduction of stricter antiseptic measures in obstetric practice in Philadelphia." In Boston there has been a decrease in the ratio of puerperal to total labour cases, it being 6 4 per cent. in 1872 to 1880, 4 6 per cent. in 1880 to 1890, and 3·7 per cent. in 1890 to 1900. The more acute septic cases are of short duration and end in death. Others improve after removal of the sources of sepsis, but complete recovery occurs in only a few. The average duration of puerperal insanity is eight months. In some cases where there is marked cerebral exhaustion the patients live only a few days and where recovery takes place the process is slower than in septic cases. Of Dr. Jelly's 200 cases of puerperal insanity 30 had had more than one attack. "One woman was admitted to a hospital for the insane in 1870 with her first attack and in 1899 in her seventeenth attack." In 20 patients some form of mental defect or disorder had existed before pregnancy, thus, one had general paralysis, three epilepsy, three imbecility, three dementia præcox, five delusional insanity, and five secondary dementia. The prognosis as to recovery from a first attack was good (from 75 to 80 per cent.), but the tendency to recurrence was strong and the prognosis was bad after a second or third attack. Treatment consisted in keeping the bowels open, daily catheterisation of the bladder, rest with abundant good food, alcohol and hypnotics in moderate amount so as to secure sleep, and careful guarding against suicide. Home treatment was seldom satisfactory.

SOOT AND TERRESTRIAL AND COSMIC DUST.

IF complexity of composition frees a substance from reproach at all that substance should be soot, for recent micro-spectroscopic analyses have shown that it contains an extraordinary number of metallic elements. Thus chimney soot was found to contain, besides iron and calcium, nickel, manganese, copper, and silver. The soot from laundries seems to contain more elements than that from the kitchen or bedroom chimney, doubtless on account of the more complete combustion of the fuel in the laundry fire. Flue dust, besides containing the more or less common metals such as lead, silver, and copper, contains also nickel and manganese and even rubidium, gallium, indium, and thallium. Gallium appears to occur in all kinds of dusts and soots. Some dusts are clearly of terrestrial origin while others are undoubtedly of cosmic origin. Nickel occurs both in the dust from the clouds (or the dirt in the rain) and in soot, so that its presence in the former is not necessarily an indication of its cosmic origin. The dust which fell upon the earth in November, 1897, yielded a deposit identical with meteoric dust and was magnetic. The dust examined fell on a perfectly calm fine night and there was no rain for upwards of 24 hours. Its composition was totally unlike that of volcanic dust and flue dust from various industrial processes. It was therefore of meteoric origin. It has not hitherto been suggested that when London was in the throes of one of its darkest fogs it was bathed in an atmosphere of rich and rare metallic elements. But such would seem to be the case according to micro-spectroscopic methods. It should be remembered, however, that these methods discover the most infinitesimal quantities; indeed, it may be but a few molecules.

THE spring meeting of the Medico-Psychological Association will be held at the Essex County Asylum at Brentwood on Wednesday, April 24th. From 11.30 A.M. to 1 P.M. there will be an inspection of the asylum and grounds, followed by luncheon on the invitation of Dr. G. Amsden, the medical superintendent of the asylum. At the general meeting, which will take place at 2.45 P.M., Dr. Robert Jones will communicate a paper on "How should the subject of Insanity be taught to the Medical Student?" and Dr. Arthur H. Spicer will deal with "A Case of Spontaneous Fracture." In the evening the members will dine at the Café Monico, Piccadilly-circus.

THE death is announced, on April 13th, of Mr. George Fleming, C.B., LL.D., F.R.C.V.S., late Principal Veterinary

Surgeon to the army. He was born in 1833, served through the Crimea and on the North China Expedition, and was five times President of the Royal Veterinary College. A pathetic circumstance connected with his death is that he died suddenly on the second day after the wedding of his only surviving daughter to Mr. N. S. Manning, F.R.C.S. Irel., of Combe Martin.

THE KING has graciously consented to act as patron of the Prince of Wales's Hospital Fund for London, and His Royal Highness the Duke of Cornwall and York has expressed his pleasure in accepting the office of President in the place of His Majesty the King. His Majesty has intimated that in his capacity as patron he will continue to watch over the work of the Fund with the same deep interes as hitherto.

THE KING, who as Prince of Wales has been President of the Society of Arts since 1863, has now graciously acceded to the request of the society and has consented to become its patron. His Majesty has also permitted the society to continue the use of his profile on the medals of the society.

THERE was a small gathering of the members of the Metropolitan Counties Branch of the British Medical Association at Exeter Hall on April 3rd, when the meeting approved of the principles embodied in the provisional report of the Constitutional Committee.

THE King has been graciously pleased to grant his patronage to the Royal General Dispensary, Bartholomew's-close, E C. His Majesty has also consented to continue his patronage to the Hospital for Consumption and Diseases of the Chest, Brompton.

THE second annual meeting of the American Congress of Tuberculosis will be held at the Grand Central Palace, New York, on May 15th and 16th, in joint session with the Medico-Legal Society of New York.

NOTICE has been received at the Colonial Office, dated April 10th, 1901, that 10 days' quarantine have been imposed at Cyprus against Egypt in consequence of bubonic plague.

THE King has appointed Dr. William Thomas Prout (Colonial Surgeon) to be an Official Member of the Legislative Council of the Colony of Sierra Leone.

DR. H. D. ROLLESTON is starting for Pretoria to replace Dr. J. W. Washbourn for six months as senior physician to the Imperial Yeomanry Hospital.

WORKHOUSE DIETARY.—A man who has been an inmate of Withington Workhouse since August, 1899, has made a practical protest against the new dietary order of the Local Government Board by throwing his breakfast through the doorway and refusing to do any work. He said that it was on account of his health and the insufficiency of the food. On the day of his protest it consisted of one and a half pints of porridge, one and a half ounces of treacle, and two ounces of bread. In addition to the breakfast the paupers, it was explained, if well behaved, had a lunch of bread and cheese. The medical officer of the workhouse said that the man was quite fit to go on the new diet and to do the work allotted to him. Some conversation took place at the county police-court, and the prisoner informed Mr. Yates, the magistrate, that "they give you eight ounces of bread in prison" and that the porridge is very thin and really gruel and "not much good." The medical officer said that "the prisoner seemed to have been put forward as a test case against the new diet." In *sentencing the man* to seven days' *imprisonment* with hard labour Mr. Yates said "he would now be able to compare the two diets."

THE REPORT ON ANÆSTHETICS ISSUED BY THE BRITISH MEDICAL ASSOCIATION AND "THE LANCET" CLINICAL REPORT ON ANÆSTHETICS.

II.[1]

THE sections in the report of the British Medical Association dealing with the methods employed, although of interest, afford no finality in the conclusions which they express. It is pointed out both in this report and in that of THE LANCET that the methods classified under one name may be widely different in their actual technique. A towel or piece of lint employed as a means of exhibiting chloroform may in dexterous hands be tolerably safe, but when used in such *a way as to allow a high percentage vapour of chloroform* with excessive exclusion of air it must result in death. The material upon which the committee of the British Medical Association had to work appears to have been too inexact for them to obtain any very definite results, but some useful information is still to be gleaned from the sections. Thus, although they state that the lint method gives a high danger-rate, higher than the towel method, yet the study of the cases compels the belief that practically all the recorded cases of chloroform administration were those grouped under the general heading of "open method," and that as there were so few figures dealing with any method based upon measured quantities of the anæsthetic used no basis for comparison is afforded. If this contention is correct the figures (pp. 95–96) are really merely those of various *methods, perhaps some superior to others, still all of* them examples of non-regulated chloroformisation. These plans were adopted by a large number of persons some of whom were experts, so that it appears probable that the results obtained constituted a resultant of opposite forces —the careful and the careless chloroformisation.

The two reports emphasise how persistent are the old methods—the "slapdash" methods, as they have been termed. The actual variety of the "open method" employed is thus shown to be of less importance than the individual skill of the person carrying it out. Certain it is, that we possess no statistics which prove the safety or the converse of the "open method," or of the method in which a regulating inhaler is employed. The appendix to the British Medical Association report gives a small number of cases (1521) in which a semi-closed method (the Hyderabad cone), was followed with a death-rate of *nil* and a low danger-rate, but here obviously the surgeon in charge took the utmost care to avoid an overdose. Moreover the plan adopted was to pour measured quantities of the chloroform into the cone at stated intervals, thus giving a certain degree of regulation of dosage by this method. These cases are too few for comparison with the towel, lint, or Skinner mask cases. All methods used for the exhibition of chloroform taken together according to the British Medical Association report, give a complication-rate of 3·27 per cent. to the total number of cases, a danger-rate of 1·032 per cent., and one death in 744 cases; the towel method gives a complication-rate of 3 92 per cent., a danger-rate of 1·41 per cent, and one death in 888 cases, and the lint method gives a complication-rate of 2·14 per cent., a danger-rate of 0 59 per cent., but one death in 542 cases, *showing that* although the cases of danger were few they were extremely grave when they did occur. The regulating method suggested by Dr. Junker and sometimes recorded under other names was only recorded in 411 instances, but although these showed a favourable record it would be useless to base any arguments upon so slender a foundation. Indeed, the experience of the past *years has shown the* tendency there is for an observer after the careful use of one method subsequently to regard his success as necessarily a proof of the value and safety of his plan. The good results are usually due less to such a cause than to the expertness acquired by conscientious employment of a routine method.

It would not only be tedious, but quite useless, to consider methods in the case of other anæsthetics than chloroform. We may, however, remark that the committee call attention, and we *think rightly,* to the fact that when mixtures containing chloroform—e.g., the A.C.E. mixture—are exhibited from closed inhalers the danger-rate is at once greatly increased.

---

[1] Article I. was published in THE LANCET of March 30th, 1901, p. 951.

Germane to the question of method is that of the quantity of the anæsthetic employed. There are two considerations which must be borne in mind in attempting to arrive at any conclusions about what bearing a rapid or a slow rate of evaporation of an anæsthetic may have upon the safety or danger of the method employed. These are (1) whether we are dealing with a uniform evaporation-rate (we believe this is not so in the section, p. 95) and (2) whether a rapid evaporation was associated with a high air dilution. Obviously, until we know that the air dilution is constant or that it varies according to a known rate and that the evaporation is so uniform that we can be sure that the cases of danger were not those in which a high evaporation-rate existed throughout, we cannot learn very much from even the most elaborate tables or collocation of figures. Let us take an example to make this point clear. If a chloroformist adopts a very slow rate of evaporation, the time of induction being prolonged, a great temptation is offered to accelerate the induction of narcosis by rapidly increasing the quantity of the anæsthetic given. In such a case the danger or death would appear in the report before us in association with an apparently small quantity of chloroform distributed over the prolonged induction. As must have been expected the mere rate at which chloroform is inhaled appeared to be a matter of no importance, the vital question being how much air was present to dilute its vapour.

The duration of anæsthesia was also studied and the following deductions from the statistics are certainly of interest, even although it would be unwise to attach too much importance to them since they are unfortunately divorced from such contributory factors as methods of administration, age, and general condition of the patient, the temperature of the room, and, perhaps the most important of all, the character and severity of the operation. The methods, indeed, adopted in the British Medical Association's report, possibly incident to the peculiar circumstances of its conduct, tend to over-specialisation in the sense that many intimate factors are separated and this leads to a serious loss of continuity. Thus besides the instances given above, we meet with "phenomena of anæsthesia" and "after-effects" wholly separated from "general conditions," "nature of operation," "duration of administration," "quantity of anæsthetic used," and method of induction.

Dealing with chloroform, we find that prolonged duration (*vide* p. 85) was marked by a high rate of complication, including many trivial complications such as were included in Class *a*, while the danger-rate was higher in the initial stages of anæsthesia and became markedly less in very prolonged cases—e g., those exceeding an hour; 75 per cent. of the deaths occurred before the average duration of chloroform narcosis was reached (i.e., 22·748 minutes). However fatalities possibly with causal relationship to prolonged anæsthesia are recorded in relation to three cases which lasted 40, 45, and 90 minutes, these being the longest anæsthesia noted. The cases of "danger" which, however, did not lead to death were distributed pretty evenly throughout the period of anæsthesia, being apparently as liable to occur in short, in medium, and in prolonged operations under anæsthetics. These two facts are of great importance as they appear to show that on the one hand the dangers attributed to incomplete anæsthesia, and on the other those arising from operation effects incident to prolonged anæsthesia, did not exist at all events in sufficient number to influence the statistics. The effects incident to incomplete anæsthesia would appear in the early stage and those due to operative shock and exhaustion in the later stage of narcosis, but, as we have said, no clear indication of such is found in the figures before us. When all anæsthetics are taken together the highest danger-rate existed in cases lasting over two hours (2·12 per cent. to the total number of cases), the next highest in those lasting less than five minutes (1·58 per cent.) and then in those lasting between five and 10 minutes (1·0 per cent.). Under chloroform alone the danger-rate was also highest in narcosis lasting less than five minutes (2·02 per cent.); for those lasting from five to 10 minutes it was 1·42 and a slight but not uniform rise followed. The incidence of danger in the early stage of narcosis under chloroform, ether, gas and ether, and the A.C.E. mixture seems to indicate either that the stage of induction is the period of greatest peril or that the tendency is to rush the patient into unconsciousness without due regard to consequences. It may be added that as the "after-effects" phenomena and "imperfect anæsthesia" cannot but be regarded as closely allied to the question of duration of anæsthesia and "quantity of anæsthetic" used, we propose to consider the sections (pp. 106 and 122) in the present connexion.

In Table LXXII. an attempt is made to associate the after-effects with the duration of anæsthesia, but only retching and various degrees of sickness, collapse, headache, excitement are given. That such phenomena should, *cæteris paribus*, occur in prolonged anæsthesia seems to need no comment. Considering the chief after-effects *seriatim* the following facts are stated (p. 108) in the report. While slight (i.e., post-anæsthetic) vomiting occurred in the following order as to frequency after (1) ether, (2) A.C.E., (3) gas and ether, and (4) chloroform, prolonged (severe) vomiting occurred in the following order: (1) chloroform, (2) gas and ether, (3) A.C.E., and (4) ether. In the last case the complication was rare. Circulatory depression occurred most frequently after chloroform, less after ether, and still less after gas and ether, and this in spite of the fact that there is evidence that in many cases ether was selected because circulatory depression was feared. Bronchitis, or bronchial catarrh, is noted as occurring once in every 400 ether administrations, and only once in every 3300 chloroform cases. These cases were grouped as "anxiety," while no instances occur under "danger" or "death." In the 13 cases given two were severe bronchitis, but of short duration, the other 11 being apparently mild and probably merely catarrh of a very transitory character. One case of broncho-pneumonia only was recorded which occurred after A.C.E. in succession to ether and commenced on the fifth day after the inhalation. Corroborative evidence of the extreme rarity of fatal lung complications following the use of ether is given in THE LANCET report, pp. 167 to 173. Of the 37 cases of which necropsies are given only two give evidence of possibly acute lung trouble which may have been related causally with the inhalation of ether. These were a case of "ether pneumonia" and one of pulmonary œdema. On referring to the actual cases we find that three deaths are described as resulting from heart failure due to respiratory embarrassment from emphysema, while in a fourth these conditions were intensified by the presence of bronchitis. It is to be noted, however, that all these conditions were chronic and although the improper use of ether made them dangerous yet they were not the result of ether inhalation. In another case (see Case 1) ether was given to a person suffering from bronchitis and this procedure, most improper in itself, led to an exacerbation of the patient's disease. After noticing the intensification of the symptoms of such complaints as pneumonia, bronchorrhœa, and empyema, the report concludes by saying: "It is noteworthy that comparatively little mention is made of patients dying from pulmonary affections initiated by the ether." And this statement becomes more emphatic when we remember that THE LANCET report covers a period of years from the first use of ether to 1891 and includes a long period during which the methods by which ether was given were not only crude but even dangerous.

Renal after-effects are conspicuously absent as a direct result of ether inhalation. In the British Medical Association report two cases of uræmia are noted, but in neither can the effects of the operation be eliminated. THE LANCET report makes the statement: "In no cases are reliable facts given pointing to nephritic trouble *following* the use of ether." These facts are very striking, perhaps the more so as the first report referred to has shown little tendency to favour ether, at all events in the body of the text.

Both reports again refer in some detail to the question of the relative importance of respiratory and circulatory failure under chloroform, and again they concur in asserting that while the former frequently occurs, yet in the "danger" and "death" cases the latter phenomenon is the one of first importance. Personally, we believe that as our knowledge of the physiology of the subject increases we shall attach much less importance to the point, but at present it seems pretty certain that the weight of evidence tends to show that more patients die from chloroform through circulatory depression, apparently arising from cardiac enfeeblement or vaso-motor paresis or both.

It is with a feeling of regret that we refer to the sections in the report which consider the all-important question of resuscitation. Here we are met by a unanimous verdict of *non possumus*. It is idle beating of the air. We are inclined to wish that some attempt had been made in the report of the British Medical Association, upon the committee of which sat men of great experience, to point out how futile and wasteful of valuable time are most of the measures recorded as having been used in attempting resuscitation. Surely with the knowledge gathered from a review of minor and major complications arising in 26 000 cases some definite directions might have been advanced to help those who in desperate plight strive often without method or system to restore to animation patients over-narcotised or asphyxiated.

The "conclusions" of the British Medical Association report are perhaps the weakest portion of that pronouncement. They exaggerate the timidity of utterance which it appears to us shows itself throughout the whole. In those which are truly conclusions, that is, direct inferences from premisses given before and not merely repetitions of statements of fact, we notice an apparent "hedging," which certainly lessens the value of the report as a guide to practical men. Thus, on p. 124 we read: "Although (excluding nitrous oxide) ether may be accepted as the safest routine agent, certain circumstances, determined by the state of the patient, the nature of the operation, &c., may render the use of some other anæsthetic or combination of anæsthetics both safer and easier." If such a statement means anything at all it amounts to this, that the writers were quite unable or unwilling to give a definite opinion as to the anæsthetic which should be given without adding so many vague generalities as to leave their decision colourless and devoid of merit. The conclusions of THE LANCET report are definite and are borne out by the facts given in the body of that report.

In the general conclusion of the British Medical Association report, although we find some firmness of affirmation, we venture to think that it is diametrically opposed to the findings of the preceding sections of the report. It states in two forms the same thing, that the one thing needful is the experience of the anæsthetist—all other things pale into nebulous nothings beside his overpowering personality. But although we endorse the statement that no one who has not experience or who has not learnt the principles of his art should be entrusted with the care of a patient, yet we fail to see what useful purpose such an elaborate report as that before us can subserve if its 134 pages cannot tell us more than this statement of platitude presents. Surely the experience of even the expert needs supplementing by the views of others and by the study of reports such as those before us, to be broadened by definite statements which may reasonably be looked for from such reports. Unquestionably the main value of the report of the British Medical Association lies in the many sidelights which it perhaps unwittingly throws upon the subject. Its dealings with the phenomena of narcosis and the after-effects, the "complications," many of which appear to the ordinary person almost too trivial to chronicle, are very useful sometimes as guides as to what to do and sometimes as beacons warning against what to avoid. The cases of death, all of which are epitomised, are too few for special comment, and this section is of far less importance to the student than the corresponding portion of THE LANCET report which gives the particulars of practically all fatalities which occurred in a period of over 40 years. No reference in the body of the report of the British Medical Association is made to the appendices, nor are these of special moment. That of Professor Ramsay is somewhat belated, as he had given his views some years back in a leading lay magazine, and although his *dicta* concerning the purification of chloroform by slaked lime have been adversely criticised by experts in chloroform-making, we notice that he has not availed himself of the present opportunity for reconciling his statements with those of his critics. Lieutenant-Colonel Lawrie's appendix is very interesting. It explains his methods and describes his practice, which has become so far modified that he now uses measured quantities of chloroform. The report of the British Medical Association brings into bold relief the leisure, order, and numerical strength of the anæsthetic staff which under Lieutenant-Colonel Lawrie controls the proceedings of the Afzulgunj Hospital.

MESSRS. BAILLIÈRE, TINDALL, AND COX, medical publishers, in consequence of their premises being required for the enlargement of Charing Cross Hospital, have removed to 8, Henrietta-street, Strand.

THE CASE OF MR. LOUIS FERDINAND DODS: AN APPEAL.

WE have been requested to announce that the undersigned gentlemen have formed themselves into a committee for the purpose of assisting Mr. Louis Ferdinand Dods in defraying the heavy law costs and expenses which he has been unfortunately put to (amounting to over £400) in defending the action brought against him by Nurse Dowling for an alleged libel in respect of a notice which he gave to a relieving officer in accordance, as he believed, with the Lunacy Acts.

The appeal of the signatories runs as follows:—

"In the first instance upon the action being tried by Mr. Justice Darling and a jury a verdict was given against Mr. Dods for £100, but happily for the general public and the profession the Court of Appeal put the matter right and reversed the verdict and judgment of the court below and directed judgment to be entered for the appellant with costs, which, however, he has not been able to recover. Looking at all the circumstances, and considering that Mr. Dods has for many months had the severe strain and burden of a litigation which he has concluded so successfully, as much for the benefit of his colleagues in the profession as for himself, the committee earnestly appeal to the medical profession generally, and to all others who may be disposed to be generous, to contribute to the fund."

Mr. W. J. Walsham has consented to act as honorary treasurer and contributions may be sent to him or to any other member of the committee as follows:—

LAUDER BRUNTON, M.D. Edin., F.R.S.,
10, Stratford-place, W.
GEORGE DANFORD THOMAS, M.D. Brux.,
20, Brunswick square, W.C.
ALBAN DORAN, F.R.C.S. Eng.,
9, Granville-place, W.
PERCY G. LODGE, L.S.A.
Lee House, Bradford.
WILLIAM RAYNER, M.R.C.S Eng.,
4, Dorset square, N.W.
W. J. WALSHAM, F.R.C.S. Eng.,
77, Harley-street, W.
RIVERS WILLSON,
Union Society, Oxford.

FIRST LIST OF CONTRIBUTORS.

	£	s.	d.		£	s.	d.
Sir T. Lauder Brunton...	5	5	0	Mr. Percy G. Lodge ...	2	2	0
Dr. George Danford Thomas	5	5	0	Mr William Rayner ...	5	5	0
Mr. Alban H. Griffiths Doran	2	2	0	Mr. Percy A. Storey ...	5	5	0
				Mr. W. J. Walsham ...	5	5	0
				Mr. Rivers Willson ...	1	1	0

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY meeting of the Council was held on April 13th, the President, Sir WILLIAM MAC CORMAC, Bart., K.C.V.O., being in the chair.

Mr. Sibert Forrest Cowell was admitted to the office of secretary and he signed the required declaration.

A letter of March 20th was read from the Home Secretary conveying the thanks of the King for the address of the College expressing sympathy on the occasion of the death of Queen Victoria and congratulation on His Majesty's accession to the Throne.

The Museum Committee reported that a number of Chinese and other skeletons and skulls had been purchased for the museum.

The best thanks of the Council were given to Mr. Bryant for his present to the College of books and pamphlets.

The question of providing additional accommodation for the library was referred to the Library Committee.

The Council, on the recommendation of the committee, did not award the triennial prize. The Jacksonian Prize was awarded to Mr. W McAdam Eccles, the author of the essay on the Pathology, Diagnosis, and Treatment of the Diseases caused by and connected with Imperfect Descent of the Testicle, with the motto "*Crux mihi grata quies.*"

The subject for the next collegial triennial prize was chosen—"The Pathological Conditions arising from Imperfect Closure of the Visceral Clefts."

The subject for the next Jacksonian Prize for the year 1902 was chosen—"Fracture of the Skull: its Consequences, Immediate and Remote, including Pathology and Treatment."

In future it will be required that all essays for the collegial triennial and Jacksonian prizes shall be typewritten.

On the recommendation of the Walker Prize Committee it was resolved not to award the prize on this occasion. The opinion of the committee was arrived at after consulting, and receiving most valuable advice and assistance from, eminent French, Italian, German, Scandinavian, American, Canadian, and British surgeons and pathologists.

The following two Members of the College of 20 years' standing were elected to the Fellowship: Mr. Priestley Smith of Birmingham and Major Ronald Ross, I.M.S., of Liverpool.

A report from the Board of Examiners in Dental Surgery was received, but it was referred back to the board for further consideration in connexion with other matters.

Dr. T. G. Brodie was re-elected Superintendent of the Laboratories subject to the approval of the Royal College of Physicians of London.

It was resolved to ask the Royal College of Physicians of London to appoint delegates to meet delegates of this College for the purpose of considering the position of the two colleges with regard to the reconstituted University of London.

In reply to a letter from the secretary of the Congress on Tuberculosis requesting the loan of specimens from the museum it was referred to the chairman of the Museum Committee and the Conservator of the Museum to select the specimens to be lent.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6177 births and 4339 deaths were registered during the week ending April 13th. The annual rate of mortality in these towns, which had been 18·4, 19·7, and 19·2 per 1000 in the three preceding weeks, was again 19 2 last week. In London the death-rate was 18·3 per 1000, while it averaged 19·8 in the 32 large provincial towns. The lowest death-rates in these towns were 11·2 in Croydon, 11·6 in Cardiff, 12·3 in West Ham, and 15 7 in Birkenhead; the highest rates were 23·7 in Newcastle, 23·9 in Preston, 24·2 in Manchester, and 25 0 in Liverpool. The 4339 deaths in these towns included 397 which were referred to the principal zymotic diseases, against 427 and 380 in the two preceding weeks; of these, 130 resulted from whooping-cough, 112 from measles, 68 from diphtheria, 35 from diarrhœal diseases, 31 from scarlet fever, 19 from "fever," and two from small-pox No death from any of these diseases occurred last week either in Plymouth or in Huddersfield; in the other towns they caused the lowest death-rates in Croydon, Brighton, Norwich, and Blackburn, and the highest rates in Portsmouth, Bristol, Wolverhampton, Liverpool, and Burnley. The greatest proportional mortality from measles was registered in Portsmouth, Liverpool, Leeds, Hull, Sunderland, and Gateshead; from scarlet fever in Derby; and from whooping-cough in Bristol, Swansea, and Wolverhampton. The mortality from "fever" showed no marked excess in any of the large towns. The 68 deaths from diphtheria included 26 in London, five in Bristol, five in Leicester, four in Birmingham, and four in Manchester. Two fatal cases of small-pox were registered last week in Liverpool, but not one in any other of the 33 large towns; and no small-pox patients were under treatment in any of the Metropolitan Asylums hospitals on Saturday, April 13th, The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 1601, against 1568 and 1572 on the two preceding Saturdays; 205 new cases were admitted during the week, against 151, 167, and 180 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 363 and 360 in the two preceding weeks, further declined last week to 345, and were 45 below the corrected average. The causes of 66, or 1·5 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Nottingham, Salford, Bradford, Leeds, Hull, and 10 other smaller towns; the largest proportions of uncertified deaths were registered in Norwich, Liverpool, Blackburn, Preston, Sheffield, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·1, 21·6, and 24·1 per 1000 in the three preceding weeks, declined again to 23·2 during the week ending April 13th, but showed an excess of 4·0 per 1000 over the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 16·8 in Perth and 18·9 in Leith and in Paisley to 23·9 in Edinburgh and 24·1 in Glasgow. The 726 deaths in these towns included 51 from whooping-cough, 17 from measles, 13 from diarrhœa, six from small-pox, four from diphtheria, three from scarlet fever, and one from "fever." In all, 95 deaths resulted from these principal zymotic diseases, against 87, 93, and 102 in the three preceding weeks. These 95 deaths were equal to an annual rate of 3·0 per 1000, which was 1·2 per 1000 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of whooping-cough, which had been 36 and 57 in the two preceding weeks, declined again last week to 51, of which 27 occurred in Glasgow, 10 in Edinburgh, six in Dundee, and four in Paisley. The deaths from measles, which had been 17 and 16 in the two preceding weeks, rose again to 17 last week, and included 10 in Edinburgh, three in Glasgow, and two in Leith. The fatal cases of diarrhœa, which had been 16 and 8 in the two preceding weeks, rose again last week to 13, of which six were registered in Glasgow, four in Aberdeen, and two in Dundee. The deaths from small-pox, which had been 24, 11, 10, and five in the four preceding weeks, rose again to six last week, and all occurred in Glasgow, where the four fatal cases of diphtheria were also recorded. The deaths referred to diseases of the respiratory organs in these towns, which had been 126, 127, and 150 in the three preceding weeks, further increased last week to 155, and showed an excess of 21 over the number in the corresponding period of last year. The causes of 32, or more than 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 36·6, 34·0, and 31·9 per 1000 in the three preceding weeks, rose again to 35·6 per 1000 during the week ending April 13th. During the past four weeks the death-rate in the city has averaged 34·5 per 1000, the rates during the same period being 18 0 in London and 22·4 in Edinburgh. The 236 deaths of persons belonging to Dublin registered during the week under notice were 24 in excess of the number in the preceding week, and included 15 which were referred to the principal zymotic diseases, against 14 and 12 in the two preceding weeks; of these, eight resulted from whooping cough, three from diarrhœa, 2 from scarlet fever, and two from "fever." These 15 deaths were equal to an annual rate of 2·2 per 1000, the zymotic death-rates during the same period being 1·9 in London and 3·9 in Edinburgh. The fatal cases of whooping-cough, which had been seven, 11, and five in the three preceding weeks, rose again last week to eight. The mortality from diarrhœa showed a slight increase over that recorded in the preceding week. The fatal cases of "fever," which had been two, one, and four in the three preceding weeks, declined again to two last week. The 236 deaths in Dublin last week included 37 of children under one year of age and 59 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons exceeded the numbers recorded in the preceding week. Six inquest cases and four deaths from violence were registered; and 79, or one-third, of the deaths occurred in public institutions. The causes of 15, or more than 6 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING MARCH, 1901.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality in each of the 29 cities and boroughs in the county of London. With

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON DURING MARCH, 1901.

(*Specially compiled for* THE LANCET.)

CITIES AND BOROUGHS.	Estimated population in the middle of 1901.	NOTIFIED CASES OF INFECTIOUS DISEASE.											DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.											Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
		Small pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœal diseases.	Total.	Annual rate per 1000 persons living.			
LONDON...	4,651,113	1	708	730	1	146	2	11	249	—	1848	5·2	—	166	30	83	198	—	27	1	62	567	1·6	6353	17·8	130
West Districts																										
Paddington	148,148	—	33	12	—	6	—	1	13	—	65	5·7	—	—	1	2	11	—	1	—	2	17	1·5	186	16·4	135
Kensington	177,205	—	24	20	—	5	—	1	6	—	56	4·1	—	—	2	4	16	—	1	—	1	24	1·8	208	15·2	194
Hammersmith	111,213	—	13	16	—	6	1	—	8	—	44	5·2	—	—	1	4	12	—	—	—	1	18	2·1	140	16·4	141
Fulham	141,920	1	31	31	—	4	—	—	10	—	77	7·1	—	5	3	2	6	—	2	—	2	20	1·8	171	15·7	110
Chelsea	73,843	—	12	9	—	2	—	—	7	—	30	5·3	—	1	—	1	9	—	—	—	—	11	1·9	109	19·2	147
City of Westminster	189,375	—	24	16	—	7	—	—	9	—	56	3·9	—	—	1	1	3	—	1	—	4	10	0·7	239	18·5	167
North Districts.																										
St. Marylebone	140,460	—	16	28	—	5	—	—	11	—	60	5·6	—	—	—	3	9	—	—	—	4	16	1·5	191	17·7	144
Hampstead	82,605	—	12	8	—	1	—	—	2	—	23	3·6	—	—	1	2	2	—	—	—	—	5	0·8	78	12·3	83
St. Pancras	248,098	—	30	38	—	6	—	1	13	—	88	4·7	—	—	1	7	12	—	3	—	3	26	1·4	355	18·8	141
Islington	353,528	—	46	33	—	15	—	—	18	—	112	4·1	—	3	—	2	10	—	3	—	4	22	0·8	420	15·5	140
Stoke Newington	55,758	—	7	10	—	2	—	1	—	—	20	4·7	—	1	—	1	1	—	—	—	1	4	0·9	59	13·8	105
Hackney	228,417	—	25	37	—	9	—	1	17	—	89	5·1	—	29	—	3	6	—	1	—	3	42	2·4	306	17·5	104
Central Districts.																										
Holborn	69,700	—	7	5	—	1	—	—	5	—	18	3·9	—	1	—	—	2	—	1	—	1	5	1·1	89	19·4	88
Finsbury	106,590	—	10	12	—	5	—	—		—	36	4·4	—	1	1	1	5	—	1	—	2	11	1·3	168	20·5	101
City of London	25,289	—	3	3	—	—	—	—	2	—	8	4·3	—	1	—	—	1	—	—	—	—	2	1·1	39	20·9	188
East Districts.																										
Shoreditch	120,614	—	8	15	—	7	—	3	9	—	42	4·5	—	2	—	1	11	—	—	—	1	15	1·6	207	22·4	147
Bethnal Green	127,509	—	14	17	—	2	—	—	7	—	40	4·1	—	4	1	6	2	—	2	—	1	16	1·6	192	19·6	115
Stepney	305,058	—	34	41	—	9	—	—	23	—	107	4·6	—	13	3	6	6	—	3	—	2	33	1·4	501	21·4	123
Poplar	170,465	—	44	59	—	11	—	—	6	—	120	9·2	—	4	—	6	11	—	3	—	3	27	2·1	265	20·3	141
South Districts.																										
Southwark	208,869	—	53	37	—	3	—	—	4	—	97	6·1	—	14	3	1	9	—	1	—	4	32	2·0	351	21·9	137
Bermondsey	136,824	—	28	21	1	8	—	—	11	—	69	6·6	—	13	1	1	3	—	1	—	2	21	2·0	220	21·9	147
Lambeth	318,530	—	42	45	—	4	1	—	14	—	106	4·3	—	9	3	6	14	—	1	1	6	40	1·6	411	16·8	112
Battersea	180,017	—	20	18	—	3	—	—	5	—	46	3·3	—	2	1	1	8	—	1	—	3	16	1·2	218	15·8	130
Wandsworth	242,224	—	26	30	—	9	—	—	7	—	72	3·9	—	6	2	3	8	—	—	—	3	22	1·2	254	13·7	122
Camberwell	269,102	—	52	84	—	6	—	1	13	—	156	7·6	—	32	2	14	7	—	—	—	2	57	2·8	417	20·2	150
Deptford	113,562	—	32	22	—	1	—	1	7	—	63	7·2	—	9	1	2	10	—	—	—	—	22	2·5	165	18·9	153
Greenwich	91,223	—	16	17	—	—	—	—	7	—	40	5·7	—	6	1	2	—	—	—	—	1	10	1·4	120	17·1	90
Lewisham	112,856	—	32	28	—	4	—	—	3	—	67	7·7	—	8	—	—	1	—	—	—	4	13	1·5	129	14·9	125
Woolwich...	114,106	—	14	18	—	5	—	1	3	—	41	4·7	—	2	1	1	3	—	1	—	2	10	1·1	140	16·0	104
Port of London	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 19 cases of membranous croup.

† Including deaths from membranous croup.

regard to the notified cases of infectious disease it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to an annual rate of 5·2 per 1000 of the population, estimated at 4,651,113 persons in the middle of the year. In the three preceding months the rates had been 8·0, 6·2, and 5·7 per 1000 respectively. The rates were considerably below the average in the City of Westminster and in Hampstead, Holborn, Battersea, and Wandsworth boroughs; while they showed the largest excess in Fulham, Poplar, Bermondsey, Camberwell, Deptford, and Lewisham. One case of small-pox was notified last month in Fulham, but not one in any other metropolitan borough; and no small-pox patients were under treatment in any of the Metropolitan Asylums hospitals at the end of March. Scarlet fever was slightly less prevalent during March than in the preceding month; among the various metropolitan boroughs this disease showed the highest proportional prevalence in Paddington, Fulham, Poplar, Southwark, Deptford, and Lewisham. The Metropolitan Asylums hospitals contained 1533 scarlet fever patients on March 30th, against 2460, 1979, and 1791 at the end of the three preceding months; the weekly admissions averaged 142, against 214, 164, and 156 in the three preceding months. The prevalence of diphtheria during March has shown no variation from that recorded in each of the two preceding months; the greatest proportional prevalence of this disease occurred in Fulham, St. Marylebone, Poplar, Camberwell, Deptford, and Lewisham. There were 1084 diphtheria patients under treatment in the Metropolitan Asylums hospitals at the end of last month, against 1343, 1113, and 1111 at the end of the three preceding months; the weekly admissions averaged 134, against 127, 129, and 136 in the three preceding months. The prevalence of enteric fever last month showed a further decline from that recorded in recent months; among the various metropolitan boroughs this disease was proportionally most prevalent in Hammersmith, Hackney, Finsbury, Shoreditch, Poplar, and Bermondsey. The number of enteric fever patients under treatment in the Metropolitan Asylums hospitals, which had been 403, 299, and 224 at the end of the three preceding months, had further fallen to 162 at the end of March; the weekly admissions averaged 18, against 51, 32, and 25 in the three preceding months. Erysipelas was proportionally most prevalent in Paddington, Chelsea, Holborn, Finsbury, City of London, and Bermondsey. Of the 11 cases of puerperal fever three were notified in Shoreditch borough.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various metropolitan boroughs, the deaths occurring in the public institutions of London having been distributed among the various boroughs in which the patients had previously resided. During the four weeks ending March 30th the deaths of 6358 persons belonging to London were registered, equal to an annual rate of 17·8 per 1000, against 16·2, 17·5 and 19·4 per 1000 in the three preceding months. The lowest death-rates last month in the various metropolitan boroughs were 12·3 in Hampstead, 13·7 in Wandsworth, 13·8 in Stoke Newington, 14·9 in Lewisham, 15·2 in Kensington, and 15·5 in Islington; the highest rates were 20·5 in Finsbury, 20·9 in the City of London, 21·4 in Stepney, 21·9 in Southwark and in Bermondsey, and 22·4 in Shoreditch. During the four weeks of March 567 deaths were referred to the principal zymotic diseases; of these, 166 resulted from measles, 30 from scarlet fever, 83 from diphtheria, 198 from whooping-cough, 27 from enteric fever, one from simple continued fever, and 62 from diarrhœal diseases. The lowest death-rates last month from these diseases occurred in the City of Westminster, in Hampstead, Islington, Stoke Newington, Holborn, in the City of London, and in Woolwich; and the highest rates in Hammersmith, Hackney, Poplar, Southwark, Bermondsey, Camberwell, and Deptford boroughs. The 166 deaths from measles showed a decline of 94 from the corrected average number; this disease was proportionally most fatal in Hackney, Southwark, Bermondsey, Camberwell, Deptford, and Lewisham. The 30 fatal cases of scarlet fever were 23 below the average number in the corresponding periods of the 10 preceding years; among the various metropolitan boroughs the greatest proportional mortality from this disease occurred in Kensington, Fulham, Stepney, Southwark, and Lambeth. The 83 deaths from diphtheria showed a decline of 80 from the corrected average number; this disease was proportionally most fatal in Hammersmith, St. Pancras, Bethnal Green, Poplar, and Camberwell. The 198 fatal cases of whooping-cough were 61 below the average number in the corresponding periods of the 10 preceding years; among the various metropolitan boroughs this disease showed the greatest proportional fatality in Kensington, Hammersmith, Chelsea, Shoreditch, Poplar, and Deptford. The 28 deaths referred to "fever" were slightly below the corrected average number; the highest "fever" death-rates occurred in Fulham, St. Pancras, Islington, Holborn, Bethnal Green, Stepney, and Poplar. The 62 deaths from diarrhœal diseases showed a considerable excess over the number in the corresponding periods of the 10 preceding years; these diseases were proportionally most fatal in the City of Westminster, St. Marylebone, Finsbury, Southwark, Lambeth, and Lewisham. In conclusion, it may be stated that the aggregate mortality from these principal zymotic diseases in London during March was nearly 31 per cent. below the average.

Infant mortality in London last month, measured by the proportion of deaths of children under one year of age to registered births, was equal to 130 per 1000. The lowest rates of infant mortality were recorded in Hampstead, Hackney, Holborn, Finsbury, Greenwich, and Woolwich; and the highest rates in Kensington, the City of Westminster, the City of London, Camberwell, and Deptford.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Deputy Inspector-General G. J. Irvine to Chatham Hospital. Staff Surgeons: F. A. Brice to the *Malabar*, for Bermuda Dockyard; G. A. Waters to the *Psyche;* and E. W. Lomas to the *Northampton*. Surgeons: P. H. Boyden to the *Woodlark* on recommissioning, and John Whelan to the *Howe*.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel R. W. Ford is posted to the Station Hospital, Portsmouth, for duty. Lieutenant Henderson is placed under orders for India. Lieutenants A. J. Hull and R. D. Jameson join at Woolwich. Lieutenant-Colonel R. O. Gunning, Acting Principal Medical Officer, North-Western District, is placed under orders for South Africa.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant Albert Ehrmann, 22nd Middlesex Volunteer Rifle Corps, to be Surgeon-Lieutenant.

VOLUNTEER CORPS.

Artillery: 2nd Cinque Ports (Eastern Division, Royal Garrison Artillery): Christopher Ralph Skyrme to be Surgeon-Lieutenant. Renfrew and Dumbarton: Surgeon-Captain W. A. McLachlan resigns his commission. 2nd East Riding of Yorkshire (Western Division, Royal Garrison Artillery): Surgeon-Lieutenant-Colonel J. Sherburn resigns his commission, with permission to retain his rank and to wear the uniform of the corps on his retirement. *Rifle:* 1st Volunteer Battalion the Lincolnshire Regiment: Surgeon-Lieutenant-Colonel H. Wright resigns his commission, with permission to retain his rank and to wear the uniform of the battalion on retirement. 3rd Lanarkshire: Alexander Roxburgh to be Surgeon-Lieutenant. 1st (City of Dundee) Volunteer Battalion the Black Watch (Royal Highlanders): George Francis Whyte to be Surgeon-Lieutenant. 5th (West) Middlesex: Edwin Charles Montgomery-Smith to be Surgeon-Lieutenant.

VOLUNTEER MEDICAL STAFF CORPS.

The Manchester Companies: Surgeon-Lieutenant G. A. Wright resigns his commission.

MENTIONED IN DESPATCHES.

Nigeria.

The names of Dr. F. Cargill and Dr. Thompson are specially mentioned in despatches (the latter for sucking poison from an arrow wound) to the Colonial Secretary relating to the punitive operations in Northern Nigeria.

South Africa.

The following extracts are from a despatch from Earl Roberts, K G., to the Secretary of State for War, dated April 2nd, 1901:—

Royal Army Medical Corps.—Under Surgeon-General Wilson this department has laboured indefatigably both in the field and in the hospitals. Some cases have been brought to my notice in which *officers have proved unequal to the exceptional strain thrown upon* them by the sudden expansion of hospitals, and in the earlier stages of the war the necessity of more ample preparations to meet diseases [illegible] been fully [illegible] no doubt [illegible] am not, [illegible] the great [illegible] *There* are [illegible] been dis- [illegible] der heavy [illegible] been ably [illegible] consulting surgeons who have come out to [illegible] experience materially aided the [illegible] *services rendered by Sir William* [illegible] F. Treves, the late Sir W. Stokes, [illegible] Mr. Kendal Franks, Mr. John [illegible] were of incalculable value. The [illegible] necessitated the employment of a large number of civil surgeons, and to these gentlemen the army owes a debt of gratitude. The heavy strain on the Army Medical Department was further much *relieved by the patriotic efforts of the several committees and* individuals who raised, equipped, and sent out complete hospitals. None but those on the spot can realise how much the Irish Hospital under Sir W. Thomson; the Yeomanry Hospitals and Bearer Co., under Mr. A. D. Fripp, M.V.O., M B., M.S., Mr. A. R. J. Douglas, M.R.C.S., Mr A. A. Scott-Skirving, M R.C.S., Mr. T. H. Openshaw, F.R.C.S.; the Langman Hospital, under Mr. R. T. A. O'Callaghan, F R.C.S.I.; the Welsh Hospital, under Professor T. Jones, M D., F.R.C S. (dead), Professor A. W. Hughes (dead); the Princess Christian's Hospital, under Mr. J. P. Bush, M R.C.S.; the Edinburgh Hospital, under Mr. D. Wallace, M B.; the Scottish National Hospital, under Mr. H. E. Clarke, M.R.C S; the Van Alen Hospital, under Mr. S. Osborn, F.R.C.S.; and the Portland Hospital, under Mr. A. Bowlby, F.R C S—contributed to the comfort and well-being of the sick and wounded.

I might here mention the invaluable assistance rendered to the sick and wounded by those private persons, members of the British Red Cross Society, who, headed by Her Royal Highness Princess Christian, raised, organised, and equipped hospital trains. As a result of their patriotic exertions two complete trains were constructed, one being built at Birmingham and the other made up at East London. Eight other hospital trains were organised by the medical authorities in South Africa, and also rendered excellent service. It may give some idea of the work which was accomplished by these trains if I append a statement showing the distance they covered and the number of patients they carried:—

Cape Line Railway.

—	Journeys.	Miles.	Patients.
Second train	126	67,000	6,063
Third "	64	62,000	6,238
Fourth "	24	Unknown.	2,683
Fifth "	26	28,200	3,113
Sixth "	31	Unknown.	2,694
Seventh "	92	"	6,296

Natal Line Railway.

—	Journeys.	Patients.
First train	145	12,148
Second "	166	12,789
Third "	9	732

Hospital Ships.

The army in South Africa owes a great deal to the hospital ships and to the staff of medical officers and nurses who attended the sick and wounded, transferred to them from the base hospitals.

The *Spartan*, *Trojan*, [illegible] invalids to Cape Town [illegible] *Dunera*, *Orcana*, *Avoca* [illegible] transports and were fitte[illegible] a fortnightly system of [illegible] England [illegible] and men

The following table will be of interest:—

Name of ship.	Where prepared.	By whom.	No. of voyages home with invalids up to end of December, 1900	No. of invalids carried.
Spartan.	Southampton.	Union S.S. Co.	1	108
Trojan.	"	"	1	66
Princess of Wales.	Newcastle-on-Tyne.	Messrs. W. Armstrong, Whitworth and Co.	3	526
Maine.	Thames.	Atlantic Transport Company.	2	285
Lismore Castle.	Durban.	Admiralty Transport Department.	2	289
Avoca.	"		4	1131
Dunera.	"		2	639
Orcana.	"		3	548
Nubia.	"		2	543
Simla.	"		3	816

My thanks are due to Khem Bahadur Dhanjibhoy, a Parsee gentleman long resident in the Punjab, who presented tongas for ambulance purposes. These tongas were horsed and fully equipped with drivers and all necessary gear. These proved most useful.

Nursing Sisters.

I find it difficult within the limits of a short paragraph to give expression to the deep feeling of gratitude with which the Nursing Sisterhood has inspired all ranks serving in South Africa. The devotion, skill, courage, and endurance displayed equally by the Army Nursing Service and by kindred organisations from the colonies have excited my admiration and fully justified the opinion I have held for years as to the necessity and economy to the service of an ample nursing service for our army. *Some of the nurses who have been the most helpful* have been lent to the Army Nursing Reserve by the great hospitals in the United Kingdom.

I propose in a later despatch to bring to your notice the names of some of the most deserving.

The names of the following officers are also brought to notice for meritorious services:—

ROYAL ARMY MEDICAL CORPS.

[illegible] Major C. A. Munn, Major [illegible] O'Donnell, Major H. J. [illegible] Major M. W. Russell, [illegible] Major A. A. Sutton, [illegible] Major G. E. Twiss, [illegible] Captain T. B. Beach, [illegible] Captain C. W. R. [illegible] W. Hooper, Captain E. M. Morphew, Captain F. J. W. Porter, Captain F. W. Begbie, Captain A. F. Tyrrell, Lieutenant H. Ensor, Lieutenant R. S H. Fuhr, Lieutenant E. T. Inkson, Lieutenant W. H. S Nickerson, Lieutenant C. J. O'Gorman, Lieutenant [illegible] (Roberts's Light Horse), [illegible] Mounted Rifles), Dr. A. H Hopkins (Cape Colony), and Civil Surgeon A. E. Ross.

THE RESULTS OF SANITATION IN THE AUSTRO-HUNGARIAN NAVY.

The good effects of paying attention to sanitary matters are well brought out by Dr. Okuniewski of the Austro-Hungarian Navy in a statistical report on the health of that service which he has compiled for the years 1898–99. A quarter of a century ago the admissions to hospital from the fleet, ashore and afloat, were equal to 1641 per 1000 of strength, but ever since then the numbers have been steadily going down. During the last decade the sick-rate fell to 643 per 1000, while for the biennium 1898–99 it was only 547 and 467 per annum respectively. The great amelioration thus indicated is due to a notable diminution in most of the preventable diseases. At Pola, for example, which formerly used to be called "the home of fever," the admissions on account of malarial affections have fallen to about 30 per 1000 from upwards of 800, the improvement being partly owing to quinine prophylaxis, but in the main to drainage and other sanitary works. But notwithstanding the gratifying evidence of progress thus afforded there still remains room for sanitary improvement at Austria's chief naval station. Typhoid fever continues to commit sporadic ravages every year amidst the population, civil and militant alike, while periodically the disease is said to attain to the dimensions of an epidemic. In order to combat this unfortunate condition of things several new regulations have been issued having reference to the water-supply and its distribution, the markets, and the disposal of sewage, and it is hoped that their execution will prove effectual in controlling the infection. Amongst the diseases which some years since used to swell the naval sick-list to an inordinate extent but which have now almost completely vanished trachoma, scurvy, and small-pox were the most widespread. In 1879 the first-named affection was responsible for 39 admissions yearly per 1000 of strength, and whole ship's companies used to be placed *hors de combat* by the other two. During the last 10 years, however, scurvy may be said to have entirely disappeared from the naval service, although still prevalent to a considerable extent in the army, while, thanks to a rigorous supervision of vaccination, the sick-rate from small-pox has fallen to 0·2 per 1000. Tuberculosis is far less common now than formerly but it still gives rise to three admissions per 1000 and is likewise blamable for much of the loss by death and invaliding. This continuance of an avoidable disease is regrettable, but the sanitary officials are fully alive to the importance of preventive measures, including a stricter examination of recruits, and in all probability the next few years will see a progressive lessening of all the rates. The disability in the navy from venereal disease has diminished during the last 20 years from 104 to 90 per 1000 of strength, the improvement being ascribed to the infrequency of relapses which has attended on a better system of treatment. In the Austrian army the venereal admission ratio is only 60 per 1000 of strength, and, according to Dr. Okuniewski, a similar disproportion in the incidence of the disorder is observable in the naval and military forces of Germany, England, and Italy. The bacterial laboratory at the Pola Naval Hospital has been the scene of two very interesting discoveries. In the first place it was proved that typhoid bacilli conserve their activity and virulence for a period of 20 days in oysters; and, secondly, the important fact was established that the fermented juice of the grape is very highly inimical to the same noxious microbes. Wine infected with typhoid bacilli was invariably found to be sterile after 24 hours. In concluding his interesting report Dr. Okuniewski draws attention to the excellent results obtained at the dental institution which was recently opened at Pola for the benefit of the navy.

TRANSPORT IN WAR.

We have so frequently called attention to the extreme importance of adequate transport in war that the subject must have become wearisome to our readers. One of the greatest difficulties with which the army and the medical service had to contend in South Africa arose from the deficiency of transport, as anyone may perceive who will read what Lord Roberts has said on the subject in his separate report, which has just been published, on the field transport in South Africa. Nor is the British army the only one that has to encounter the transport difficulty and manifest its shortcomings in this respect. The transport arrangements of the German army have, as we now know by a telegram from Peking, broken down under the test of field service in China, where the fighting has not been severe, and a committee has been appointed by Count von Waldersee to inquire into and report upon the causes. The army organisation of the Germans has been always held up as model. This might probably prove to be the case in a big continental war, but it is quite a different matter where the war is at a great distance in the far East and where the land transport arrangements are partly dependent upon what can be conveyed by shipping from Germany, but chiefly upon what can be obtained in the country which is the seat of war.

LORD ROBERTS'S DESPATCHES.

The commendatory despatches of the late Commander-in-Chief at the seat of war in South Africa which have just appeared in the *London Gazette*, will very naturally be read with great interest by all concerned. The Field Marshal passes in review all the leading officers of the campaign whose names are more or less familiar to the public and gives his estimate of the services which they have rendered, as well as his opinion of the work done by the various branches of the service. Our readers will see for themselves what Lord Roberts, in a somewhat lengthy notice, has to say about the Army Medical Service, the civilian and colonial surgeons, the hospitals, hospital ships, and the nursing element. It will be seen that while Lord Roberts highly commends the Army Medical Service as a whole, and alludes especially to the bravery and devotion displayed by so many of the officers of the Royal Army Medical Corps, his praise is to some extent qualified.

THE FRENCH "RED CROSS" IN CHINA.

The French Red Cross Society has rendered important services to the troops of its own nationality engaged in China. Last August a hospital ship named *Notre Dame du Salut* was despatched into Eastern waters, having on board in addition to its own establishment sufficient *personnel* and equipment for two stationary hospitals on shore, and according to a recent account one of these, for 180 patients, has been opened at Nagasaki. The *Notre Dame du Salut* then proceeded to Taku where it afforded aid to a number of sick and wounded French soldiers and sailors, 253 of whom it subsequently brought back to France. Altogether the number of patients treated at Nagasaki as well as on board the Red Cross hospital ship was 656, but full particulars have not yet come to hand. Two hospital ships belonging to the Japanese Red Cross Society, and named respectively *Hakuai-Maru* and *Rosai-Maru*, have also been doing good work in the Gulf of Pechili.

MILITARY AND NAVAL COOKS.

Lord Roberts has given his special sanction to the troops in London to take part in the Army Cookery Contests at the forthcoming Universal Cookery and Food Exhibition which will be held at Knightsbridge from June 11th to 15th. The troops who will be in the London district at that time and who will consequently take part in the competitions will be the Grenadier, Scots, and Coldstream Guards, and (for the first time) the Irish Guards, and also the Wiltshire Regiment. Sailors undergoing training, or who have been taught at the Nautical Cookery Schools of London, Liverpool, North Shields, and Glasgow, will take part in special naval and mercantile marine cookery competitions. The Mercantile Marine will also be represented by boys from various training ships. This section will be under the direction of Alderman J. F. Spence, J.P., of Tynemouth.

Correspondence.

"Audi alteram partem."

"THE TEACHING OF ANÆSTHETICS."

To the Editors of THE LANCET.

SIRS,—In my letter in THE LANCET of Jan. 19th, p. 212, I expressed regret that Lieutenant-Colonel Lawrie had, under the guise of supporting a movement in favour of the recognition of anæsthetics as a necessary part of the medical curriculum, again opened up the chloroform controversy. I contended that the time had not yet arrived for the discussion of what should be and what should not be taught; and Lieutenant-Colonel Lawrie admits, in his letter in THE LANCET of April 6th, p. 1041, the force of this contention. It will be time enough, when the examining bodies have made some system of instruction compulsory, to inquire into, and possibly extend, the present plan of teaching. But although Lieutenant-Colonel Lawrie fully realises this he cannot resist the temptation of continuing his laudable task of collecting and replacing the numerous fragments of the Hyderabad idol. I can only again express my regret that he should persistently obtrude this mending process upon a weary audience. Were there any real worth in his suggestions one might excuse their prematurity; but I fail to find any such worth. I would even go further than this and assert that the suggestions made by him are positively dangerous, and it is for this reason alone that I propose to criticise at some length the position which Lieutenant-Colonel Lawrie has taken up.

In the first place, Sirs, let me remind your readers that a very important change in what may be termed the standard of anæsthesia has almost imperceptibly come about within the past quarter of a century. To put this change in plain words, I may say that the surgeon of to-day—at all events the surgeon of to-day practising in England—not only requires that his patient shall be rendered rapidly unconscious without inconvenient excitement, but that he shall be kept throughout, even for minor operations, in a state of complete muscular relaxation and immobility. Such are the demands of modern surgery—at all events in this country—and it is the duty of instructors in anæsthetics at our hospitals to send out into practice men who will be able to meet the requirements of the modern surgeon. It is not to be wondered at that this change in the standard of anæsthesia has taken place, for even in comparatively minor operations the surgeon who is particular about his results very naturally requires more at the hands of his anæsthetist than the surgeon who practised when only crude methods of anæsthetisation were known to the profession. The value of the assistance given by skilful anæsthetists in such operations as those of abdominal surgery is fortunately becoming more and more widely recognised. The modern anæsthetist has, in fact, to meet demands created by others. Now this means that the anæsthetic which should be employed by the average medical man must be one which can be given in such a way as to eliminate excitement and to such a profound degree of narcosis that no inconvenient reflex phenomena occur. Chloroform is therefore not suitable, whilst ether fulfils nearly every requirement.

I am amused at Lieutenant-Colonel Lawrie's statements as to the London teaching. He affirms that "in London there is no practical teaching in anæsthetics worthy of the name." Now not only is this statement utterly erroneous (as the letters of Dr. Dudley Buxton and Mr. H. Bellamy Gardner in THE LANCET of April 13th, pp. 1104 and 1105, show), but the author of it asks us in the same breath to revert to modes of anæsthetisation which were in vogue in our student days and which have long since been replaced, thanks to the work of Clover, by more suitable methods. Let us examine the advice so magnanimously proffered to the English anæsthetists. Let us submit this advice to some of our leading surgeons. In one of our journals[1] a few years ago Lieutenant-Colonel Lawrie, speaking of his Hyderabad system of anæsthetisation, made the following remarks:—

> The old prejudice against beginning an operation before the patient is "over" was finally cast aside in 1895, and since then nearly all minor operations have been performed under partial anæsthesia with chloroform ...... it is now established as a routine method of practice. ...... The only drawback to it is that reflex struggling may be set up occasionally on the infliction of the wound, but this is merely a temporary inconvenience which can be removed if necessary by pushing the chloroform until struggling ceases or until anæsthesia is complete.

In a work recently published by Lieutenant-Colonel Lawrie[2] the following significant statement appears:—

> Two or three assistants should always be present when chloroform is given, because in a certain percentage of cases it produces excitement and intoxication and the patient may struggle so violently as to become unmanageable if assistance is not at hand.

Perhaps the cheapness of labour in India may render it possible for a retinue of assistants to accompany every medical practitioner when called upon to administer an anæsthetic; but it is fortunately unnecessary for us in this country to adopt such stringent precautions as Lieutenant-Colonel Lawrie suggests.

Again, let us listen to the directions for anæsthetising young children.[3]

> The way to make a young child breathe regularly is to make it cry by holding the chloroform cap close down over its mouth and nose until it becomes unconscious and quiet.

It is, I think, unnecessary to further criticise the above doctrines; they speak for themselves.

In the next place a few words as to the statistics which I quoted. They were not intended to throw into relief the merits of this or that method of administering any given anæsthetic. But even when ingeniously rearranged in tabular form by Lieutenant-Colonel Lawrie they certainly show all that they were intended to show—viz., the lethal influence of chloroform as compared to other anæsthetics in dental surgery. They were compiled on the assumption, which I still hold to be permissible, that in a given period, say of 15 years, the dental anæsthetic death-rate per 1,000,000 would be about the same in Scotland as in London, provided the same anæsthetic were used; whereas if in Scotland chloroform were, as is the case, the routine anæsthetic, and if in London nitrous oxide and ether were, as is the case, the routine anæsthetics, then any marked differences in death-rates might be fairly ascribed to the influences exerted by the anæsthetics themselves. The appalling influence of chloroform as an anæsthetic in dental surgery is thus clearly illustrated, for there were in the 15 years no fewer than 14 deaths in Scotland (12 of them taking place in association with chloroform), whilst in a corresponding period of time there were only two deaths (both under nitrous oxide) in London; and this direct comparison is fortunately rendered possible by the fact that the population of Scotland was, according to the census returns (average between 1881 and 1891) almost equal to that of London.

With figures such as these it is, to my mind, almost incomprehensible that Lieutenant-Colonel Lawrie should still insist on the safety of chloroform in dental surgery. His contention is that by a combination of Syme's principles, certain Eastern developments of those principles, the presence of two or three assistants, and the establishment of partial anæsthesia the risks of this anæsthetic almost or completely cease to exist. But, as I have shown, the so-called Hyderabad methods, even if there were any real merit in them, would be utterly impracticable in this country. Our requirements are of a totally different order to those which apparently exist in India; and we therefore find it necessary to employ anæsthetics and methods which will meet our needs. Lieutenant-Colonel Lawrie's attitude forcibly reminds me of that which might be adopted by a swimming-master, surrounded by a crowd of admiring pupils each of whom has learnt under the able guidance of his instructor to swim across a shallow river with one foot touching the bottom and assistance within easy call. It is quite clear that a long and unbroken record of successful passages from shore to shore might, under such circumstances as these, be chronicled; but what should we think of such statistics? I must leave the profession to answer this question.

All that Lieutenant-Colonel Lawrie's contributions to the clinical study of chloroform demonstrate is that when given to a partial degree and with a due regard to respiration this drug is safer than it otherwise would be. But is it necessary to beat the big drum to announce this fact? That the chloroform death-rate may be reduced by working upon such lines almost goes without saying, but his crude plans of procedure would certainly not be tolerated in the practice of any leading English surgeon. Some years ago Lieutenant-Colonel Lawrie came with two assistants to the London Hospital and chloroform was administered in the Hyderabad fashion in two straightforward cases. But the type of anæsthesia produced was distinctly inferior to that which may be witnessed any day of the week in the operating theatres of our hospitals. A case presenting greater scope for skill in anæsthetising was prepared for Lieutenant-Colonel Lawrie at University College Hospital, but although the theatre was crowded in expectation of his arrival he failed to put in an appearance.

In summing up this matter I fail to see what there is to be learnt from Lieutenant-Colonel Lawrie's writings. When one realises the simplicity and crudeness of his methods one can readily understand his statement that he finds "a month of clinical teaching more than sufficient to render the average student capable of administering chloroform"; nor, considering the type of his "anæsthesia," is it surprising that he leaves the anæsthetising "to students and nurses of no special endowments."

Interesting as this correspondence has been, I fear I must decline to continue it further, for I cannot conceive that any useful purpose can be served by discussing such inconvenient and obsolete means of anæsthetisation as those advocated by Lieutenant-Colonel Lawrie.

I am, Sirs, yours faithfully,
FREDERIC W. HEWITT.

Queen Anne street, W., April 13th, 1901.

"THE ROYAL ORTHOPÆDIC HOSPITAL."

To the Editors of THE LANCET.

SIRS,—My attention has been drawn to a leading article in THE LANCET of April 6th, p. 1025, with reference to the affairs of the Royal Orthopædic Hospital, which is obviously based upon a letter signed "Hospital Governor" printed in THE LANCET of March 23rd, p. 893.

---

[1] Brit. Med. Jour., July 31st, 1897.
[2] Chloroform, 1901, p. 47.
[3] Op. cit., p. 52.

You have been misled by "Hospital Governor." He is an untruthful person who makes false charges anonymously which he probably will not care to repeat over his own signature. I have never stated that "the value of the hospital site is 30 years' purchase at £1500, or a sum of £45,000." I have never stated (as reported in your leading article) that I obtained my majority by votes specially created "for the purpose of resisting the scheme of selling the site of the hospital."

The opinion of THE LANCET on all hospital matters is of unquestionable value provided that it is based upon accurate information. Such information may be had for the asking if you desire it, and from persons who will be prepared to supply it over their own names. The information of "House Governor" is not accurate and has not been sent to you in the interest of the hospital.

I am, Sirs, yours faithfully,

April 11th, 1901. H. H. MARKS.

⁂ We desire information strongly. We wish to know why the present site of this hospital is being sold.—ED. L.

"LEGISLATION AGAINST NATIONAL INTEMPERANCE."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Feb. 23rd, p. 578, I stated that temperance legislation had been tried on a very wide scale in the civilised world, and challenged temperance reformers to mention a single instance of successful legislation under conditions half as onerous as the least onerous that prevail in England—namely, in Westmorland, where the population is 84 to the square mile. In THE LANCET of April 6th, p. 1040, I referred to that challenge, and stated that I had received no reply and that I anticipated none. I was wrong. Dr. T. S. Clouston has accepted the challenge. He instances Norway. But in Norway the density of the population is only 17 per square mile.[1] In other words, the density of population in Norway is not half but nearly five times less than in Westmorland. Dr. Clouston, therefore, has not observed the conditions of the challenge. Nevertheless, I am willing to waive the point. He states that owing to legislative interference the consumption of spirits has fallen from 16 litres per head to 3 3 in Norway. He omits to mention that the consumption of beer[2] and laddevin[3] has risen enormously. In 1897 in Christiania, the capital of Dr. Clouston's "sober" land, the arrests for drunkenness were 94 per 1000 of the population.[4] In London they were 7 35.[5] In New York 13 in the year 1898.[6] In Chicago 23.[7] In Portland, the capital of the classic prohibition State of Maine, 42.[8] In Boston, which is not a prohibition city, 45.[9] But Boston is surrounded by a prohibition area, whence nearly half its inebriates are derived.[10]

Drunkenness has greatly increased in Norway of late years. Thus in Bergen, the second largest town, the arrests for drunkenness per 1000 of the inhabitants were 12·1 in 1892. In 1899 they were 25 9.[11] The Scandinavian method of temperance reform took origin in Gothenburg, whence its name. In 1895 the arrests for drunkenness in that city were 33 per 1000. In 1899 they were 58 per 1000.[12] The increasing drunkenness of Gothenburg is admitted on all hands except by the inn-keepers and brewers who are interested in the sale of beer.[13] Dr. Clouston's reference to Norway is evidently not happy. Judged by the police returns its inhabitants are drunken to an extraordinary degree. He may, of course, argue that, since conditions vary police returns are fallacious. But consider the case of Portland, where only the drunken *and* disorderly or incapable are now arrested, the merely drunken being too many for police control.[14] Dr. Clouston has appealed to Messrs. Rowntree and Sherwell and I have restricted my reply to their pages. They are "temperance reformers," but, on the whole, their book is the most telling indictment of "temperance reform" that ever yet was penned.

Dr. Clouston would permit moderate drinking, but would suppress drunkenness. His aim is laudable, but unfortunately all attempts to attain it have resulted hitherto only in the suppression of the moderate drinker. The *per capita* consumption of alcohol is easily lowered by the imposition of repressive legislation, but the actual amount of drunkenness generally rises *pari passu.* A more extended study of Messrs. Rowntree and Sherwell's book will afford your correspondent plenty of evidence of this curious and significant fact. The *per capita* consumption of alcohol is very high in the wine countries where the amount of drunkenness is least.[15]

Dr. Clouston states that 99 per cent. of my professional brethren believe that parental drinking is a cause of filial degeneration. I dare say he is right. For years I have protested against the prevailing medical neglect of modern teachings of heredity. Will any member of his great majority supply evidence that parental drinking *does* beget filial degeneration? I personally am prepared to supply conclusive evidence that it does not. I fear I have already exceeded the limits of your space, but there are one or two of Dr. Clouston's remarks that I ought not to leave unnoticed. He says pretty plainly that I advocate the spread of disease and drunkenness. Will he be good enough to supply chapter and verse? He says that I incur a great responsibility and that I ought to be very sure of my ground. I fully recognise the responsibility, but I happen to be very sure. The history of "temperance reform" on the lines advocated by Dr. Clouston embraces almost the whole world, and extends over thousands of years. It is one long record of disastrous and demoralising failure—of failure which has grown more and more immediate and complete with the increasing density of the world's population and the increasing complexity of the world's civilisation. My responsibility is shared by others—by those who continue to advocate methods of temperance reform which were proved impracticable a thousand years ago.

I am, Sirs, yours faithfully,

Southsea, April 14th, 1901. G. ARCHDALL REID.

To the Editors of THE LANCET.

SIRS,—Dr. T. S. Clouston's contributions in THE LANCET of April 6th (p. 1039) and 13th (p. 1103) are in many ways welcome. As pointed out in your leading article of March 23rd (p. 873) your correspondent has made some useful observations recently on the alcohol question and is entitled to a respectful hearing, and he now enters the lists in response to your comparison of him to Sir John Simon and Snow. Permit me, Sirs, to confine my remarks chiefly to an examination of his first letter, the second being a direct challenge to Dr. Archdall Reid himself. Dr. Clouston's opening contention that the alcohol question can and must be solved "through the application of scientific facts and principles" is the fundamental doctrine of the Reid school, which it is a pleasure to find him enunciating for himself. But it is disappointing to find that his scientific facts are entirely elementary. The fact that alcohol is injurious was known to the world thousands of years before physiology became a science and the microscope was invented. Kraepelin's experiments and the details of pathological morphology which constitute Dr. Clouston's scientific facts are interesting as confirming common knowledge, but the public will have nothing but contempt for us as a profession if we now propose action on the ground of these undisputed observations years after a more liberal-minded laity have begun action, if imperfectly, on the ground of common observation and experience. But if it is impossible to discover in Dr. Clouston's letters any other facts which may be called scientific it is easy to point out much argument which has no foundation in science. It is not possible to deal with all of this in the limits of a letter, but one or two points cannot be passed over.

In his first letter (April 6th) we find Dr. Clouston brushing airily aside the only attempt that has been made to deal scientifically with the temperance problem. Dr. Reid's work upon the alcohol question, which includes a scientific study of every aspect of the subject and an indication of a possible road to a permanent solution at last, is thrust away without discussion in the company of transcendental theories of heredity which have nothing to do with the subject, by one who professes to take his stand upon scientific grounds. Dr. Reid's edifice, built upon a solid scientific base, is to be ignored while Dr. Clouston raises flags in exultation over half a dozen loose bricks. *But your correspondent is not content to magnify* the importance of a few physiological experiments and microscopic pathological facts and to proclaim Dr. Reid's work to be of no importance; he goes on to use the vague stock utterances of those to whom nobody looks for scientific enlightenment. What ground has he for the assertion that "adverse hereditary influences" and "toxic interference with the germ plasm," &c., "*make for national decay*"? *How* does he propose to prove that drunkards "hand down a progeny with all their own tendencies accentuated"? If he possesses evidence to prove these statements then, Sirs, once more let us beg that it may be forthcoming. But if, like "M.D., B.S. Lond.," and Mr. A. Marsden, your correspondent shrinks from being hailed the first great discoverer of this century—the discoverer of a transmitted acquired character—I trust that at least he will examine the contentions of Dr. Reid more closely.

---

[1] The Temperance Problem, by Rowntree and Sherwell, p. 471.

[2] Op. cit., p. 476.

[3] Op. cit., p. 475.

[4] Op. cit., p. 487.

[5] Op. cit., p. 677.

[6] Op. cit.

[7] Op. cit.

[8] Op. cit.

[9] Op. cit., p. 158.

[10] Op. cit., p. 318.

[11] Op. cit., p. 483.

[12] Op. cit., p. 461.

[13] Op. cit., p. 463.

[14] Op. cit., pp. 159, 160

[15] Op. cit., p. 613.

Dr. Clouston's second letter, curiously enough, is directly concerned with the doctrines he declares *to be of no account*, but he has exercised his mind during a week only to *collect opinions similar to his own that the acquired effects* of disease and alcohol are transmissible. It ought to be unnecessary to remind Dr. Clouston that preconceived opinions do not alter facts and often must vanish before a scientific exposition of facts; he will find confirmation of this truism in the history of Darwinism and of Listerism and of every epoch-making theory, and also, alas, precedents for his own remarkable attitude. Even in recent times the *opinions* of the medical profession have, despite opposition such as your correspondent now offers, undergone transformation—*e.g.*, regarding the transmissibility of tuberculosis and even regarding the value of alcohol in the treatment of disease. *His* appeal to authority is of no scientific value—nay, it is of no controversial value—in face of the fact that Dr. Reid's views have lived already for over five years and that not one of his arguments has been proved *fallacious* by his crowd of assailants. If Dr. Clouston had read "The Present Evolution of Man" he would *not* have found it necessary to inquire for Dr. Reid's proofs that neither disease nor drink affects the offspring; he will find them in that book founded on Darwinism, on Evolution, which he will remember Huxley pronounced to be no longer a speculation but an historical fact. A study of them will place him in a position to bring forward any conflicting evidence which he may possess or will compel him to go through the painful process of revising his convictions.

The last point to which I must refer is contained in the following sentence: "Another thing the medical profession *is specially fitted* to do, and that is to judge rightly the safe limits of the pleasures and the social and personal amenities which alcohol in physiological quantities may secure, and *to* pick out the persons who can safely indulge in such pleasures." This I take to be a grave statement that Kraepelin's experiments or some other researches which are not specified have conferred on the profession the power to measure with precision the personal equation in regard to alcohol. But we are *left to wonder* how the power is cultivated, whether it is anything more than that possessed by every good judge of character, and how the statement quoted is to be reconciled with the equally emphatic one of those who maintain on the ground of experiment that alcohol is injurious to all men, even when taken in moderation. Why does not Dr. Clouston in the courage of this *conviction propose amongst his* legal *provisions an examination* of every individual at the right age by a board of experts in order to determine this personal equation and issue certificates permitting the proper amount of pleasures and amenities? Perhaps Mr. W. S Gilbert may be induced to supply the omission. It is scarcely necessary to examine in detail the proposals for legal provisions with which Dr. Clouston's first contribution closes. He is no doubt aware, even if he has perused Messrs. Rowntree and Sherwell's admirable work only in a cursory manner, that practically all of his proposals have been tried on a large scale in America, New Zealand, Scandinavia, and elsewhere and have failed dismally; but he advances no reasons why such measures, even when rechristened "scientific," should be successful at home.

Allow me, Sirs, with all deference, to suggest to your correspondent that it is unfair as well as unscientific first to proclaim as of no account, then to condemn on no evidence, and lastly to misrepresent views with which he is not in accord. Whatever may be the characteristics of "the *pursuit of a fatalistic inertia*" nothing can be further from the truth than to suppose that the Reid doctrine implies in *regard to alcohol* that natural selection must be left to take its course, or to suppose that there is any desire to "put a *spoke* in the wheel of health reform and social amelioration." Dr. Clouston *evidently* is *unacquainted* with Dr. Reid's *remedy* just as he is with his facts. The Reid school takes its stand on science, is zealous for the race as well as for the individual, and believes that they may be benefited *together* once the true (and at first sight not obvious) scientific facts are recognised more generally.

I am, Sirs, yours faithfully,
H. LAING GORDON.

Honor Oak road, S E, April 15th, 1901.

To the Editors of THE LANCET.

SIRS,—After Dr. T. S. Clouston's able defence in THE LANCET of April 13th, p. 1103, of the position taken up by me in my letter of March 23rd, p. 892, I need scarcely trouble you with any further remarks in reply to Dr. Reid's onslaught. After reading Dr. Reid's letter I could *only conclude* that he *knew* nothing of the homes of the drunken poor and the lives that their wretched offspring have to *live* and that the lessons of all past sanitary and social reforms have been lost upon him. We have heard of the "ocean and the broom" before, but will *Dr.* Reid *please* tell me if the chances of two young pretty girls growing up into healthy, respectable mothers are the *same*, when you place one behind a bar and the other in, say, his own house, to look after his children? There *seems to* be a difference of point of view in the case of Dr. Reid (and other members of the Society for the Study of *Inebriety*) and that of social reformers. I agree with Dr. Reid *that* if *you surround* a drunkard with public-houses and give him his freedom no legislation will make him sober, but I still maintain that society has the power to limit the creation of drunkards. I am, Sirs, yours faithfully,

April 16th. M.D., B S. Lond.

CONTINUOUS ADMISSION OF AIR DURING ETHER ANÆSTHESIA.

To the Editors of THE LANCET.

SIRS,—Some months ago I pointed out in THE LANCET the ease with which chloroform could be administered from a Clover's ether inhaler when the bag had been *removed*. *Modifying* the *same* idea to the administration of ether, I find that, after inducing full anæsthesia with nitrous oxide followed by ether, it is possible in many patients to *maintain the* anæsthesia with the bag *removed and the* indicator turned nearly or quite on to full. By *so* doing the patient gets a supply of fresh air mixed with the ether at each inspiration, instead of *one* or more inspirations of air at intervals when the face-piece is raised, the patient between these intervals breathing in and out of the bag. *The supply of air is thus* made *continuous* instead of intermittent. The result is that the asphyxiation symptoms of ether anæsthesia are largely avoided, the breathing being comparatively quiet and the face pink instead of cyanosed, these differences being very marked. The method involves the use of a larger amount of ether than when using the bag, but this is more than compensated for by the improved type of anæsthesia.

I am, Sirs, yours faithfully,
C. HAMILTON WHITEFORD,
Senior Anæsthetist, South Devon and East Cornwall Hospital.
Plymouth, April 12th, 1901.

MAJOR-GENERAL BADEN-POWELL'S DESPATCH *re* MAFEKING.

To the Editors of THE LANCET.

SIRS,—The following appears in Major-General Baden-Powell's despatch: "Victoria Hospital (Base Hospital), 70 beds: Major Anderson, R.A.M.C., principal medical officer: Dr. W. Hayes (*acted as P.M.O. during the first part of the siege*), &c., &c." Further on again: "On outbreak of war," the General writes, "I took over the Town Hospital [Victoria Hospital], but at first the administration was *not* satisfactory, on account of the want of supervision over expenses of stores and sanitation. I therefore appointed an issuer and store-keeper and a sanitary inspector, &c., &c." The orders of the day published at Mafeking on Oct. 10th, 1899, contains the following: "*Defences:* W. A. Hayes, Esq., M.R.C.S. Eng., L.R.C.P. Lond., is placed in charge of all medical and ambulance arrangements in connexion with the defences of the town of Mafeking." The orders of the day dated April 30th, 1900, contain the following: "*Appointments:* Owing to the illness of Dr. W. Hayes, Major Anderson, principal medical officer of the Defence Forces [the Protectorate Regiment], will take over charge of the Victoria Hospital with effect from the 27th inst." On April 27th I got severe blood-poisoning and was confined to bed—*that is, 20 days before the siege ended.* From the despatch quoted it would appear that Major Anderson, R.A.M.C., acted as principal medical officer during the greater part of the siege; as a matter of fact, he only acted as such for 20 days.

I am, Sirs, yours faithfully,
W. A. HAYES.

Mafeking, March 21st, 1901.

AUTHORS' AGREEMENTS.

To the Editors of THE LANCET.

SIRS,—The reviewer of the current "Literary Yearbook" in THE LANCET of April 6th, p. 1020, has a right to his opinion that my article on the above subject is "ill-informed"; but you will allow me, I feel sure, to correct him as to a matter of fact. He does me a grave injustice in calling attention to what he considers a damaging omission, where I neglect to mention "the royalty which an author might fairly expect to receive under the royalty system." Need I say that the omission is intentional; that the avowed intention of the article is to consider *forms of agreement* in general—not any particular instance; and that, finally, if I were required to give the "royalty which an author might fairly expect to receive under the royalty system," it would be first necessary for him to submit to me data governing a particular case before I could do so—i.e., "an author's" name, his manuscript, and the name of the publisher considering it. In trade there is no such thing as a fixed, abstract, or "ideal price" for anything irrespective of its market.

May I add that your reviewer has perhaps written in ignorance of the fact that no less than 13 pages of the latter part of this work are devoted to "tables of royalties," from which any person of average intelligence might, without distressing it, have inferred: (1) that an average royalty is 10 per cent., since it comes exactly mid-way between the two extremes—2½ and 20 per cent.; and (2) that, postulating a certain sale for a book at a certain price, an author is at once placed in a position to decide from the results shown on these tables whether a royalty offered him by a publisher affords a fair return for his labour.

I am, Sirs, yours faithfully,
Burleigh-mansions, W.C., April 12th, 1901. CHARLES WEEKES.

⁂ Our reviewer, to whom we have submitted Mr. Weekes's letter, replies as follows: "I had no doubt that the omission of all indication as to what royalties should be expected by an author was intentional. But by the omission the whole section of the article dealing with royalties is rendered useless to authors who are surely concerned in the contents of a literary year-book. The publication of books in general was not apparently being discussed by Mr. Weekes under the royalty system, but only that of fiction (see page 28), a limitation which I pointed out before criticising the article. It should have been perfectly easy for Mr. Weekes to indicate what sort of novel by what sort of author would carry a royalty of 25 per cent., and what writers must put up with 10 per cent., the royalty that he now tells us is an "average" one, whatever that may mean. I knew that the book contained tables of royalties, though Mr. Weekes makes no reference to them in his article. The tables are arithmetical guides, quite useful, but in no way supplying the deficiency in Mr. Weekes's article—a deficiency which, to my mind, stultifies his editor's prefatory promise of impartiality."—ED. L.

SUCCESSFUL OPERATION IN FULMINATING APPENDICITIS.

To the Editors of THE LANCET.

SIRS,—In the report in THE LANCET of April 13th, p. 1083, of a case of appendicitis related by me at the last meeting of the Kidderminster Medical Society it should have been stated that the consultation was held and the operation was performed on the Monday when acute diffuse peritonitis had occurred. Had it been a case of "localised peritonitis," as appears in your report the patient's recovery would not have been remarkable, but the mortality after operation in these fulminating cases is so appalling that successful cases are worthy of record.

I am, Sirs, yours faithfully,
J. LIONEL STRETTON,
Senior Surgeon, Kidderminster Infirmary and Children's Hospital.

Kidderminster, April 14th, 1901.

"GNATS AND MOSQUITOES."

To the Editors of THE LANCET.

SIRS,—My recently published "Handbook" on this subject is out of print, and my publisher has telegraphed to me in India that a reprint, to supply an urgent demand, is necessary. Our knowledge of the life-history and habits of the malaria-carrying species is, however, growing so rapidly that a mere reprint appears to me out of the question—at any rate as regards the first or general part of the work. Will you kindly permit me to state through your columns that a new issue brought as far as may be up to date will be ready in May? I am, Sirs, yours faithfully,
G. M. GILES,
Lieutenant-Colonel, I.M.S.

"POST-PARTUM HÆMORRHAGE."

To the Editors of THE LANCET.

SIRS,—I have been much interested in the graphic paper by Mr. E. Stanmore Bishop on Post-partum Hæmorrhage in THE LANCET of April 13th, p. 1069. Having had an extensive midwifery practice in the past amongst the "well-to-do" I have had what I presume would be considered a fair average number of these bleeders, and I recall my terrible anxiety as to the result even now with a shudder which he so vividly depicts in his paper. These cases would come on regularly time after time in the same people. The labour would be quite an ordinary one, the placenta and membranes coming away without exertion or hurry, the uterus contracted, abdominal bandage put on, and everything seeming right. In 20 minutes' time the uterus would relax and the most alarming hæmorrhage come on. This has been the history of a large number of these bleeders in my experience. It is not necessary for my object to narrate the different methods employed; but though I never had a death from post-partum hæmorrhage it is a marvel to me that none succumbed. When engaged to attend these ladies in a subsequent confinement I knew what would happen and I went in dread—ergot in full doses, hot-water intra-uterine injection, &c., notwithstanding. At last one day, when everything seemed to fail, in desperation I plugged the vagina well up to the cervix, at the same time holding the uterus firmly down into the pelvis. Then having the patient on her back, I fixed a large firm cushion pad, book or pin-cushion, just above the uterus and bound it so firmly by bandage that it was impossible for the uterus to expand. In most cases except in very fat persons this is very easily accomplished. There was no more hæmorrhage. In six hours' time the plugs were removed and the uterus was thoroughly syringed out with lukewarm water till not a trace of clot was visible. No further hæmorrhage resulted in any of these cases. This practice, I am aware, was very much opposed to the teaching of my day, but the result was so good in my first case that ever after when these bleeders were delivered it became my practice always to plug more deliberately and carefully as soon as the labour was completed and to fix down the uterus as I have described, being very careful not to allow more than six hours to elapse before removing the plug. The clots that were then removed were not large, proving that the uterus could not distend. It always seemed to me that the small soft clot of blood which remained stimulated the contraction of the uterine muscular tissue, and that the early removal of clots and plugs prevented the coming on of any septicæmic conditions. Certainly all hæmorrhage was stopped at once by this procedure. Having found such confidence and comfort from this in my own practice, and believing that with adequate cleanliness and antiseptic precautions it will be found a safe method of practice in these terrible and most anxious cases, I venture to ask you to publish this letter.

I am, Sirs, yours faithfully,
Z.

April 15th, 1901.

TITLES OF BOOKS PUBLISHED 1898-1900.

To the Editors of THE LANCET.

SIRS,—We are preparing to publish Volume VI. of the "English Catalogue of Books," 1898-1900, which completes the list of works produced during the century. As we wish to make it as complete as possible, may we ask those of your readers who have published books between Jan. 1st, 1898, and Dec. 31st, 1900, for the full titles, sizes, prices, month and year of publication, and author's and publisher's names, to be sent as soon as possible, addressed to Editor, "English Catalogue of Books,"

Care of yours faithfully,
SAMPSON LOW, MARSTON, AND CO, Ltd.
St. Dunstan's House, Fetter-lane, London, April 17th, 1901.

P.S.—Particulars of books which have already appeared in the *Publishers' Circular* or in the annual volumes of the "English Catalogue of Books" are, of course, not required.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

Increase of the Plague Epidemic.—Success of the Dufferin Fund in Aid of Medical Relief to Women in India.—The Queen Victoria Memorial Fund in India.—Recovery of Medical Fees: a Novel Procedure.

PLAGUE has caused 11,560 deaths throughout India during the past week. The mortality is increasing with alarming rapidity in the Lower Provinces. Of the above total no fewer than 7315 deaths occurred in the Bengal districts. In Calcutta there were 1040 deaths. The plague cases reported in this city were 1199 against 993 during the previous week and the number of fresh living cases seen was 345 Disinfection continues to be extensively practised, not only in respect of the rooms and houses where the cases occur but in many of the adjoining houses. The process adopted consists in flushing the floors and spraying the walls with the standard solution of perchloride of mercury. Cases continue to occur in the disinfected quarters and it is impossible to show that the measure possesses much value. The outbreak in Calcutta now is more severe than that of last year notwithstanding the repeated disinfections which have been practised. As I have before remarked, however, the authorities are apparently able to account for nearly all the plague deaths and the investigations made after death indicate the exact location of the cases. The reported plague deaths in Calcutta nearly account for the excess mortality, and that is more than can be said for any other city. The disease is spreading in Benares and has reached to the cantonment It continues to progress from village to village in the Gardaspur and Sialkot districts of the Punjab. In Bombay city plague has caused over 1000 deaths during the past week. An examination of the total deaths in this city since the plague appeared in 1896 shows an excess mortality over the average of 120,000. The official reports only give 60,000 deaths from plague since its commencement in September, 1896, so that there is a very large balance to be accounted for. If the system adopted in Calcutta had been applied to Bombay it is most probable that the greater part of this excess would have been found to be due to plague, and it is almost safe to say that Bombay city has lost 100,000 of its inhabitants from plague.

The Dufferin Fund has been a great success, and in the sixteenth report just issued is given an account of the medical relief afforded to women in zenana hospitals and dispensaries. Lady Curzon has actively interested herself in the movement and Lady Northcote has given liberally to the fund. There are hospitals which are wholly maintained by the association and others which are aided by the fund or have been started through its agency, and many of the female officers have been assisted in their studies from the fund. Over 247 hospitals were maintained and over one and a half millions of women and children were afforded medical relief during the past year. The hospitals are distributed all over India and some have been started by the liberality of native princes under the auspices of the association. There are no fewer than 373 medical women in various grades now studying in universities, schools, and classes throughout the country. The central provincial and district branches seem to be in a flourishing financial position, as it is stated that between them they possess invested funds of over 22 lakhs. The central committee in controlling this large organisation only spent Rs. 4850 on its entire office charges, which speaks volumes for the economy with which the funds are expended.

The Queen Victoria All India Memorial Fund now amounts to over 26 lakhs. This is on the basis of a maximum subscription of one lakh, but it will be remembered that several of the native princes offered five, 10, and even 15 lakhs apiece. Afterwards it was thought advisable to limit the maximum subscription as plenty of money was forthcoming. The towns and cities in the provinces contemplate having additional memorials of their own, and Delhi proposes to establish a Victoria Hospital for Women.

March 28th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The Birmingham Consultative Institution.

ANOTHER phase in the attitude of the promoters of this scheme has just been displayed. It will be remembered that the present occupant of the post of consultant tendered his resignation some weeks ago, his duties to terminate on May 21st. This was thought by some to be a favourable opportunity for the reconsideration of the position between the profession and the authorities of the institution. No formal move has been made from either side, and nothing has been done beyond general expressions of opinion and a vaguely expressed wish for a friendly discussion. The members of the committee of the profession, at present the same as were originally appointed, have not been approached, though they are quite willing for a conference under proper auspices, such as those of the Lord Mayor of the city. The leading spirit of the movement is still of opinion, he says, that there is a large class between the absolutely poor and the fairly prosperous for whom some provision is required on terms within their means and on conditions which will not offend their self-respect. This pious opinion, therefore, is to constitute the demand which is to regulate the supply, that is, the price at which the consultations are to be fixed—namely, half a guinea each. Again and again it has been pointed out that most of the leading members of the profession are willing to see patients for this amount under certain safeguards as to the genuine position of the patients, any inquiry as to which is repudiated by the powers of the consultative institution. The committee have resolved to continue the institution upon the same lines, and with true commercial instinct as to the power of lucre they have issued advertisements for a consulting physician and a consulting surgeon at a salary of £500 a year each. The holder is to be debarred from general practice, and the requisites in either case are, the advertisement states, a high diploma from one of the Colleges of England, Scotland, or Ireland and hospital and other experience It will be well that any aspirants should view the position carefully and above all that they should consider the honour and interests of their profession as the paramount motives of their lives

Birmingham and Midland Hospital for Women.

The annual meeting of the subscribers of this institution was held on March 21st The report stated that the number of new cases in the out-patient department had been 3323, the total number of new and old cases being 17,744. 427 patients had been admitted to the in patient department—an increase of 23. The total number of operations had been 410—an advance of 26 as compared with last year. The number of cases of abdominal section had been 204, with six deaths The financial statement showed an expenditure of £3045—£208 over the ordinary receipts. It was stated that the enlargement and rebuilding of the hospital were becoming an absolute necessity, and a scheme had been formed for carrying this out. The population of Birmingham and the immediate neighbourhood, it was pointed out, had increased 31 per cent. during the last 20 years, while the number of beds in the hospital had gone down from 22 to 20. Various votes of thanks were passed.

Hospital Saturday Convalescent Homes.

The ninth annual reunion of those who have been patients at the Hospital Saturday Fund Convalescent Homes at Llandudno was held at the Town Hall on April 1st. It was stated that 11,535 patients had, passed through the homes. They were supported entirely by the working men and women of the city after they had presented an annual sum of £10,000 to help to carry on the work of the hospitals in the town. The homes were declared to be unique. They were open first to regular subscribers, but if there were any beds to spare the committee sent down any who were in need of change of air, good food, and rest to restore them to health and strength. An organ recital, a concert by the City Police Band, lime-light views, &c., made up an admirable programme for an evening which was well spent and much enjoyed.

The Housing of the Poor.

It is an acknowledged fact that a large number of the poorest classes live under conditions which are absolutely unhealthy and immoral. Attention has lately been given by philanthropic citizens to the methods best adapted for the relief of those who suffer so much. It is shown that in this city the poor live in self-contained houses, in tenement houses, and in common lodging-houses, and that though much has been done by the Health Committee towards getting insanitary property condemned as unfit for habitation, or properly and adequately cleaned and limewashed, there is still a vast amount to be done. Some legal results are likely to follow the publication of some articles upon this subject reflecting upon the duties and action of the medical officer of health of the city.

April 16th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Sir John T. Brunner and the Eyesight of School-children.

SIR JOHN T. BRUNNER, Bart., M.P., is showing a practical interest in, and sympathy with, school-children suffering from strabismus. He has offered to provide schools with spectacles to alleviate this defect. The offer applies to all elementary schools, board and voluntary alike, in the Northwich parliamentary division.

The City Council and the British Congress on Tuberculosis.

The Corporation of Liverpool have voted 100 guineas towards the expenses of the British Congress on Tuberculosis which is to be held in London in July.

The Annual Report of the Head Constable.

A perusal of the annual report of the head constable reveals a decrease of crime in the city. Crimes of violence (murders, woundings, &c.) numbered only 135, being three less than the very small number in the previous year and exactly one half of the number recorded five years ago. Cases of drunkenness were slightly in excess of last year, the numbers being 4180 as against 4069 in the year 1899. The progressive decrease in cases of drunkenness is shown by the reduction of the number of convictions for that offence since the year 1895, which then reached 5505. Proceedings were taken against 3152 persons for breaches of sanitary laws. There are six fully-equipped police horse ambulances at work, four of which are stationed at the leading hospitals; the services of the ambulances were required 2056 times last year. 1673 constables hold certificates from the St. John Ambulance Association, 1030 of whom have also received medallions. The police rendered first aid in 671 emergencies; splints were applied in 155 cases, bandages in 336 cases, and tourniquets in 11 instances. Artificial respiration was resorted to in 22 cases, whilst emetics were administered 25 times. Other first aid involved 122 cases. 431 constables received special commendation from medical men for valuable first aid. The police were the means of restoring 3060 lost children to their parents. 1636 cases of insufficiently clothed children were inquired into by the police and reported upon to the Liverpool Police-aided Clothing Association. 67 lunatics were taken charge of by the police. The Order of St. John of Jerusalem in England conferred their silver medal for bravery in saving life on land upon one constable. The medal was presented by H.R.H. the Prince of Wales, Grand Prior of the Order, at Marlborough House on July 11th last. The Liverpool Shipwreck and Humane Society have conferred medals on 12 members of the force besides votes of thanks to other constables. The total number of fires attended during the year was 790, as against 882 in the previous year. The authorised strength of the brigade consists of 52 permanent firemen together with 360 auxiliary firemen (police constables), all of whom are trained men and are regularly drilled in the use of fire appliances, &c.

Appointments at the Liverpool Royal Infirmary.

The vacant post of honorary physician to the Liverpool Royal Infirmary has been filled by the appointment of Dr. T. R. Bradshaw, the senior assistant physician. During the last few years Dr. Bradshaw has published original work with regard to the condition to which he had given the name of myelopathic albumosuria, a disease which was quite unknown to the profession until he made known his observations on the subject. A keen contest is anticipated for the vacant post of honorary assistant physician to the Royal Infirmary. There are already nine candidates in the field, all of whom possess qualifications of a high order. Five of the candidates are assistant editors of the Thompson-Yates laboratories reports and have been largely engaged in pathological work.

April 16th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Scottish Vital Statistics.

FROM the statistics for March it appears that the mortality was at the annual rate of 14·5 deaths per 1000 persons in Perth, 16 1 in Leith, 17 9 in Aberdeen, 19·9 in Greenock, 20 0 in Dundee, 20·5 in Paisley, 22·1 in Edinburgh, and 23·2 in Glasgow. Of the total 2968 deaths 1039, or 35 per cent., were of children under five years of age. Miasmatic diseases accounted for 13 3 per cent. of the total deaths. Whooping-cough has the most fatal epidemic influence; it caused no less than 6·0 of the total number of deaths. Small-pox was responsible for 74 deaths; all of these with one exception (in Paisley) occurred in Glasgow. During the previous month the deaths from small-pox numbered 57—in Glasgow 54, in Paisley two, and in Aberdeen one. Measles caused 53 deaths, diphtheria 22, scarlet fever 16, enteric fever 20, typhus fever two, and puerperal fever eight. 13 deaths were registered as due to alcohol, 12 of these being attributed to chronic alcoholism and one to delirium tremens. The deaths certified as due to phthisis pulmonalis numbered 252, or 8 per cent. of the total; other diseases of the respiratory organs (excluding whooping-cough) caused death in 613 instances—a percentage on the total deaths of 20 7 per cent. The deaths from violent causes numbered 96 and included a suicide by cut-throat and one by coal-gas poisoning. Five males and four females were aged 90 years or upwards; one of these, a widow, had reached the age of 99 years.

Glasgow Ophthalmic Institution.

The annual report of this institution, which is now conducted as a branch of the Royal Infirmary, has just been issued. It affords evidence of the increasing usefulness of the institution and would appear to show that advantage has followed union with a larger organisation. The increase in the number of patients compared with the previous year reaches 10 per cent., and the cliniques conducted by Dr. Maitland Ramsay and Dr. J. Rowan have attracted a considerable attendance of students. Indeed, it has been found necessary to extend the class-room accommodation and to make provision for students in attendance on the out-patient department. During the year the electric light has been introduced throughout the whole hospital, to the great advantage both of patients and staff. A Roentgen-ray apparatus and a large electro-magnet have also been supplied, and Dr. John Gilchrist has been appointed electrician in charge of these departments. The operating theatre has been entirely remodelled and fitted up in accordance with the requirements of modern surgery. It is to be known in future as the Overtoun operating theatre in acknowledgment of the fact that its present complete condition is due to the generosity of Lord Overtoun. The ophthalmoscopic room has also found a generous patron who has entirely re-equipped it and who desires to remain anonymous, and the male wards have been re-floored and provided with the most approved pattern of hospital furniture at the expense of Mr. Peter Mackinnon of Ronachan and Mr. Alexander Findlay of Motherwell. The institution has certainly advanced in public and professional confidence in recent years, a result largely due to the medical staff and in some measure also to an improved system of management.

Philosophical Society of Glasgow.

At a meeting of this society on April 10th a paper was read by Dr. H. C. Marr of the Lenzie Asylum on "The Story of the Insane, with Special Reference to Glasgow." Dr. Marr, in the course of his lecture, traced the evolution of the present methods of treating insanity and gave an historical account of the several asylums existing in the neighbourhood of Glasgow, beginning with the town's hospital, founded in 1737. The separate villa system of treatment, as practised at Alt Scherbitz, was also described. In discussing the influence of alcohol as a cause of insanity Dr. Marr remarked that under the Inebriates Act relatively few of the victims of alcoholism were reached, and he urged the adoption of more effective methods to secure the desired end.

Marine Biological Station at Millport.

The authorities in charge of this institution are determined to realise as efficiently as possible the intention of its founder, the late Dr. David Robertson, and to organise a complete scheme of practical and laboratory work for the study of marine biology. On April 10th the committee received representatives from various educational bodies at the station with a view to extend a knowledge of the educational resources at their command. Dr. J. F. Gemmill, the President, gave a sketch of the new teaching arrangements, which include a course of lectures on marine zoology and botany, with practical demonstrations on Saturdays from April 27th to June 15th inclusive, the introductory lecture to be delivered by Sir John Murray, K.C.B., F.R.S. The visitors were afterwards conducted over the laboratories, tank-room, and museum by Dr. James Rankin, and then proceeded on a dredging excursion on the steam-launch *Mermaid*, recently presented to the institution. It is hoped that the new teaching arrangements will encourage the practical study of natural history among board school and other teachers, upwards of 40 of whom have already entered their names for the new classes. The science students in the University of Glasgow also find the station an admirable centre for practical work and the younger dons in the science faculty are energetically assisting in its development.

Small-pox in Glasgow.

The epidemic continues to show a decided decline. The total admissions for the week ending on April 14th numbered 33, and the patients under treatment on that date had fallen to 190. In his weekly report the medical officer submits a tabulated statement showing the proportion of revaccinated persons found in tenements from which small-pox patients were removed to hospital. The figures show that of 2730 persons over five years of age found in infected tenements 1847, or 67 per cent., had been revaccinated prior to invasion. These figures include the whole city. But when particular districts are studied it is found that the proportion of the revaccinated displays wide variations. In 26 tenements in the eastern division it was as high as 83 per cent., whilst in 12 tenements in the northern district it fell to 56 per cent.

University of Aberdeen.

The celebration of "Founders' Day" in connexion with the University was, after a lapse of several generations, revived last week, when there was a series of functions. A dinner, attended by 200 distinguished graduates, took place in Aberdeen Joint Town and County Hall on April 8th, the Very Rev. Principal Marshall Lang, D.D., presiding. A special commemoration service was held in King's College Chapel on the following morning and in the afternoon the graduation ceremony came off in the Mitchell Hall, Marischal College. Five students received the degrees of M.B., C.M. (old regulations), and 23 those of M.B., Ch.B. (new regulations). Six practitioners had the degree of M.D. conferred upon them after examination; and among others Dr. Angus Fraser, M.A., M.D. Aberd., received the honorary degree of LL.D. The same afternoon Lord Aberdeen presided over a meeting held for the furtherance of the extension scheme of the University, and a resolution was adopted whereby a fresh and vigorous movement will be inaugurated with a view to the completion of the buildings and the fuller equipment of the University. In the evening of the same day a brilliant company of about 1000 people was treated to a reception by the principal and professors in the Mitchell Hall. On April 10th the half-yearly meeting of the University General Council was held, and on the 11th there took place the annual meeting of the University Endowment Association, when encouraging reports were presented. The plans of new Greyfriars Church have now been approved by all the bodies concerned.—For the proposed memorial to the late principal, Sir W. D. Geddes, a sum of £950 has been subscribed, and it has been agreed to provide a medallion portrait in marble and a Geddes collection in the University library of works in classical literature and archæology.

Greenock Infirmary.

The following appointments have been made: Dr. J. Nairn to be a visiting physician, Dr. W. S. Cook, to be a visiting surgeon, and Dr. Eric Wilson and Dr. Edward Mackay to the medical staff of the out-patient department.

April 16th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

New Richmond Surgical Hospital, Dublin.

HIS Excellency the Lord Lieutenant has signified his intention of opening the new buildings of the Richmond Hospital on April 20th. They are now completely furnished and ready for the reception of patients, the number of beds at present available being 84, while the scheme allows for considerable extension in the future should the necessity arise. One of the principal features in the hospital is the operating theatre block which is probably one of the most complete of its kind in the United Kingdom. The theatre itself, apart from the various rooms devoted to the administration of anæsthetics and the sterilisation of water, instruments, &c., is a lofty chamber measuring 29 feet long by 23 feet wide. As in the new hospital in Liverpool the ventilation and warming are on the "Plenum system." The cold air is drawn through an air filter of cocoa-nut fibre, over which a spray of fresh water is continually flowing. It is warmed by passing over a calorifier heated by steam, and is then driven by means of a powerful electric fan into the theatre in any required volume and temperature. The vitiated air is extracted by means of a second fan and the whole apparatus is said to be capable of renewing the air of the theatre in the space of three minutes. As to the new wards they are all of the same size, with the exception of those for children—viz., 60 feet by 25 feet by 14 feet.

The Dublin Veterinary College.

The new Dublin Veterinary College, in which Sir Christopher Nixon as its first president takes such a strong interest, progresses favourably under the direction of Professor A. E. Mettam, D.Sc. There are now over 30 students attending its first session at the temporary premises, formerly the Hammersmith Iron Works. It is confidently expected that the new college buildings, which are to cover over an acre of ground in Pembroke Township, will be sufficiently advanced for occupation next year, and that the Veterinary College of Ireland will prove when completed to be one of the finest in the kingdom.

Royal College of Surgeons in Ireland.

At a meeting of the Fellows of the Royal College of Surgeons in Ireland, held on April 15th, Dr. R. Lane Joynt and Dr. P. W. Maxwell were elected members of the council.

North of Ireland Branch of the British Medical Association.

The spring meeting of this branch was held in the Museum, Belfast, on April 11th, the President (Professor J. W. Byers) being in the chair. The President and Dr. J. Tennant read notes of a case of Fever following Child-birth due to Infection of the Genital Tract with the Pneumococcus (Diplococcus of Fraenkel), with details as to the condition of the blood and of the Bacteriology of the lochia.—Professor T. Sinclair reported upon a case of successful Splenectomy and showed the organ removed. This is the second successful case of this nature shown to the North of Ireland Branch, the first having been operated upon by Dr. T. S. Kirk.—Dr. John Campbell read a paper on Retro-peritoneal Hysterectomy with illustrative cases.—Dr. Mandall Byers read notes of a case of Widal's Reaction during Secondary Syphilis.—Mr. G. L. St. George showed a case of Excision of the Elbow of exceptional interest.—Dr. S. T. Beggs and Dr. W. Calwell read notes of a case of Chronic Diarrhœa due to Tuberculous Disease of the Cæcum, and Dr. A. B. Mitchell gave details of the operation performed to relieve the condition—cæcectomy.—Dr. W. Calwell read short notes of (1) a case of Dilatation of the Stomach due to Pyloric Cancer (operated on by Dr. A. B. Mitchell); (2) a case of Cancer of the Cardiac Opening of the Stomach (operated on by Dr. Robert Campbell); (3) two cases of Dilatation of the Stomach in men over 50 years of age, probably due to Pyloric or Duodenal Cicatricial Stenosis; (4) a case of Extensive Adhesion of the Stomach leading to great wasting (operated on by Dr. T. S. Kirk); and (5) a case showing sequence of events—Migraine, Sleepy Dyspepsia, Seborrhœa Capitis, and Rosacea.—Dr. Howard Sinclair showed a case of Pulmonary Tuberculosis in a man. The bacillus tuberculosis had remained absent for three months after sanatorium treatment.—Dr. R. J. Johnstone showed several Pathological Specimens from the pathological laboratory.

Presentation to Dr. E. C. Bigger.

At a meeting in the City Hall, Belfast, over which the Lord Mayor presided, Dr. E. C. Bigger, who was formerly an alderman of the Belfast City Council and physician to the Fever Hospital, was presented by his friends with an illuminated address, a silver salver, and a silver rose-bowl on his leaving Belfast to take up his new appointment as Local Government Board medical inspector.

April 16th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

On a Parasite which has been observed in Syphilitic Patients.

AT the meeting of the Academy of Sciences held on March 25th M. Stassano read an account of a new parasite which he had observed to exist in syphilitic patients. In examining the blood-stained serum which was withdrawn by puncture from the enlarged glands accompanying a syphilitic chancre he noticed some motile bodies, apparently flagellated infusoria, belonging to the monad group. They were round, ovoid, or pyriform and had two flagella, the one straight at one pole and another at the other pole which was much longer and tortuous. In some instances M. Stassano was able to demonstrate a nucleus. These protozoa are, as a rule, free among the cells and leucocytes of the lymphatic tissue, but sometimes they are found attached to the blood corpuscles in the gland. They therefore penetrate into the circulation, but in the early period of syphilis they are very few in number and are found almost exclusively in blood drawn from the border of the lymphatic region which is first contaminated. Little by little they invade the greater circulation and multiply very rapidly by budding. The individual protozoa so formed sometimes remain collected in masses, but at a more advanced stage of infection—i.e., when the eruption is fully out—they separate and attach themselves to the corpuscles. At the same time they grow from either end, which gives them the appearance of trypanosomata, which also, as is well known, attach themselves to the red blood corpuscles. M. Stassano has not yet been able to follow the complete evolutionary cycle of this infusorium, but he is able to state that in the patients whose cases he has studied they are only found coincidently with the appearance of the rash and that they disappear on the patient getting better, whether this amelioration be spontaneous or due to drugs. The biological conditions of this parasite explain the diminution in the number of red blood corpuscles and in the amount of hæmoglobin which is observed at every exacerbation of syphilis, as well as the extreme fragility of the red blood corpuscles which has been noticed by Murri as existing in syphilis.

Serious Occurrence due to Carelessness at a Hospital.

The error of an attendant at the Lariboisière Hospital has brought about the death of one patient and exposed others to serious risk. Dr. Duguet prescribed for a certain number of patients an enema of honey and glycerine. The attendant, however, mistook the bottles and used one containing a solution of chloride of zinc which was kept for disinfecting purposes. After the enemata had been administered six patients were seriously affected and one died on the following day after terrible suffering. The attendant was removed from her office and punished, but Dr. Duguet lays all the responsibility for the accident on the direction of the hospital, for the zinc chloride should never have been mixed up with vessels containing solutions for *tisanes*, enemata, and the like, especially as there was no distinguishing mark upon the bottle containing it. Dr. Duguet himself did not even know of its existence in the ward. Why only one patient died is explained by the following facts. The attendant, finding that her bottle of glycerine did not contain enough, intended, so as to save the trouble of going over to the dispensary, to fill it up with water. For this purpose she took the bottle containing the chloride of zinc under the impression that it contained distilled water. It did not mix with the glycerine, and consequently the patient who died was given an enema consisting of pure chloride of zinc. The others escaped owing to admixture having presumably taken place through the disturbance of the fluid caused by the giving of the first enema.

Mosquitoes in Paris.

M. Debove, in discussing this question before the Academy of Medicine, entreated his colleagues to ask the public authorities for some measures of protection against mosquitoes. These insects during the months of July and August are the source of much inconvenience in many quarters of the city. It is true that up to now they have not been proved to transmit diseases of a grave character, for the particular variety which is a carrier of malaria has not so far appeared in Paris. But those which do exist are the cause of great discomfort, especially to those who live in the well-to-do quarters near the parks or where the mosquitoes find pools and puddles of stagnant water. In these puddles the mosquitoes breed and in 1898 the Committee of Hygiene of the Seine recommended a certain number of preventive measures to be carried out such as the suppression of pools of stagnant water or at least the treating of such pools with a small quantity of petroleum. M. Laveran, whose well-known researches upon intermittent fever have made him an expert in this matter, has associated himself with M. Debove. He considers that it is very disagreeable to be obliged to use, in the heart of Paris, a mosquito net as in tropical countries, if a good night's rest is desired. All collections of stagnant water should be rigorously dealt with, however small they may be. He pointed out that even a bucket filled with water and left in a courtyard would supply a breeding-ground for a number of mosquitoes sufficient to infest a large group of houses. If buckets are carefully emptied the development of the mosquito is put an end to. In squares and public and private gardens there should be no collections of water but only running water, in which the larvæ are unable to develop. If a reservoir of some kind is indispensable it should be closely covered so that the mosquitoes cannot lay their eggs in the water, and if by chance some larvæ should appear they can easily be destroyed by pouring a thin film of petroleum on the surface of the water.

April 16th.

SWITZERLAND.

(FROM OUR OWN CORRESPONDENT.)

Treatment of Syphilis.

DR. HEUSS, lecturer on dermatology at the University of Zürich, has just published his views on this important subject, and though doubtless they will encounter opposition, they are of interest and worthy of due consideration. The following is a short *résumé* of his paper which appeared, in the *Correspondenzblatt für Schweizer Aerzte*, 1901, No. 6. The treatment of syphilis in the initial stage is useless, nay, even harmful. Mercurialisation never acts as a preventive against syphilis, and that for the reason that mercury is a specific only for syphilitic symptoms but not for the syphilitic poison. This bears all the more weight as the diagnosis of syphilis in the primary stage is often impossible and mistakes are not uncommon. Dr. Heuss cannot recommend excision of a primary ulcer even in the earliest stage for therapeutic purposes. He adduces a case in which he excised a tiny wound 10 hours after syphilitic contact and yet syphilis developed in due course. Many other cases can be referred to, such as those recorded by Mauriac Gibier, Lang, Leloir, Wolf, Berkeley Hill, Havas, and others. Only in exceptional cases, such as those which are accompanied by very acute symptoms or complicated by iritis or rapidly increasing ulceration, can he recommend mercurial treatment in the first stage. Dr. Heuss is opposed to chronic intermittent treatment of syphilis for years as recommended by Fournier, as it acts detrimentally on the general health and does not prevent either recurrence or tertiary symptoms. He advocates energetic symptomatic mercurial treatment in the second stage of the disease, to be repeated if symptoms recur.

Bacillus Coli Communis in the Throat.

Dr. Joh. Seitz of Zürich has published a full description of a case of diphtheritic sore throat terminating fatally and due to infection with bacillus coli communis. The illness commenced with a rigor and a temperature of 103° F. Next day the temperature was from 103° to 104° and there was redness of the pharynx and tonsils. On the third day a white adherent thin membrane developed on one tonsil and spread to the other one, the temperature falling to 99° and the pulse rising to 102. The subjective symptoms were those of quinsy rather than of diphtheria, whereas the clinical symptoms corresponded to diphtheria. The glands were scarcely enlarged; the irritation in the throat with salivation and retching was great. The patient was very restless and the case terminated in syncope and sudden death. The bacteriological evidence pointed to bacillus coli communis as the cause of this fatal case of tonsillitis, no diphtheria bacilli developing in the numerous cultures that were made; unfortunately no post-mortem examination could be obtained. Dr. Seitz has never observed a similar case, though he has examined bacteriologically some 400 throat, nose, and ear cases. The assistant at the bacteriological laboratory of the University who makes all the examinations of presumed diphtheritic cases said that the occurrence of *abundant* bacillus coli communis was very rare in the 6000 cases which he has examined. The drains in the house of the patient, whose bedroom adjoined the water-closet, were out of repair and nauseous smells were often observed in the bedroom—a fact which throws light on the etiology of the illness.

Precautions against Plague.

Following the example of the German authorities the Swiss Federal Council has summoned to Berne such of the professors of hygiene and bacteriology and their assistants as can be spared for the purpose of attending a course of lectures and demonstrations. Hygienists of note consider that there is great probability of a spread of plague to Europe during the ensuing summer, and are of opinion that the European Governments should do all in their power to promote prompt diagnosis of the first cases of the disease in order that measures of isolation may be adopted.

April 13th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Emergency Hospital at the Buffalo Exposition.

A HOSPITAL has been erected in the grounds of the Exposition which is to be opened in Buffalo in May. The building has been constructed for the purpose of treating any person who may be injured or taken ill while at the Exhibition, and it is besides a picturesque feature in itself and is in harmony with the general plan of architecture followed by the designers of the Exposition. It is after the style of an adobe mission-house; it has a frontage of 90 feet and the main wing has a depth of 38 feet, with a height of but one storey except in the centre where is placed a square tower with a rounded top. A rear wing one storey high runs back from the centre portion to a distance of 56 feet with a width of 32 feet. The first floor front contains in the extreme western wing two male wards with seven cots each. The eastern wing contains a female ward large enough to hold a dozen cots. The upper storey is intended for the use of the resident physician and attendants. The building throughout is equipped with th[illegible] appliances and water, gas, an[illegible] very part of the building. Dr.

Anti-spitting Movement in New York City.

The Public Health Department of New York City have now for several years issued regulations as to promiscuous expectoration. The fact is generally recognised that the habit is not only extremely filthy and disgusting but that under certain circumstances it may be attended with serious danger to the health of the entire community. The aforesaid regulations apply to public buildings and conveyances, and the infringement thereof renders the offender liable to a heavy fine or a term of imprisonment or both. Latterly small heed has been paid to these orders, and owing to the law not having been enforced against those breaking them they have fallen into disrepute. The consequence of this laxness on the part of the authorities has resulted in a recrudescence of the spitting habit in public places, and especially in the street cars, to the great detriment and annoyance of all decent persons. Now, however, an official crusade is being waged against individuals who, careless of the comfort and health of others, deposit their sputum upon the floors of public buildings and vehicles. By the order of the President of the Board of Health a number of policemen from the sanitary squad, attired in plain clothes, are detailed to ride up and down Greater New York in the elevated trains and street-cars for the purpose of detecting and taking into custody any person of whatever age or sex found expectorating in such conveyances. On the first day when policemen were detached for this duty no less than 19 arrests were made, all of those arrested when brought before a magistrate being heavily fined. The President of the New York City Board of Health declares it to be his intention to keep the entire sanitary squad at work in enforcing the expectoration section of the sanitary code until the people of New York become definitely convinced that sanitary laws were made to be enforced.

Plague in San Francisco.

At last the question as to whether plague has been, and is still, present in San Francisco appears to be decided once and for all. For a long time—in fact, from the time the disease first broke out in San Francisco (as told in a former letter)—there has been friction between the United States Marine Hospital Service officials and the State and municipal authorities. The Governor of California has consistently denied that the findings of Dr. Kinyoun and coadjutors were correct with regard to their assertions that plague was present in the Chinese quarter of San Francisco and he has made use of his position to place obstacles in the way of a thorough cleansing and disinfection of that unsavoury quarter. Unfortunately, too, his contentions have been supported by one of the principal medical journals of the State. Now, however, an explicit statement setting forth the exact conditions of the plague situation in San Francisco has been prepared for the official public health bulletin in which it is shown that there have been 10 deaths from bubonic plague in San Francisco between Jan. 1st and March 15th. The statement says that of the cases reported in February six cases and deaths between Feb. 5th and 12th were reported by the special commissioner appointed by the Secretary of the Treasury to examine into the conditions regarding the plague in San Francisco. This commission consisted of Professor Simon Flexner of the University of Pennsylvania (chairman), Professor F. G. Novy of the University of Michigan, and Professor L. S. Barker of the University of Chicago (recorder). Plague has been reported in San Francisco officially in the public health reports since March 6th, 1900, 32 cases (all fatal) having been reported and published in the previous minutes of the public health reports, and the facts were reported in the annual report to Congress of the Secretary of the Treasury dated Dec. 4th, 1900. On the return of this committee to San Francisco Surgeon White wired on March 22nd that they had agreed to raise funds for immediate work to disinfect all infected houses, to provide hospitals for suspects, a detention house, and a morgue, and for the general disinfection of Chinatown, with betterment of light-space and air-space. Subsequent telegrams show that the work is being organised. The disease has been confined almost exclusively to the Chinese population, and an examination of the mortuary records of the latter for the past four years shows that there has been no time during that period when it has increased to such an extent as in itself to cause alarm. It is well that the National Government has interfered in the matter, and it seems somewhat of a mistake that this step was not taken sooner. If the extirpation of plague in San Francisco means the purification of Chinatown the disease will after all have proved "a blessing in disguise." With the drastic measures recommended from Washington it may be anticipated with confidence that plague will soon be driven out of San Francisco.

April 9th.

Obituary.

GIULIO BIZZOZERO.

FEW men within the comparatively brief term of 55 years have done sounder or more diversified work than Dr. Giulio Bizzozero, professor of general pathology in the University of Turin. Born at Varese in Lombardy on March 20th, 1846, he distinguished himself in classical study at Milan before matriculating at the University of Pavia. There he crowned a brilliant curriculum by taking the "summi in medicinâ honores" in 1866 and was just entering the path of clinical instruction when the outbreak of hostilities with Austria called him, like many other young graduates, to fight for his country under Garibaldi. A few weeks, however, sufficed to bring Austria to terms; Venice was ceded to the House of Savoy and the summer of the same year saw young Bizzozero, bronzed, if not flushed, from the successful campaign, once more absorbed in medical study—filling, indeed, at the age of 21 years the chair of general pathology just vacated by the transfer of Paolo Mantegazza to Florence. The young professor was effective and popular from the first, but he had too high a standard of proficiency to rest satisfied with what Italy could then impart to him. So the close of the session found him at Berlin working in the laboratory of Virchow, working, moreover, with an intelligence and an energy that drew from his great teacher a compliment he never forgot: "Bizzozero, il mio migliore allievo" (Bizzozero, my best pupil). And thus between Pavia and Berlin he continued to perfect himself, till in 1873, when but 27 years of age, he obtained by competitive examination among a host of formidable candidates the professorship of general pathology in the University of Turin, where, with ampler resources and more stimulating opportunities, he began the special studies which have left physiology and pathology so much the richer.

The mere titles of his monographs read before the Turinese Academy of Medicine and afterwards communicated to the sister academies or associations of the world will suffice to show the range and minuteness of his work: "Comparative Studies on the Nemaspermi and the Vibratile Cilia," "On the Automotor Corpuscles," "On Some Alterations in the Lymphatics of the Brain and Pia Mater," "On the Parenchyma of the Pineal Gland," "On the Relations of Tuberculosis of the Dura Mater," "On the Lymphatics and on the Structure of the Serous Tissues in the Human Subject," "On the Transfusion of Blood into the Peritoneum," "On the Production of the Red Globules in the Various Classes of the Vertebrates," and "On the Microphytes of the Normal Epidermis in Man." Not one of these memoirs is less than a model of painstaking, sure-footed induction, while the knowledge so laboriously and honestly acquired he had the art of communicating to young minds with an attractive power and an impressiveness which rewarded the attention he had so skilfully economised. His class-room and laboratory by this time were thronged with pupils from every part of Italy and not a few from abroad—indeed, scarcely a medical school in the Peninsula and islands is without one or more of his assistants on its professorial staff. Be it enough to mention Golgi of Pavia, Manfredi of Pisa, Bassini of Padua, and Bozzolo and Foà of Turin. According to one of these he had, in addition to his rare inductive power, "a lucidity of thought and of expression which reminded his hearers of the English orator."

His constant, his indefatigable work with the microscope had of late years begun to tell on his eyesight, and by the advice, nay, the gentle constraint, of his colleagues he abandoned its use, only, however, to throw himself with fresh energy into a field on which he has left a salutary and enduring mark—State Medicine. "As Beethoven," says a Piedmontese colleague, "after he became deaf still continued to compose, so Bizzozero, with eyes too weak for laboratory work, did not cease to enrich the healing art with masterly contributions." His ardent wish was to help on the regeneration of young Italy, first physically, then morally, inspired as he was by D'Azeglio's saying: "We have made Italy; we have now to make Italians." With this object he laboured hard with Celli and others to limit and finally to stamp out malaria, to antagonise and ultimately to prevent infectious disease, and, as provisional or collateral expedients, to cheapen pure quinine and to regulate the manufacture of serums. In not a few of these undertakings he encountered opposition and incurred controversy, particularly over that "quæstio" so needlessly "vexata"—vaccination. From the first a convinced and enthusiastic promoter of the Jennerian prophylactic, it is mainly due to him that Italy has not fallen a victim to the mischievous propaganda which of all places in the world has its starting-point in England. But his admirable inductive power, aided by a dialectic skill and a lucidity of exposition which his antagonists could not countervail, always left him master of the field. His last work, addressed partly *ad populum*, partly *ad clerum*, was on the etiology and prevention of cancer, now more frequently met with everywhere, Italy included; and he had barely given it to the press when he was struck down with the pneumonia which ever since the "new influenza epidemic" has found, especially in the Italian subject, an easier prey. By the eighth day of its course his resisting power was obviously at an end, and in spite of all loyal old pupils like Golgi, Fcà, Bozzolo, and others gathered round his bed could do he passed away at 8.45 P.M. on April 8th. *Consummavit cursum, fidem servavit;* and a public funeral of exceptional magnitude and solemnity has just attested the grief of his colleagues and compatriots on account of the loss of all that is buried in the grave of Giulio Bizzozero.

IVOR AJAX LEWIS, M.R.C.S. ENG., L.R.C.P. EDIN., J.P.

MR. IVOR A. LEWIS of Cymmer, Porth, died suddenly in the Glamorganshire County Club at Cardiff on April 8th. He had visited the town for the purpose of playing golf at Porthcawl, and returning to the club had not been long at dinner when he was seized with pain and shortly afterwards expired. Dr. Herbert Vachell, who made a post-mortem examination, stated at the inquest, held on April 9th, that death resulted from failure of the heart's action brought on by distension and congestion of the stomach after eating mussel soup, and a verdict was returned to that effect. Some other diners who partook of the soup were in no way affected by it. Mr. Lewis was born at Llantrisant in 1848 and was educated at Bristol Grammar School. He received his medical education at Guy's Hospital and took the qualifications of M.R.C.S. Eng. and L.R.C.P. Edin. in 1875. He commenced practice in Llantrisant and later removed to Abergorky, and 25 years ago he was appointed medical officer to the Cymmer Collieries. Mr. Lewis was also surgeon to the National Collieries at Wattstown. He was awarded in 1877 the bronze medal of the British Medical Association, and was a Justice of the Peace for the county of Glamorgan. Mr. Lewis excelled in many branches of sport. He was an excellent shot, had played cricket for his county, was a formidable opponent at billiards, tennis, and rackets, and was an enthusiastic golf player. He leaves a widow and a family of five sons and six daughters, for whom much sympathy is felt.

Medical News.

UNIVERSITY OF BIRMINGHAM.—At the First Examination for the degree of Bachelor of Medicine and Bachelor of Surgery, held in April, the following candidates passed in the subjects indicated:—

Elementary Biology (Part 1.)—Class I.: Robert Wallace Aitken, William Cook, Alfred Ernest Remmett Weaver, and Frederick Wilkinson. *Class II:* Reginald Hudson Astbury, John Staines Austin, Edwin Lancelot Bunting, Herbert Elwell, Helen Gertrude Greener, Edith Dora Grove, Cuthbert Keay Gettings, Harold Salter, Leonard Leigh Hadley, Richard John James Hawkes, Lionel Chattock Hayes, William Claude Horton, William Cuthbert Houghton, Ernest Henry Kenderdine, Leonard George Joseph Mackey, Vivian Gray Maitland, Henry Percy Pickerill, Horace John D'Arcy Gerrard Price, George Rollason, Norman John Lancelot Rollason, Henry Philip Thomason, Spencer Graham Walker, Bernard Joseph Ward, John Wells, and Edmund Stanley Whitcombe.

Chemistry and Physics (Part 2).—Class I.: William Cook, Cuthbert

Keay Gettings, Richard John James Hawkes, Thomas Holmes Ravenhill, Henry Philip Thomason, Alfred Ernest Remmett Weaver, and Frederick Wilkinson. *Class II.:* Herbert Elwell, Harold Salter Gettings, Joseph Richard Ewart Heseltine, Leonard George Joseph Mackey, Ernest Osborne, and Bernard Joseph Ward.

UNIVERSITY OF DURHAM.—At the first examination for the degree of Bachelor in Medicine held in April the following candidates satisfied the examiners:—

OLD REGULATIONS.

1. *Chemistry, with Chemical Physics.*—Thomas Hill Bailey, L.S.A., King's College Hospital, and John George Hugh Lane, M.R.C.S., L.R.C.P., Guy's Hospital.

NEW REGULATIONS.

1. *Elementary Anatomy and Biology, Chemistry, and Physics.*—Dudley Thomas Birt, College of [illegible] John Arthur Bell, St. Barthelor [illegible] Henry Hugh Croudace, Robert [illegible] Raffle, Robert Rutherford, and Ro[illegible] Medicine, Newcastle-upon-Tyne.
2. *Elementary Anatomy and Biology.*—Herbert Christal and John [illegible] College of Medicine, Newcastle-upon-Tyne.
3. [illegible]
4. [illegible] and Cook's School of Anatomy.

UNIVERSITY OF ABERDEEN.—The following degrees and diploma have been conferred:—

Honorary Degree of Doctor of Laws (LL.D.).—Angus Fraser, M.A., M.D., Aberdeen.

Degree of Doctor of Medicine [illegible] C.M., Brierley Hill, Staffs.; [illegible] es [illegible], M.B., C.M., Harbury, [illegible] ner, M.B., C.M., Beechworth, [illegible] under old regulations].

* Thesis considered worthy of commendation.

Degrees of Bachelor of Medicine (M.B.) and Master in Surgery (C.M.) (Old Ordinances).—Tarcisius Bromilow, Lostock Park, Bolton, Lancashire; Daniel Albert Robert Farquharson, Ballater, Aberdeenshire; Walter James Flett, Findochty, Banffshire; and George Ernest Hugh Le Fanu, Aberdeen.

Degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) (New Ordinances).—†Robert Aird, M.A., Peterculter, [illegible]

† Passed final examination with distinction.

Degree of Bachelor of Science (B.Sc.).—James Addison, M.A., Whitehills (with special distinction in mathematics and natural philosophy); Charles Todd Andrew, Hamilton; Charles Lyall Grant, M.A., Aberdeen (with special distinction in botany); Francis William Gray, M.A., Aberdeen; Arthur H. Mackenzie, Inverness; George Stewart, M.A., Aberdeen, Alexander S. Third, M.A., Aberdeen (with special distinction in chemistry); and Henry Alleyne Varty, Penrith.

Diploma in Public Health.—Norman Davidson, M.B. (Aberd.), Aberdeen; John Charles Galloway, M.A., M.B. (Aberd.), Oyne, Aberdeenshire; Alexander Ledingham, M.A., M.B. (Aberd.), Boyndie, Banff; Charles Murray, M.A., M.B. (Aberd.), Aberdeen; ‡James Ritchie, M.D. (Aberd.), Aberdeen; Alexander MacGregor Rose, M.B. (Aberd.), Aberdeen; Henry Sinclair, M.B. (Aberd.), Cults, Aberdeen; and ‡Alexander Brown Walker, M.B. (Aberd.), Aberdeen.

‡ With credit.

ARTIFICIALLY COLOURED SUGAR.—The public analyst for the county of Gloucester reports that during the quarter ended March last 121 samples of food, &c., were analysed of which 10 were adulterated. Six samples of sugar sold as Demerara sugar consisted of white sugar crystals coloured with a coal-tar dye.

AT the meeting of the Exeter City Council held on April 10th it was decided that Mr. C. E. W. Bell, the police surgeon, should in future receive 10*s.* 6*d.* per man with 3*s.* 6*d.* for the examination of each recruit instead of an annual salary of £30. The increase of salary was granted in consequence of the enlarged radius in which members of the police force now reside.

THE Corporation of London has contributed 100 guineas towards the purposes of the forthcoming British Congress on Tuberculosis in July next.

ON April 16th Mr. John S. Crone, L.R.C.P. Irel., J.P., of Kensal-rise, was re-elected chairman of the Willesden District Council for the ensuing year.

MEDICAL MAGISTRATE.—Mr. Justin McC. McCarthy, M.D. Durh., of St. George's, Salop, has been appointed a Justice of the Peace for the county of Salop.

VAGRANCY IN DORSETSHIRE.—Captain Granville, the chief constable of Dorset, has reported that there were 13,133 admissions to casual wards during 1900—a number fewer by 2617 than in 1899. This was a decrease of 27 per cent.

THE TENBY MEDICAL OFFICER OF HEALTH.—Mr. John Griffith Lock, owing to ill health, recently resigned the position of medical officer of health of the borough of Tenby. He had been annually re-elected since 1872 and was the oldest medical officer of health in Wales and, with possibly one exception, in the United Kingdom.

LITERARY INTELLIGENCE.—Messrs. J. & A. Churchill are issuing this week the sixth edition of Dr. Hale White's Materia Medica. The feature of this edition is that it contains the Materia Medica, Pharmacy, Pharmacology, and Therapeutics of the Drugs in the Indian and Colonial Addendum (1900) to the British Pharmacopœia, 1898.

THE POST OF PUBLIC ANALYST FOR THE CITY OF LONDON.—The Society of Public Analysts has laid stress on the importance of this forthcoming appointment by a letter addressed to the Corporation expressing regret at the terms offered by the Corporation, which, in the opinion of the society, are most inadequate, particularly with respect to analyses of water. The society also takes exception to the encouragement given to a system of competition among professional chemists without regard to a suitable equivalent for their services.

BOOKS, ETC., RECEIVED.

BAILLIÈRE ET FILS, Paris.
Royat: Indications Thérapeutiques méthodiquement classées. By Dr. A. Bouchinet. Price 2 francs.

BLACK, ADAM AND CHARLES, London.
Jerusalem: a *Practical Guide to Jerusalem and its Environs.* By E. A. Reynolds-Ball, B.A., F.R.G.S. Price 2*s.* 6*d.*

CARRÉ ET NAUD, Rue Racine, Paris.
La Grossesse Étude sur sa Durée et sur ses Variations. By Dr. L Bouchacourt. Price not stated.

CLAY AND SONS, Ave Maria-lane, London.
Science and Mediæval Thought. By T. Clifford Allbutt, M.A., M.D., &c. Price 2*s.* 6*d.*

GREEN AND SONS, Edinburgh.
Encyclopædia Medica. Vol. vii. · Liver to Menopause. Price not stated.

HIRSCHWALD, AUGUST, Unter den Linden, Berlin.
Die Herzkrankheiten bei Arteriosclerose. By Professor Dr. S. von Basch. Price 9 marks.

HUBBS, G. O., Waterloo, Iowa, U.S.A.
Transactions of the Iowa State Medical Society. Vol. xviii. Price not stated.

KEENER AND CO., Wabash-avenue, Chicago.
Human Placentation: An Account of the Changes in the Uterine Mucosa and in the Attached Fœtal Structures during Pregnancy. By J. Clarence Webster, B.A., M.D., &c. Price 3.75 dols.

KEGAN PAUL AND CO., Charing Cross-road, London.
Arsenic. By Professor J. Alfred Wanklyn, M.R.C.S. Price 2*s.* 6*d.*

KIMPTON, HENRY, Furnival-street, London.
Nervous and Mental Diseases By Charles S. Potts, M.D. Price 7*s.* 6*d.*
[illegible] By John Benjamin Nichols, M.D., and [illegible] Price 7*s.* 6*d.*
[illegible] Lincoln Ballenger, M.D., [illegible]
[illegible] By Alexander J. C. [illegible] M.D., D.D.S., and [illegible] 6*d.*

Lane, John, Bodley Head, London.
The Column: a Novel. By Charles Marriott. Price 6s.
The Chronicle of a Cornish Garden. By Harry Roberts. Price 5s.

Libraire de Paris, Rue Jacob, Paris.
Comment la Route crée le Type Social. By Edmond Demolins. Price 3 francs 50 cents.

Macmillan and Co., London.
Appendicitis: its Pathology and Surgery. By Charles Barrett Lockwood, F.R.C.S. Price 10s.

Maloine Librairie, Rue de l'Ecole de Médecine, Paris.
Annuaire des Eaux Minérales. Stations Climatiques et Sanatoria de la France et de l'Etranger. Price 1 franc 50 cents.

Methuen and Co., Essex-street, Strand, London.
Diseases of the Heart. By E. H. Colbeck, B.A., M.D., &c. Price 12s.

Murray, John, Albemarle-street, London.
The Natives of South Africa: their Economic and Social Condition. Edited by the South African Native Races Committee. Price 12s.

Pettibone and Co., Chicago.
Transactions of the American Dermatological Association at the Twenty-fourth Annual Meeting held in Washington, D.C., 1900. Price not stated.

Royal College of Surgeons of England.
Appendix XIV. to the Second Edition of the Descriptive Catalogue of the Pathological Specimens contained in the Museum. By Samuel G. Shattock, Pathological Curator. Price not stated.

Smith, Elder, and Co., Waterloo place, London.
Rodney Stone. By A. Conan Doyle. Price 6s.

Treat and Co., West Twenty-third-street, New York.
Pulmonary Consumption, Pneumonia, and Allied Diseases of the Lungs. By Thomas J. Mays, A.M., M.D. Price 3 dols.

Wellby, Philip, Henrietta-street, Covent-garden, London.
The Colour Cure: a Popular Exposition of the Use of Colour in the Treatment of Disease. By A. Osborne Eaves. Price 1s. 6d.

Wilson, Effingham, Royal Exchange, London.
How to Read the Money Article. By Charles Duguid. Second edition. Price 2s. 6d.

Wright and Co., Bristol.
Our Baby: for Mothers and Nurses. By Mrs. Langton Hewer. Seventh edition. Price 1s. 6d.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to The Lancet *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

Benson, P. L., M.D. Dubl., D.P.H. Cantab., has been re-appointed Medical Officer of Health for the Rural District of Buckingham.

Bond, Francis Thomas, M.D. Lond., M.R.C.S., F.R.S. Edin., has been re-appointed Medical Officer of Health for the Chipping Sodbury (Gloucestershire) Rural District Council.

Bothwell, G. Granville, M.B., C.M. Aberd., has been appointed Senior Resident Surgeon to the Memorial Hospital, Bulawayo, Rhodesia, vice J. E. Clayton, resigned.

Bradshaw, T. R., M.D., M.R.C.P. Lond., M.R.C.S., has been appointed Honorary Physician to the Liverpool Royal Infirmary.

Brewerton, Elmore, F.R.C.S. Eng., L.R.C.P. Lond., has been appointed Curator of the Museum and Pathologist to the Royal Westminster Ophthalmic Hospital.

Brown, J. Percival, M.B., Ch.B. Vict., has been appointed House Surgeon to the Hulme Dispensary, Manchester.

Butcher, H. O. F., M.R.C.S., has been re-appointed Medical Officer, No. 2 District, Ware Union.

Bywater, H. H., M.B., Ch.B. Vict., has been appointed Senior House Surgeon, Royal Infirmary, Preston.

Cusse, Ernest, M.R.C.S., has been appointed District Medical Officer, Stockbridge Union, vice J. Clapperton.

Eaton, James, M.R.C.S., has been re-appointed Medical Officer of Health by the Grantham Rural District Council.

Foster, M.B., L.R.C.P. Lond., M.R.C.S., D.P.H., has been re-appointed Medical Officer, No. 1 District, Ware Union.

Fuller, Alfred Leonard, L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Medical Officer for Bath Eastern Dispensary, vice W. H. Cooke, resigned.

Gardiner, A., M.B., C.M. Aberd., has been appointed Certifying Surgeon under the Factory Acts for the King's Lynn District.

Greenwood, A., M.D. Vict., D.P.H., has been re-appointed Medical Officer of Health for the Borough of Crewe.

Hingston, A. A., M.B., C.M. Aberd., has been appointed Civil Surgeon attached to the Army Medical Corps in South Africa.

Jones, F. F., M.R.C.S., D.P.H., has been appointed Certifying Surgeon under the Factory Acts for the Llanfyllin District of the County of Montgomery.

MacDonald, F. B., M.B., C.M. Edin., has been appointed Medical Officer, Royal Infirmary, Preston.

Nuthall, Alex. W., F.R.C.S., has been appointed Resident Surgical Officer to the General Hospital, Birmingham.

Olivey, J. M. A., L.R.C.P. Lond., M.R.C.S., has been appointed District Medical Officer, Poole Union, vice H. W. Scratchley, deceased.

Pallett, T. E., M.D. Brux., has been appointed District Medical Officer, Halstead Union, vice J. Taylor, resigned.

Pierce, R. W. C., M.B., B.Sc. Lond., D.P.H. Cantab., has been appointed Medical Officer by the Guildford Rural District Council.

Thomas, Robert Russell, L.R.C.P. Lond., M.R.C.S., has been appointed Assistant House Physician to the Cardiff Infirmary.

Tuxford, A., M.D. Edin., has been re-appointed Medical Officer by the Boston Rural District Council.

Welch, Charles H., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Medical Officer to the Bath Eastern Dispensary.

Whittington, T. P., L.R.C.P., L.R.C.S. Edin., has been re-appointed Medical Officer by the Neath Rural District Council.

Williams, W. J., M.D. Edin., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer, North Riding Infirmary.

Williamson, J., M.B., C.M. Edin., has been appointed Medical Officer of Health, Surrey United Sanitary District, vice E. L. Jacob.

Worger, R. G., L.R.C.P. Lond., M.R.C.S., has been appointed District Medical Officer, Frome Union, vice T. H. Worger, resigned.

Yeoman, J. B., M.D. Edin., has been appointed Medical Officer by the Wirrall Board of Guardians.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

Barnwood House Hospital for the Insane, Gloucester.—Junior Assistant Medical Officer. Salary £150 per annum (rising to £170 after the first year) with board, &c.

Bradford Royal Infirmary.—Dispensary Surgeon, single. Salary £100 per annum, with board and residence.

Brentford Union.—Assistant Medical Superintendent of the Infirmary and Assistant Medical Officer of the Workhouse and Schools at Isleworth. Salary £100 per annum, with furnished apartments in the Infirmary, rations, washing, &c. Candidates must be single.

Bristol General Hospital.—Assistant House Surgeon. Salary £50 per annum, with board, residence, &c.

Chelsea, Brompton, and Belgrave Dispensary, 41, Sloane-square, Chelsea, S.W.—Resident Medical Officer and Secretary. Salary £95 per annum, with furnished rooms and allowances.

Chesterfield and North Derbyshire Hospital and Dispensary.—Resident House Surgeon. Salary £110 per year, with board, apartments, and laundress.

Chorlton-upon-Medlock Dispensary, Manchester.—Resident House Surgeon, unmarried. Salary £130 per annum, with furnished rooms and attendance.

City of Liverpool Infectious Diseases Hospitals.—Assistant Resident Medical Officer, unmarried. Salary £120 per annum, with board, lodging, and washing.

City of Sheffield Hospitals.—Resident Medical Superintendent. Salary £250 per annum, with board, lodging, and attendance.

Corporation of the City of Cape Town.—Medical Officer of Health. Commencing salary £800 per annum, with additional fees in regard to small-pox, possibly aggregating about £200 per annum.

Cosford Union, Suffolk.—Medical Officer and Public Vaccinator. Salary £52 2s. per annum, with fees.

County Asylum, Prestwich, Manchester.—Assistant Medical Officer, unmarried. Salary £150 per annum, increasing to £250, with board, apartments, and washing.

County Asylum, Rainhill, near Liverpool.—Assistant Medical Officer for about four months. Salary £4 4s. per week, with furnished apartments and board.

County Borough of South Shields.—Medical Officer of Health. The salary will commence at £300 per annum.

County of Lanark, District of the Middle Ward Isolation Hospital.—Resident Physician. Salary £140 per annum, with board, &c.

East London Hospital for Children and Dispensary for Women, Shadwell, E.—Assistant Surgeon.

Farringdon General Dispensary and Lying-in Charity, Bartlett's-buildings, Holborn-circus, E.C.—Resident Medical Officer. Salary £120 per annum, with residence, attendance, coals, and gas, and permission to take resident pupils.

General Infirmary, Leeds.—House Physician for six months. Board, lodging, and washing provided. Also two House Surgeons for one year.

Homes of the National Association for Promoting the Welfare of the Feeble-minded, 53, Victoria-street, London, W.—Honorary Dentist.

Ingham Infirmary and South Shields and Westoe Dispensary.—Junior House Surgeon. Salary £75 per annum, with residence, board, and washing.

Isle of Wight County Asylum, near Newport, I.W.—Assistant Medical Officer. Salary £100, rising £10 yearly to £150, with board, lodging, washing, &c.

Jessop Hospital for Women, Sheffield.—House Surgeon, unmarried. Salary £75 per annum, with board, lodging, and washing.

Liverpool Stanley Hospital.—House Surgeon. Salary £100. Also Third House Surgeon, £70, with residence, board, &c.

London Hospital, Whitechapel-road, E.—Obstetric Registrar.

London Temperance Hospital.—Assistant Surgeon. Honorarium 50 guineas a year.

Manchester Royal Infirmary.—Resident Surgical Officer, unmarried. Salary £150 per annum, with board and residence.

Metropolitan Borough of Lewisham.—Medical Officer of Health and Public Analyst. Salary £800 per annum.

Miller Hospital and Royal Kent Dispensary, Greenwich-road, S.E.—Junior Resident Medical Officer. Salary £80 per annum, with board, attendance, and washing.

National Hospital for the Paralysed and Epileptic, Bloomsbury.—Senior and Junior House Physicians. Salary respectively £100 and £50 per annum, with board and apartments.

[illegible] Local Government Board.

ROTHERHAM HOSPITAL.—Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing.

ROYAL CORNWALL INFIRMARY.—House Surgeon (unmarried). Salary for first year £85, increasing by £10 a year, with board (excluding stimulants) and apartments

ROYAL INFIRMARY, Sheffield.—Vacancy on Honorary Surgical Staff.

ROYAL ORTHOPÆDIC HOSPITAL, 277, Oxford street, and 15, Hanover-square, W. C.—Resident House Surgeon and Registrar, unmarried. Salary £100 per annum, with partial board

ROYAL SEA BATHING [illegible] Surgeon. Salary £60 per an[illegible]

ROYAL SURREY CO[illegible] House Surgeon Salary [illegible]

RURAL DISTRICT OF [illegible]ERTSEY, WALTON-UPON-TH[illegible] [illegible]ficer of Health. Salary £500 per annum

SOM[illegible]

SOU[illegible] per annum, with residence, board, and washing

ST. MARY'S HOSPITAL, Quay-street, Manchester.—Two Medical Officers, Senior and Junior. Salary £70 and £65 respectively, with board and residence

STOCKPORT INFIRMARY.—House Surgeon. Salary £100, with residence, board, and washing Also Junior Assistant House Surgeon for six months. Salary at the rate of £24 per annum, with board, washing, and residence.

SUNDERLAND INFIRMARY.—House Physician and House Surgeon. Salary £100, with board and residence, increasing by £15 annually for three years.

THE CHIEF INSPECTOR OF FACTORIES gives notice of a Vacancy for a Certifying Surgeon under the Factory Acts at Tralee, in the County of Kerry.

WEST HAM HOSPITAL, Stratford, E.—Junior House Surgeon. Salary £75 per annum, with board, residence, &c.

WREXHAM INFIRMARY.—House Surgeon. Salary £100 per annum, with board and washing

Births, Marriages, and Deaths.

BIRTHS.

POWELL.—On April 12th, at Manor Lodge, Upper Clapton, the wife of Herbert P. Powell, M.R.C.S., of a son.

[illegible]reen, London, the [illegible]

[illegible] West Kensington, [illegible], the wife of [illegible] Robert Schofield, M.B. Lond., of a son.

MARRIAGES

DUN[illegible]

GIR[illegible] of Tonbridge Wells

MANNING—FLEMING.—On April 11th, at the parish church, Combe Martin, North Devon, by the Rev H. W. Toms, M.A., rector, and the Rev. F. W. Toms, M.A., N. S. Manning, F.R.C.S., L.R.C.P., Combe Martin, to Winifred Alice, only surviving daughter of Veterinary Colonel G. Fleming, C.B., LL.D., F.R.C.V.S., Principal Veterinary Surgeon of the Army (retired), Higher Leigh, Combe Martin

NEWMAN—YOUNG.—On March 21st, at Abbottabad, Punjaub, India, Captain Ernest Newman, M.D., I.M.S., [illegible]

FEP[illegible] Hall, near Liverpool.

WYLEY—METCALFE.—On A[illegible] Church, Leyburn, by the [illegible]y, assisted by the Rev. T. [illegible] the Rev. John Hawthor[illegible] K. Wyley, vicar of Hellor[illegible] J. Wyley of High Onn, Sta[illegible]ghter of Richard Metcalfe [illegible]

DEATH.

FORBES.—On April 6th, at Nice, William Forbes, M.R.C.S., late of Gippsland, Victoria, aged 69 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

"THE CHURCH MILITANT FOR SANITATION IN HURDSFIELD"

IN THE LANCET of March 17th, 1900, page 817, some account was given of the very insanitary conditions which were allowed to prevail in Hurdsfield, a suburb of Macclesfield. Upwards of 700 houses in Hurdsfield were unsewered, streets were unpaved; a drain carrying sewage was in part of its course uncovered and at times most offensive; road gutters did not communicate with any drains but were fitted with dummy traps and grids; and the "ashpit system" was in vogue, the contents being apparently emptied into the street and then removed This objectionable state of matters, of course, could not exist except by the apathy of the Macclesfield Corporation. Hurdsfield, in fact, seems to be a working-class district—no alderman lives there; one of the residents is a councillor, but he is a recent importation. Notwithstanding the mediocrity of its position from the social point of view Hurdsfield has in its vicar—the Rev. William Laycock—a fearless champion of sanitation, possessed of a fluent pen This gentleman is as zealous for the bodily health as for the soul's health of his congregation, and in the April number of the *Hurdsfield Church Messenger* he justifies his attitude by a reference to the new Bishop of London who has said that God intended a bishop to look after sanitation. He has been unceasing in his efforts to obtain better sanitary conditions for the district, and when his representations had little effect on the Macclesfield Corporation he appealed to "higher authorities," one of which was, of course, the Local Government Board. Some of the results in the way of making sewer connexions, &c., are duly chronicled in the January number of the *Messenger*. A portion of Mr. Laycock's subsequent correspondence with the Local Government Board is published in the *Macclesfield Courier and Herald*, which also mentions that the supineness of the Health Committee is being criticised by another resident of undoubted position Clergymen of Mr. Laycock's energy and public spirit are aids to progress everywhere and their influence is especially beneficial in communities where there is no leisured class interested in local improvements.

RECREATIVE READING.

To the Editors of THE LANCET.

SIRS,—Will one of your reviewers tell me the names of a dozen good novels? Save for a few classics I have read no fiction. I have never had time to do so till lately Will you guide me in my choice and oblige, Yours faithfully,

RETIRED.

*** [illegible] need not answer anyone who asked him for [illegible] confectioner. Then he might decline to answer. We regret to say that that is what we must do.—ED. L.

"PLACE OF RESIDENCE FOR A RETIRED SURGEON."

To the Editors of THE LANCET.

SIRS,—I am able to inform your correspondent "P. P." in THE LANCET of April 13th, p 1118, that I have not found West Bournemouth or Branksome at any time very hot or relaxing, and I had previously to becoming a resident visited here several times, and from experience I should consider the western part of Bournemouth and its neighbourhood suitable for an eastern counties man.

I am, Sirs, yours faithfully,

F. H. A

April 14th, 1901.

THE TREATMENT OF THREAD-WORMS.

To the Editors of THE LANCET.

SIRS,—Will some of your readers kindly suggest a treatment for the following case? A female child, aged seven years, has suffered from "thread worms" for the last four years. All ordinary treatment (such as injections of quassia, salt, &c., with purgatives internally) has failed to cure the complaint. I am, Sirs, yours faithfully,

WORMS.

April 16th, 1901.

BLACKWATER FEVER

IN an article on Blackwater Fever published in the April number of the *Scottish Medical and Surgical Journal* Mr. S. W. Thompstone and Dr. R. A. Bennett state that as far as they can judge from the statistics of Southern Nigeria there is a well marked connexion between the particular season of the year and the number of cases of that disease recorded. Curiously enough, this connexion is the exact reverse of that which obtains in the German Cameroon Colony, although the seasons are practically the same in both tracts of country. F. Plehn, in his monograph on the diseases of the Cameroons, distinctly states that from the beginning of the rains in March to their termination in November the number of cases of blackwater fever steadily grows, to fall suddenly at the onset of the dry season. In Southern Nigeria, on the other hand, the disease is much more common during the dry season than during the rains. It is more frequently met with now than formerly and it varies very much in severity in different years. In one season a dozen cases will occur consecutively without a death, and in another the death-rate may be as high as 20 or 40 per cent. of the cases treated. In the great majority of cases there is no history which throws any light on the predisposing cause, though exposure in a certain number of cases appears to have been the exciting cause of the attack. No case has been recorded among natives in Southern Nigeria since the institution of Government statistics.

"THE SALT CURE."

To the Editors of The Lancet.

Sirs,—In reply to the letter of "S. W." in The Lancet of April 13th, p. 1117, in which he refers to an article in the *Contemporary Review* for March upon the treatment therein called "the salt cure," I should like to call his attention to the fact that the method of Dr. Jules Chéron was introduced to the notice of the medical profession in this country by Mr. Ralph H. Browne at the meeting of the British Medical Association at Clifton in 1894. About the same time Mr. Browne issued a *brochure* on the subject which was published by Messrs. Churchill, and which is, no doubt, still obtainable. The treatment therein described is undoubtedly of great value in many cases of neurasthenia and hysteria.

I am, Sirs, yours faithfully,

Chas. Lloyd Tuckey, M.D. Aberd.

Park-street, W., April 16th, 1901.

"UNPLEASANT ENTERPRISE."

To the Editors of The Lancet.

Sirs,—My head office have directed my attention to the observation under the heading of "Notes," contained on page 1118 in The Lancet of April 13th. After reading your remarks I have come to the conclusion that to a large extent your criticism is a just one, but I am bound to add that I had not the slightest intention of doing anything that would cast a reflection upon the parties referred to in the newspaper extract, and further, I do not think that I have done anything to extend the knowledge of the incident. My desire was simply to tell those who followed similar occupations that any financial risk involved could be covered by insurance, without recognising that the action in question was not raised in a civil court. I will also add that the issue of the letter and newspaper cutting was done on my own responsibility entirely and without the authority or even knowledge of my head office, who, I am bound to add, disapprove my action. I beg you will insert this communication in your next issue.

I am, Sirs, yours faithfully,

A. R. Aldred,

District Manager, Law Accident Insurance Society.

Leeds, April 16th, 1901.

THE EARLIEST PORTRAIT OF HER LATE MAJESTY QUEEN VICTORIA.

There are few households which do not possess some portrait of Queen Victoria. The usual likeness represents her in middle or advanced life, but a miniature showing her as she was when a very little girl is now being reproduced by Messrs. Waterlow and Sons, Limited, for Mr. V. O. Mallan of 106, Edgware-road, London. The miniature is tasteful and pleasing in appearance; it includes the face and upper part of the bust and is mounted in a black circular frame rather less than four inches in diameter. It is the earliest portrait and was formerly in the possession of the Duchess of Kent. In verification of its authenticity it is accompanied by copies of letters written on behalf both of the Queen herself and of the present King when Prince of Wales. On the reverse of the miniature there is a facsimile of a lock of the Queen's hair.

WANTED—A HOME.

To the Editors of The Lancet.

Sirs,—I should be grateful if any of your readers could let me know of a home where a young man who is suffering from diabetes mellitus could be taken in and could receive medical treatment. He can pay a small weekly pension. I am, Sirs, yours faithfully,

New Seaham, Durham, April 14th, 1901. E. J. Howley.

W. G. asks us what is the average cost of residence at Davos Platz for a case of pulmonary tuberculosis? The cost to a man to whom every shilling is of consequence would be very different from that to a man of ampler means. The ordinary patient at an English hotel will spend during his winter residence 20 francs a day, rather more than less, and the sum will include payment for milk, wine, and other obvious extras. For patients of smaller means there are cheap English pensions where the cost would amount to six or seven francs per day, while residence at a cheap Swiss pension would cost a little less than this. Our correspondent may like to know that there is at Davos Platz an invalid home open for ladies and gentlemen of small means where the payment of four to four and a half francs per day covers medical attendance and nursing.

HOSPITAL PRACTICE IN VIENNA.

To the Editors of The Lancet.

Sirs,—I should be glad to know if any of your readers could inform me as to the facilities for hospital practice at Vienna. I want to do some clinical work in medicine and surgery for an examination. I should also feel much obliged for any information with regard to the "coaching" in these subjects to be had there by someone who speaks English. I am, Sirs, yours faithfully,

April 17th, 1901. M. O. H.

Mr. E. J. Reid of 11, Dunedin House, Basinghall-street, London, E.C., has forwarded us a pamphlet relating to all that is known of vasogen and vasogen preparations. The pamphlet has been arranged alphabetically for ready reference by Dr. M. Gallas of Hamburg. The vasogen compounds are of undoubted importance in treatment by drugs and a number of interesting cases of their application are recorded in this pamphlet.

◆

Alienist.—A consulting physician expects to take a guinea as a minimum fee when asked by a brother practitioner to see a case. "Alienist's" proper fee seems to us to depend upon the duty required, the distance of the patient from his house, and the number of visits—points upon all of which we are in ignorance. We cannot suggest with the information before us what charges should be made.

T. J. J.—Professor Clifford Allbutt's article on "Opium Poisoning" in vol. ii. of "Allbutt's System of Medicine" will be found to give a very good account of the habit. There is no separate book so far as we know, but references are given at the end of Professor Clifford Allbutt's article to various papers which have appeared dealing with the subject.

Angina.—In the first position described by our correspondent B's attitude is quite correct. In the second we think he should himself have informed A that it was his intention to take over the treatment of the child on the understanding that the case had been given up by A. This would have given A a proper opportunity of explaining matters.

Eager.—The condition is one to which far too much importance is attached. Our correspondent should consult his family medical man.

G.P. is advised not to administer anæsthetics for an unregistered dentist.

Query.—The man is a complete impostor.

Communications not noticed in our present issue will receive attention in our next.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

The Lancet Office, April 18th, 1901.

Date.	Barometer reduced to Sea Level and 32° F	Direction of Wind.	Rain fall	Solar Radia in Vacuo.	Maximum Temp Shade.	Min Temp	Wet Bulb	Dry Bulb	Remarks at 8.30 a.m.
April 12	29 73	N.N.W	0 34	84	51	40	42	45	Overcast
" 13	29 91	S W.	0·01	57	50	39	40	44	Cloudy
" 14	29 73	S.W.	0 17	80	56	41	45	46	Cloudy
" 15	29 44	N.W.	0·11	98	52	45	44	45	Cloudy
" 16	29·43	N.W.	0 03	88	48	39	42	45	Cloudy
" 17	30 15	NNE	0·08	93	56	38	40	44	Fine
" 18	30·26	S.W.	...	87	58	43	43	46	Overcast

During the week marked copies of the following newspapers have been received:—*Macclesfield Courier, Hampshire Advertiser, Blackburn Standard, Birmingham News, Glasgow News, Dundee Advertiser, Sheffield Daily Telegraph, Somerset Gazette, Middlesex Advertiser, Bridge of Allan Reporter, Wigan Examiner, Express (Cardiff), Western Mercury (Plymouth), Leeds Mercury, South Wales News, Lincolnshire Times, Dunfermline Journal, Oxford Journal, Essex Herald, East Anglian Times, Architect, Times of India, Pioneer Mail, Builder, Scotsman, Liverpool Daily Post, Citizen, Yorkshire Post, Bristol Mercury, Keble's Ramsgate Gazette, Cambria Daily Leader, Bath Weekly Argus, Malden Express, Lancaster Guardian, Rugby Advertiser, Brisbane Courier, Town and Country Journal (Sydney), City Press, Mining Journal, Local Government Chronicle, Hertfordshire Mercury, Reading Mercury, Surrey Advertiser, Colchester Mercury, Blackpool Times, Kentish Observer, Stratford Express, South African News, Derbyshire Courier, Derbyshire Times, Staffordshire Sentinel, Shifnal Advertiser, Folkestone Chronicle, Highland News (Inverness), Tooting Herald, Review of the Week, Consett Guardian, Shrewsbury Chronicle, &c., &c.*

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (22nd).—London (2 P.M.),
Thomas's (3.30 P.M.), St. George
Middlesex (1.30 P.M.), Westmin
Samaritan (Gynæcological, by
(2 P.M.), Royal Orthopædic (2
Gt. Northern Central (2.30 P.M.),
Throat (2 P.M.).

TUESDAY
(1.30 P.
minster
(2 P.M.)
(2.30 P.
(2 P.M.
2.30 P.M.).

London Throat (2 P.M.), Cancer (2 P.M.).

THU
logical, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

FRI

SAT
London Throat (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MO

TUESDAY (23rd).—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Papers:—Mr. W. G. Spencer: Arterial Hæmorrhage from the Ear and its Control by Ligature of the Common Carotid Artery.—Dr. A. G. Phear: A Case of Acute Leukæmia.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN (17, Bloomsbury-square, W.C.).—8 P.M. Paper.—Mr. E. M. Holmes: Recent Additions to the Museum.

WEDNESDAY (24th).—HUNTERIAN SOCIETY (London Institution, Finsbury-circus, E.C.).—8.30 P.M. Paper:—Mr. C. Worth: The Modern Treatment of Convergent Squint.

THURSDAY (25th).—DERMATOLOGICAL SOCIETY OF GREAT BRITAIN
Exhibi-
B
—8 P.M.
Retro-
Radical
Jessett,
Dr. Elder, Dr. H. Smith, Mr. W. D. Spanton, and Mr. M. Lawrie will take part in the discussion

FRIDAY (26th).—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Exhibition of Clinical Cases, followed by Discussion. Patients will be in attendance from 8 P.M. to 9 P.M.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (22nd).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. J. Galloway: Consultation. (Skin.)

TUESDAY (23rd).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Sir Wm. Broadbent: Consultation. (Medical.)

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Dr. A. Macfadyen: Cellular Physiology, with Special Reference to Enzymes and Ferments.

WEDNESDAY (24th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. R. Harrison: Consultation. (Surgical.)

THURSDAY (25th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Consultation. (Surgical.)

ROYAL BRITISH NURSES' ASSOCIATION (10, Orchard-street, W.).—5.30 P.M. Lecture.—Mr. R. Greene: Ancient Medicine and Ancient Medical Men.

FRIDAY (26th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. StClair Thomson: Consultation. (Throat.)

ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Dr. Hans Gadow: Colour in the Amphibia.

SATURDAY (27th).—ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Mr. J. Y. Buchanan: Climate, its Causes and its Effects.

EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six Months...	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, MR. CHARLES GOOD, THE LANCET Offices, 423, Strand, London, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

Communications, Letters, &c., have been received from—

A.—Mr. R. Ackrill, Harrogate; Dr. C. H. Allen, Nottingham; Messrs. Ayrton and Saunders, Liverpool; Association for Pure Vaccine Lymph, Lond.; Messrs. Allen and Hanburys, Lond.; A. J. R. O.

B.—Dr. Bygott, Birmingham; Mr. E. Blackett, Lond.; Messrs. Bale and Danielsson, Lond.; Mr. F. Paul Bush, Clifton; Messrs. P. B. Burgoyne and Co., Lond.; Bayer, Ltd., Lond.; Miss A. Belcher, Wednesbury; Barnwood House Hospital, Gloucester, Medical Superintendent of; Dr. R Browne, Lond.; Mr. T. V. Bell, Enniskillen; Messrs. C. Barker and Sons, Lond.: Bristol General Hospital and Dispensary, Secretary of; Birkbeck Bank, Lond , Manager of; Dr. C. Bacon, Lond.; Birmingham University, Dean of.

C.—Mr. J. Carson, Theydon Bois; Carnos, Ltd., Great Grimsby; Cortland Wagon Co , Lond.; Messrs. Cassell and Co., Lond.; City of Sheffield, Town Clerk of; Mr. T. J. Croke, Hull; Consultative Medical and Surgical Institution, Birmingham; Cantab, Lond.: Dr. E O. Croft, Leeds; Mr. F. V. Chalmers, Snaresbrook; Cambridge University, Registry of; Chesterfield, &c., Hospital and Dispensary, Secretary of; Mr. J. Colam, Lond.; Mr. A. H. Cheatle, Lond.

D.—Mr. F. Davidson, Lond.; Dr. Deanesley, Wolverhampton; Dr. A. Davidson, Dorchester; Messrs. J. Defries and Sons, Lond.; Messrs. Dunville and Co., Belfast: Dr. J. P. Dee, Walton-on-the Naze; Dr. W. Davis, West Clarkfield, U.S.A.

E.—Dr. G. L. Easter, Lond.; Eager, Newcastle-on-Tyne; Dr. Elkind, Lond.

F.—Mr. J. M. Forster, Chathill; Messrs. Fletcher, Russell and Co., Warrington; Mr. R. Freeman, Lond.; F. R G.

G.—Dr. W. H. Gregory, Beverley; Mr. J. Gannon, Lond.; Mr. E. T. Grün, Brighton; Messrs. Greenham and Co., Shanklin; Dr. H. Laing Gordon, Lond.; G. P., Lond.; General Medical Council Office, Lond., Registrar of.

H.—Mr. Whistler Hanson, Lond.; Dr. L. K. Herschel, Bordighera; Howard Association, Secretary of; Mrs. H. Harvey, Exeter; H. T.; Haydock Urban District, Medical Officer of Health of; Dr. F. Hewitt, Lond.; Dr. W. Hunter, Lond.; Mr. A. Helbig, Lond.; Mr. J. Hart, Lond.; Hon. Sydney Holland, Lond.; Rev. H. Hawkins, Lond.; Mr. Hutton Haylor, Lond.; Mr. P. R. Humphreys, Lond.

I.—Dr. W. A. Illingworth, Leamington Spa; Ingham Infirmary, South Shields, Secretary of.

J.—Dr. J. D. Jenkins, Pentre; Dr. T. J. Jamieson, Mountain, Ont.; Miss Frances Johnson, Lond.

K.—Mr. J. E. S. King, Lond.; Mr. W. B. Kerr, Newcastle-on-Tyne; Mr. H. Kenwood, Lond.; Messrs. R. A. Knight and Co , Lond.

L.—Liverpool Stanley Hospital, Secretary of; Leeds General Infirmary, Secretary of; Messrs. Sampson Low, Marston, and Co., Lond.

M.—Messrs. Masson et Cie, Paris; Maltine Manufacturing Co., Lond.; *Medical Echo*, Budapest, Editor of; *Medical Review*, Lond.; Manchester Royal Infirmary, Secretary of; Macclesfield, Medical Officer of Health of; Messrs. E. Marlborough and Co., Lond.

N.—Mr. J. O. Neumann, Lond.; Dr. W. Newman, Stamford; Mr. F. C. Needes, Lond.; Mr. H. Needes, Lond.

O.—Sir Francis Osborne, Lond.

P.—Mr. Y. J. Pentland, Edinburgh; Messrs. Parke, Davis, and Co.; Lond.; Messrs. Philip, Son, and Nephew, Liverpool; Prince of Wales's Hospital Fund for London, Hon. Secretaries of; Mr. F. E. Potter, Lond.; Mr. W. Parson, Godalming; Messrs. Peacock and Hadley, Lond.; Dr. L. A. Parry, Brighton.

R.—Dr. Arthur Roberts, Harrogate; Mr. E. J. Reid, Lond.; Messrs. Robertson and Scott, Edinburgh; Royal Cornwall Infirmary, Truro, Secretary of; Messrs. J. Robertson and Son, Dundee; "Regions Beyond" Missionary Union, Lond.; Royal Surrey County Hospital, Guildford; Registered Nurses' Society, Lond., Secretary of; Dr. Archdale Reid, Southsea.

S.—Mr. R. Smith, Glasgow; Dr. Arbour Stephens, Swansea; Dr. T. Wilson Smith, Bath; Messrs. W. H. Smith and Son, Manchester; Sanitas Co , Lond.; Messrs. Street and Co., Lond.; St. Mary's Hospital, Manchester; Southport Infirmary, Secretary of; Dr. J. Santelli, Montreuil, L'Argillé, France; South Shields Corporation, Secretary of; Dr. Salzbergen, Landshut; Messrs. W. H. Smith and Son, Liverpool; Messrs. Squire and Sons, Lond.; Scholastic, Clerical, &c., Association, Lond.; Messrs. H. C. Scales and Co., Lond.

T.—Dr. F. W. Tunnicliffe, Lond.; Mr. C. Truan, Chacewater; Dr. Bell Taylor, Nottingham; Mrs. H. B. Tarry, Lond.; Dr. A. Turnbull, Lond.; Mr. P. Turner, Lond.

U.—University College, Bristol, Secretary of; Uralite Co., Lond.

V.—Mr. J. W. Vickers, Lond.

W.—Dr. J. R. Whitaker, Edinburgh; Wrexham Infirmary, Secretary of; Willenhall Urban District Council, Medical Officer of Health of; Wills, Ltd., Lond.; West Ham Hospital, Stratford, Secretary of; Messrs. C. H. and J. W. Willmott, Lond.

Letters, each with enclosure, are also acknowledged from—

A.—Miss Atkinson, Shanklin; Messrs. Armour and Co., Lond.; A. B , Brockenhurst; A. H. P.; A. W. H. L.; A J. M.; A. A. M.; A. W. B.; A. A.

B.—Mr. J. H. Booth, Chesterfield; Lieutenant-Colonel P. H. Benson, Mysore; Mr. L A. Bidwell, Lond.; Bedford County Hospital, Secretary of; Mrs. B., Lond.; Mr. J. M. Bennetts, Truro; Birmingham Free Hospital for Children, Secretary of; Borough of Richmond, Clerk of; B. J.; Mr. C. B. Baxter, Shrewsbury; Dr. M. Benson, Wigan.

C.—Mr. J. M. Carvell, Catford; Mr. J. M. Chambers, Llandudno; Cardiff Infirmary, Secretary of; Messrs. Samson Clark and Co., Lond.; Crooksbury Sanatorium, Secretary of; C. W. B.; Capsuloid Co., Lond.

D.—Mr. W. W. Davies, Bristol; Messrs. Darton, Gibbs, and Co., Oldbury; Mr. E. C. Dean, Bridgetown, Australia; Herren G. L. Daube and Co., Frankfurt; Dover Hospital, Secretary of; Mr. T. Dixon, Lond.; D. W. P.; D. W.

E.—Dr. W. Ewart, Lond.; E. B. H.

F.—Messrs. Ferris and Co., Bristol; Mr. G. Fleming, Combe Martin; F. W. E. H.

G.—Mr. J. Gray, Edinburgh; Messrs. G. Gale and Sons, Birmingham; G. V.; Mr. H. E. Girdlestone, Bournemouth; Mr. L D. Gadre, Nagpur; Mr. H. L. Gill, Halifax.

H.—Mr. J. J. Harding, Ballincollig; Mr. T. Homer, Laxey; Heigham Hall, Norwich; Miss Halford, Lond.; H. J.; Dr. W. T. Harkness, Hetton le-Hole; Hull Corporation, Treasurer of; H. C. W.; H. W. C.

I.—*Irish Homestead*, Dublin, Editor of.

J.—Jessop Hospital for Women, Sheffield, Secretary of; J. H. B ; Messrs. Jewsbury and Brown, Manchester; J. R. H. O.; J. C. J.; Mr. S. James, Gwauncaegurwen; Mrs. James, Lond.; Mr. A. Jolly, Chorley; J. R. P.; J. M. F.; J. M. C.

K.—Miss Kennedy, Ballymoney.

L.—Dr. P. W. Latham, Cambridge; Mr. K. Lal, Aminabad, India; Mr. H. K. Lewis, Lond.; Mr. L J. Levi, Lond.; Mr. W. H. Legat, Bolton; L. R; Messrs. Lee and Nightingale, Liverpool.

M.—Mr. W. McCrea, Balfron; Mr. J. McMurtrie, Glasgow; Metropolitan Borough of Greenwich, Accountant of; Mr. E. P. Marett, Avranche, Jersey; Dr. R Metcalfe, Leyburn; M. H. H.; M. D., Liverpool; Dr. McC.; Miss Martin, Exmouth; Mr. R Moore, Launceston; M. E. W.; Messrs. Matthews Bros., Lond.; M.D , L.R.C.P., Ealing; M. S. D.; Mr. Macbeth, Liverpool.

N.—Messrs. Neyroud and Son, Lond.; Dr. R. Niven, Lond.

O.—Omega, Lond.

P.—Mr. C. E. Priestly, Lond.; Messrs. C. Pool and Co , Lond; Dr. W. H. Price, Worsborough Bridge; Mr. J. Pond, Norwich; Mrs. M. R Peters, Lond.; P. P.; Dr. E. J. Parry, Pontycymmer; P. S. W.

R.—Mr. F. G. A. Rogers, Cardiff; Royal Isle of Wight Infirmary, Ryde; R. W. J.; R. M.; R. F. S.; Mr. H. Rainbird, Saxilby; Mr. R. Redpath, Newcastle-on Tyne; Dr. T. H. Rockwell, Lond.; Mr. R Rogers, Lond.; R. M. H. W., R. C. R.; R. C.

S.—Mr. B. W. Sanders, Kingsland; Mr. H. Smith, Farningham; Mr. A. Scarborough, Halifax; Mr. H. W. Stanley, Lond.; Dr. S. R. Schofield, Lond.; Statim, Neath; Mr. A. Smyth, Tonbridge; Dr. G. A. Sutherland, Lond.; St. Bartholomew's Hospital, Rochester, Secretary of.

T.—Dr. R. Thurnam, Blagdon; Mr. J. Thin, Edinburgh; Dr. T.; Torbay Hospital, Torquay, Secretary of.

V.—Vinolia Co., Lond.

W.—Mr. L. Whitaker, Leeds; Mr. G. E. Wherry, Cambridge; Messrs. Wilcox and Co , Lond.; Messrs. Wilson and Valdespino, Lond.; Miss Woodward, Lond.; Whitehaven Infirmary, Matron of; W. H. G.; W. S. R.; Messrs. J. Wright and Co., Bristol; Messrs. H. Wilson and Son, Lond.; W. J. R.

EVERY FRIDAY. **THE LANCET.** PRICE SEVENPENCE.

SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.			
One Year	£1	12	6
Six Months	0	16	3
Three Months	0	8	2

TO THE COLONIES AND ABROAD.			
One Year	£1	14	8
Six Months	0	17	4
Three Months	0	8	8

Subscriptions (which may commence at any time) are payable in advance.

ADVERTISING.

Books and Publications ...	Seven Lines and under	£0	5	0
Official and General Announcements	Ditto	0	5	0
Trade and Miscellaneous Advertisements	Ditto	0	4	6
	Every additional Line	0	0	6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.

Terms for Position Pages and Serial Insertions on application.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France,—J. ASTIER, 8, Rue Traversière, Asnières, Paris,

A Clinical Lecture

ON

THE SOMETIMES SUCCESSFUL TREATMENT OF CASES OF APPARENTLY INCURABLE BLINDNESS.

Delivered before the Nottingham Medico-Chirurgical Society on Nov. 21st, 1900,

By CHARLES BELL TAYLOR, M.D.,
F.R.C.S. Edin.,
HONORARY SURGEON TO THE NOTTINGHAM AND MIDLAND EYE INFIRMARY.

Mr. President and Gentlemen,—It has been my good fortune on many occasions to restore sight to persons who were believed to be incurably blind, and as this end has been attained by means which are not usually adopted in the treatment of such cases it seems desirable in the interests of science and humanity that some mention both of cases and treatment should be placed upon record. Of course, it is not possible within the limits accorded to speakers on these occasions to do more than outline a few clinical histories, but sufficient will be said to show the vast importance of the subject and the marvellous results that may be now and then obtained. The cases comprise patients who have recovered after many years of apparently hopeless blindness, others who have suffered from, and under treatment have recovered from, the effects of neuro-retinitis, iritis with diffuse scleroderma, hyalitis, detached retina, atrophy of the optic disc, and the results of destructive inflammatory and degenerative changes. As to remedies outside the usual routine I should certainly place electricity, static, faradaic, and galvanic first; mercury, in large doses, either alone or in combination with other drugs second; derivatives, vascular, nervous, or both, third; and lastly, persevering treatment on these lines, with such operative procedures as may be indicated in each individual case, so long as there is the least chance of benefit or any eye left to be operated on. I propose to say a few words under each of these heads and to cite such cases as may serve to illustrate my meaning.

First, with regard to electricity, static, faradaic, and galvanic, I think that there can be no doubt that the profession is too much disposed to look askance at the employment of this remedy in the treatment of a variety of diseases; specially is this the case with regard to diseases of the eye; but the eye is really, from its watery constitution, its aqueous and vitreous humours, and consequent great conductivity admirably adapted for treatment of this kind; indeed, it is so easy to pass a current through the eyeballs along the optic nerves to the brain that one cannot but wonder why such obvious treatment should be neglected, while prominence is given to the administration of tonics and nerve stimulants which cannot possibly "touch the spot" as this remedy does and which have always failed to produce equally good results. I suppose this is due to the fact that those who are engaged in the treatment of diseases of the eye do not as a rule trouble themselves very much about electricity, while those in charge of the electrical departments of our great hospitals seldom or never see a case of eye disease; however that may be we must all acknowledge our great indebtedness to electricity, in the form of the Roentgen rays for instance, which, although it was discovered 40 years ago, has recently come upon us as a revelation, not only as an illuminant, but also as a therapeutic agent of the greatest value. Again, no one can fail to appreciate the charming results obtainable by electrolysis in angiomata, in inoperable tumours, adenoids, granular lids, and other abnormal growths. As a cautery, cataphoric agent, illuminant of internal cavities, destroyer of bacilli, heat and ozone producer, it is certainly without a rival, and the electro magnet, both as a sideroscope and extractive agent, is indispensable in the treatment of accidents which are of daily occurrence. Again, no doubt can be entertained as to the value of the galvanic and faradaic currents in case of corneal ulcers and opacities, neuro-paralytic keratitis, and in cases of paralysis, both partial and complete, of the ocular, facial, and other muscles; all this goes without saying, but I go further still. I claim for this subtle agent a potent influence upon living protoplasm, a restorative substitute, not only in cases of result of injury with its accom but also in neuritis and degenerative changes such as accompany and follow upon attacks of influenza, diphtheria, diabetes, typhus, typhoid, rheumatic, and other fevers; as a stimulant, tonic, and catalytic agent in these cases it is undoubtedly of the greatest value, and it is our *dernier ressort* in cases of atrophy of the optic disc, neurasthenia, asthenopia, failure of brain power, and general nervous declension, such as is observed at the menopause in women, or as a result of advancing years or exhausting diseases, or the abuse of alcohol, lead, and tobacco in persons of both sexes; of course, one cannot always succeed, that were to ask too much, but succeed or half succeed, or succeed not at all, you will, if you use this remedy, since hope is so potent a tonic, often do good in cases apparently beyond the reach of art, and now and then you will come across a case in which the effects are truly marvellous. Here is one. This patient, when 35 years of age, was sent to Nottingham in order that he might be taught a trade in the blind asylum; he had lost his sight in consequence of a severe attack of optic neuritis, and when I first saw him the discs were white and blurred and he could not tell night from day; he had been treated with the usual remedies without benefit and the case seemed hopeless. I nevertheless persuaded his friends to bring him to me daily, and sometimes twice a day, on which occasions I applied as powerful a galvanic current as could be borne. At first there was no change and I concluded that the case was hopeless; nevertheless, I determined to persevere a little longer and then improvement set in. First he saw the light, then a little more and a little more, day by day, until at last, to my great joy, I saw him one morning, with uncertain gait, stagger past my window without a guide. Sight continued to improve until he was able to resume his former occupation of coach painter and he can now (12 years later) read the newspaper in a bad light and his distant vision is perfect. This patient has been examined by eminent ophthalmologists and the traces of the disease from which he has suffered are still plainly visible. I have quite a number of cases which have been benefited by the use of the same remedy alone or in combination with other treatment. The list includes cases of hysteria, spinal amaurosis, amblyopia, amblyopia exanopsia, blindness or imperfect sight, the result of anæmia or simple atrophy of the disc, atrophy following on typhoid fever and other exhausting diseases, lead poisoning and the abuse of alcohol, tobacco, and some other poisons. The time at my disposal will not, however, permit of further details under this head and I therefore pass on to my next great remedy—mercury in large doses alone or in combination with other drugs. And here I must enter my protest against the very general impression that mercury *per se* (I mean in its non-corrosive forms) is a very dangerous poison; it is nothing of the kind, except in cases of idiosyncrasy, which one hardly ever sees, and in cases of defective elimination, which are rare; it is a comparatively harmless drug. Witness the workmen who were formerly, and I believe still are to some extent, engaged in silvering mirrors, and who were and are perforce more or less under the influence of mercury for years together. These men get high wages and so far as I can learn do not lead very careful lives, yet, although I have seen odd cases of neuritis, slight tremor, and occasional mild salivation among them, I have never been able to make out that they were as seriously affected by their occupation as they would have been if the very general impression as to the evil effects of this drug were correctly founded. I remember when I was a student a female out-patient at one of the London hospitals taking in one dose several ounces of mercurial ointment which had been prescribed in small quantities for external use; she was, of course, profusely salivated but was cured of her disease and seemed no worse afterwards. I believe the Arabian physicians, who were the first to use this remedy, prescribed it (principally in the form of ointment) in enormous doses, and we all know that in the old times a pint or more of saliva was exacted as a daily tribute from the inmates of lock hospitals, even when they were suffering only from non-syphilitic or pseudo-syphilitic affections. If I am told that I err in making these statements or that I have been misinformed, I reply, be it so, it does not affect my argument in the least, for I have put this question to the test myself fully in the persons of numerous patients who have been taking mercury when indicated, under my direction, sometimes for years together. I still see now and then a lady patient from a distance who owes her salvation to mercury which she has been taking in the form of blue pills, sometimes six times daily (with intervals), for many years, and I have numerous patients who have taken it for long periods with no ill-effects whatever. Meanwhile the influence for good of this much-abused remedy, alone or in combination, is simply marvellous; here is a photograph of a young lady, 15 years of age, from a neighbouring town who has been taking mercury in large doses for *four* years; when I first saw her she was quite blind from iritis and diffuse scleroderma, or, in other words, parenchymatous keratitis. No iris or pupil could be seen, in fact, the eyes were simply opaque masses; she had been under treatment by eminent specialists and the case was considered hopeless; nevertheless, she has recovered perfectly, her eyes are as bright as those of anyone, she sees very well indeed to read and at distance, and her health has distinctly improved. Here are other cases that may be taken in proof of my position. The first of these was a peer who had always been short-sighted; he had been attacked long before I saw him with irido-choroiditis, followed by effusion into the vitreous humour, in fact, it was impossible to illuminate the fundus in either eye; he had been treated with mercury in small doses and other alteratives *secundum artem* by the most eminent men of the day and was ultimately declared incurable. "We can do nothing for you, my lord"—a sentence doubly shocking to one who had all else which wealth could bestow. As it was impossible to light up the interior of the eye an accurate diagnosis was out of the question, but I was informed that there was probably detachment of the retina in both eyes. I treated him with galvanism, large doses of mercury, massage, pilocarpine, and derivatives, with the result that within a month he had recovered most excellent sight, as good as he had ever enjoyed in his life—a blessing which he retained in full perfection until the day of his death many years later. I have had three cases almost identical with the one quoted in each of which the patients recovered, and many others differing only in small details; of the former, one was a distinguished journalist, another was a well-known merchant, and the third was an actress. The last-mentioned patient had, in spite of treatment in the metropolis and elsewhere, been blind for two years when I first saw her; in this as in the other cases it was impossible to light up the interior of the eye; nevertheless, under treatment similar to that just recorded the cloud disappeared, and although the nerve proved to be partially atrophied she has recovered sufficiently to be able to resume her former occupation upon the stage.

Mercury may be administered in the form of the blue pill, ointment, vapour and sub-conjunctival injections. For the last purpose I prefer the cyanide, the injection of which may be rendered quite painless by the addition to the solution of a small portion of acoine. It is frequently necessary to combine morphia with the pills, and pilocarpine is an immense help. This last may be given in half-grain doses internally or used as a hypodermic injection in doses of from one-tenth to one-quarter grain; salivation and profuse sudation are caused, and it is necessary to guard the sufferer against cold by raised temperature of the sleeping apartment and plenty of bed-clothes. Another adjunct is elaterine, which causes profuse watery evacuations and is specially useful, in doses of one-fortieth to one-tenth of a grain, when in addition to other troubles there is detachment of the retina.

Let us see now what can be done in the way of derivatives, vascular and nervous, or both, and among these I must give first place to blood-letting. I am afraid you will think me very old-fashioned, but I am certain that we do not bleed enough in the present day. When I was apprentice to a country practitioner in this neighbourhood we used to bleed patients at their own request, and for no particular reason, or because it was the spring or fall or change of life, or something of that kind; and I have now in my possession an old daybook or diary belonging to another practitioner on almost every page of which you may read, "Iter venesectio." A friend of mine formerly practising at Oostock used to bleed himself whenever he felt unwell. Both his arms were scarred with the wounds of repeated venesections. He was over 80 years of age, and when I spoke on the subject, eagerly offered to perform the operation on his own person in my presence. We all know that in olden times the barber's pole betokened a willingness to bleed; indeed, in those days they thought no more of bleeding a customer than they did of shaving, hair-cutting, or selling liquor.

"Roam not from pole to pole,
But linger here,
Where you can be bled
And take your beer."

"Will you lose a little blood this morning, sir?" "No, thanks, I cannot spare the time." Now so violently are things changed that you cannot get bled if you wish to, not even if it would save your life. Some time ago I was taking a drive with a country practitioner and he asked me to see one of his patients with him. The patient in question was a full-blooded farmer about 50 years of age and weighing upwards of 16 stones. He sat bolt upright in a chair, the arms of which he grasped in desperate efforts to breathe. The pulse was laboured and he was as blue as a bilberry. "Bleed him," I whispered to my friend, "for God's sake, if you wish to save his life." He replied, "I have never bled a patient in my life." The farmer died the same night. A former patient of mine, of stout apoplectic build and subject to epistaxis (after a period of immunity from his usual loss), was seized with a violent pain in the head; he felt intuitively that he ought to be bled and called upon and besought three practitioners in succession to open a vein; they all refused and he returned home disconsolate, had a fit the same night, and died partially paralysed not very long afterwards. I hope you will agree with me that this is all wrong; the loss of a little blood, or a lot of blood for that matter, is of no great consequence, and if the patient is likely to be benefited he ought to have the chance of such benefit as blood-letting would afford; moreover, thick, treacly, diseased blood is better let out, and if the patient partakes freely of water it is diluted to his manifest advantage.

I remember a woman afflicted with delusions who murdered her three children and then cut her own throat, the last imperfectly. As the blood flowed her delusions vanished, the cloud lifted, and she at once realised and bitterly repented the awful crime which she had committed. Bleed early; *Obsta principiis* must be your motto, and let the blood flow until the pain, if there is any, has quite gone. When the eye only is affected it is difficult in the present day to persuade patients to submit to venesection, but I have applied 70 leeches to the temple in one case and have taken many ounces of blood with Herteloup's instrument from the same situation with the utmost benefit on several occasions. There are, however, other derivatives which act primarily on the nervous system, and which by diverting the *materies morbi* from the part affected often enable us to deal successfully with disease. These are sinapisms, blisters, setons, issues, ice-bags, hot-water bags, Turkish or lamp baths with hot pediluvia, intestinal derivatives, hot and cold aspersion, and the actual or electric cautery used so as to produce mere stimulation, counter-irritation, or destruction of tissue. Let me illustrate my meaning. When a man suffers from shock such as sometimes occurs on the introduction of the catheter, and this shock is so serious as to be followed by suppression of urine, he will die from uræmia and acute congestion if you cannot divert the attention of the nervous system from the kidneys to the skin. When a woman is seized with a rigor on the introduction of a foreign body into the uterus she will die from inhibition (as has happened in cases of criminal abortion) unless you can speedily distract the attention of the nervous system. When a delicate girl suffers from intense fright she is apt to develop palpitation and protruding eyeballs unless you can speedily distract the attention of the nervous system. See now what happens when the attention of the nervous system *is* distracted. When a man on the sea-shore afflicted with an urgent desire to micturate has stepped apart for that purpose the desire will instantly cease and remain in abeyance for hours if he finds himself surrounded by an advancing tide and his life is in danger; when an asthmatic on horseback is seized with a paroxysm of dyspnœa the attack is instantly arrested if his horse bolts and he finds it is as much as he can do to keep his seat; when a paraplegic afflicted with hysteria is roused by a cry of fire she will recover the use of her limbs and run down stairs, though she may have lain supine and helpless for months or even years. Note, epileptics when on horseback do not have fits; and we all know how the mouth dries up and the back aches on intense emotion; how pain is annulled by religious ecstasy and how the toothache vanishes when we knock at the dentist's door.[1]

Gentlemen, when the beet-root sugar industry in Germany was threatened with extinction through the ravages of a parasite termed the eelworm Professor Kühn saved the situation by planting a decoy vegetable alongside the roots, and we can do precisely the same thing in surgery. If a vital organ is threatened with extinction or serious damage by inflammation we can save it by establishing another inflammation in a less vital organ near at hand; the attention of the nervous system is distracted; nature cannot support the two inflammations—as one waxes the other will wane, as one grows the other will wither; and this is true to a certain extent even of malignant growths. What more simple, then, what more rational, when sight is threatened by an intense or chronic inflammation than to save the eye by establishing an irritation or serous or purulent discharge in the nape, in the temple, the arm, or elsewhere. Let me remind you that Mr. Pott used to cure paraplegia and ataxy by setons, issues, and other counter-irritants placed in the cellular tissue alongside the spine, also that patients suffering from pyæmia were often saved by the formation of artificial abscesses in the cellular tissue of the buttock, spine, or leg. Shakespeare tells us "that one fire burns out another's burning, one pain is lessened by another's anguish," and if one principle in the practice of our profession is more certain than another it is that one pus-forming centre, one inflammatory zone, will dry up another. Nature, I repeat, cannot support the two and the way to kill one is to foster the other; this principle was more frequently acted upon and better understood by our predecessors than it is by ourselves, and I regret to see that some authors and more practitioners scout the idea of counter-irritants and derivatives, and often refuse to employ one of the most useful remedies and one of the most potent means for good that we possess.

I now come to my fourth and last contention, which is simply this, that if you will treat patients on these lines—that is, if you will distract the attention of the nervous system by baths, derivatives, and counter-irritants, cut off the supplies of *materies morbi*, sugar, uric acid, indican, &c., by diet and depletion, stamp out the specific element of the disease, gout, rheumatism, syphilis, or what not, by specific treatment—and then resort to such operative measures as may be indicated in each individual case, such as the formation of an artificial pupil, the removal of inflammatory products, the extraction of the lens itself if necessary, and the cutting out of capsular débris if needful, you will restore sight in many cases where such a result seemed impossible. Here is one. The patient, resident in London, married, and 27 years of age, was seized a decade ago with irido-choroiditis in both eyes. Notwithstanding treatment the attacks recurred again and again, until four years ago the iris in both eyes was bound down and the pupils were blocked with lymph. She was treated by the most eminent ophthalmic surgeons and submitted to four operations, two in each eye, apparently without benefit, and as blindness was complete, the pain very great, and the case presumably hopeless, it was decided to excise the left eye; this operation the patient at the last moment refused and then came to me. When I first saw her inflammation was rampant in both eyes, and I therefore treated her with depletion issues and large doses of mercury—in fact, she was profusely salivated again and again much to her temporary discomfort but with the utmost benefit to her eyes; then, when all inflammatory troubles had ceased, when I had as I believed stamped out the essential element of the disease, I ventured to remove a mass of lymph and degenerate iris from the right eye, only to find, as so often happens in these cases, that the lens was quite opaque. I therefore performed the operation of extraction for cataract *secundum artem* upwards, leaving a clear pupil which I hoped would suffice for vision; but no, it became blocked with lymph and closed almost immediately; so I made another pupil only to be disappointed again by closure, and then a third, which last proved successful, and this lady, who had been blind for four years, has now excellent vision. Here is a letter from her in which she describes how much she enjoyed the sights in the crowd on the recent home-coming of the City Imperial Volunteers.

You will say, What became of the left eye, the one condemned to excision? Well, this eye was subjected to precisely the same series of operations with (incredible as it may seem) exactly the same result, in fact, she recovered excellent sight with it and writes, "I can now see very well with my left eye and my right improves daily."[2]

Here is another case which shows how things "out of hope may be compassed oft by venturing." This patient was in his twentieth year attacked with irido-choroiditis for which he was treated for three years as an out-patient and as an in-patient at one of our largest ophthalmic hospitals. Ultimately the retina became detached in both eyes and then cataract, secondary cataract, formed also in both eyes, so that when I first saw him the pupils were blocked with milk-white masses and he could barely tell night from day. I treated him with galvanism, mercurials, sudation and derivatives, and then, when his improved condition warranted the procedure, extracted the lens in each eye. He has now, as you see, very good-looking eyes and very useful vision, being able to earn his living as a journeyman baker.

Here is another very similar case occurring in a patient who has already been presented to the notice of the members of this society. This patient, who had been treated in an ophthalmic hospital, was sent to me by the late Dr. Metcalf of Lancaster. She was 22 years of age, had been blind for four years, and had during that period consulted several ophthalmic surgeons, with the result that she was declared incurable and was advised to enter an asylum for the blind without delay. "Is it any use going elsewhere for advice?" she asked. "Not a bit; no one can do you any good." When I first saw her both pupils were contracted, adherent to the capsule of the lens, and blocked by dense calcareous masses, while the eyes were so soft that they collapsed under the finger. I treated her with constitutional remedies *secundum artem*, with the continuous galvanic current and subconjunctival injections, and when her improved condition warranted the procedure I extracted the calcareous masses from each eye, with the result that she recovered excellent sight both for reading and distance; in fact, I have letters from her as well written as any I could write myself.

These cases, if neglected, overlooked, or deemed incurable, will often lead to many years of deprivation of sight, or even to life-long blindness, a catastrophe which may be averted by judicious treatment. Here are two or three cases which may be taken as proof of this assertion. The first is that of a lady resident in one of the northern counties who came to Nottingham to consult me in her sixtieth year. She had been blind for upwards of 30 years, during which time she had borne three children, not one of whom she had seen. It appeared that when about 30 years of age this lady, who was in affluent circumstances, was seized with an attack of irido-choroiditis in both eyes, which, although subdued by treatment, left considerable impairment of vision. This attack was followed by others, the sight deteriorated more and more, until at last she could not see to go about. At this time she was taken abroad to consult an eminent specialist and she remained on the continent for some months. Varying treatment was subsequently adopted both at home and abroad until she was brought to me. At that time the pupils were reduced to mere points and were blocked by dense masses of lymph; suffice it to say that I extracted the lens and operated upon her repeatedly until I at last succeeded in making an artificial pupil in the left eye, through which she was enabled to read, write an excellent hand, and walk abroad unassisted.

Here is another case that was brought to me by the Rev. Mr. Lloyd of Draycott, in this neighbourhood. This gentleman had been blind for upwards of 40 years and was habitually led about by an attendant. Both pupils were closed and blocked by dense calcareous masses which I managed to remove, and then by making an artificial pupil succeeded in restoring vision in the right eye. This patient recovered excellent sight, and was enabled to read and write and to go about with great facility. Another gentleman, the son of a Member of Parliament, who had been blind for upwards of 30 years and who had been habitually led about, also recovered under similar operative treatment sufficiently to travel as a "commercial," to see the time by his watch, and to go about unassisted. And I have quite recently (that is, within the last six months) had two similar cases—one recovering by operation excellent sight after a blindness of upwards of 37 years in the right eye, the other being very defective, and another from a similar condition, also by operation, which in one eye had existed upwards of 20 years. I perceive, however, that time will not permit of further details on this occasion and I therefore conclude.

---

[1] Witness King David, the orator's water bottle, the Indian ordeal for theft, the Flagellants, the Crucifixionists, and that extraordinary sect who submit to be buried alive.

[2] Owing to an accidental injury some months later this eye suffered a relapse which necessitated a further operation, with what result I cannot at present say.

Gentlemen, in dealing with disease you must remove the cause, strengthen the vital resistance, and treat symptoms as they arise, taking special care to do no harm. As Aristotle has it, "*Τό δε πρῶτον τό μή βλάπτειν.*" Indeed, no amount of success, however brilliant in certain cases, can compensate for failure and loss of sight in others if such failure and loss of sight is the result of the operator's overweening confidence, neglect of proper precautions, or unnecessary interference. You will note that I do not ask you to forsake the beaten path, to essay an impossible task, or to take a leap in the dark. I merely seek your adoption of plain common-sense principles, which everyone can understand, which have the sanction of experience and which yield important results. It has been well said that "to restore sight to the blind will ever be considered one of the grandest of human achievements." To restore sight to persons hitherto considered incurable is perhaps grander still; but best of all, it seems to me, is to impart the secret to others. It is with that object I am here to-night, that I have ventured to address you, and to place at your disposal arms of precision that will give you the mastery over disease.

ON TWO CASES BEARING UPON THE QUESTION OF THE LIMITATIONS OF ENTERECTOMY.[1]

BY ARTHUR E. BARKER, F.R.C.S. ENG.,
PROFESSOR OF THE PRINCIPLES AND PRACTICE OF SURGERY AT UNIVERSITY COLLEGE, AND SURGEON TO UNIVERSITY COLLEGE HOSPITAL, LONDON.

THE two cases now to be recorded appear to have some value as, when taken with others, assisting us to form conclusions in regard to the limitations of enterectomy which can only be settled by experience. The first bears upon the question whether this delicate and difficult operation, which demands a very full measure of reparative power on the part of the patient, ought to be undertaken at all in the presence of marked glycosuria. This condition is well known to exercise in various ways a most depressing influence upon all the vital processes and might be assumed for that reason (perhaps too readily) absolutely to contra-indicate an operation, such as the removal of part of the bowel and end-to-end anastomosis of the same. The second, in which five and a half feet of small intestine were removed for gangrene in a woman, aged 76 years, raises the question whether advanced age is of itself a barrier to the removal of large tracts of the intestinal canal with end-to-end anastomosis. It also gives some hints as to the extent to which such excision may be carried and the effects on assimilation of removal of large portions of the small bowel. Both cases having been followed by complete recovery we are in a better position now to argue from experience than before. The first case was as follows.

CASE 1.—A woman, aged 58 years, was admitted into University College Hospital on Oct. 3rd, 1900, under the care of Dr. G. V. Poore. She complained at this time of great pain above the umbilicus and obstinate constipation. She was known to suffer from diabetes and later was found to have 6 6 per cent. of sugar in the urine. The pain had begun eight months ago and the patient was obliged to remain in bed from the middle of May to the end of June, 1900. After this she was advised by her medical attendant, Dr. Baldwin, to go to the seaside for three weeks. Here she improved on a diet chiefly of fish. After returning home the pain was very intense, especially after solid food. She was usually sick from half an hour to an hour after food, but had no hæmatemesis except on one occasion three weeks before her admission into the hospital. Three weeks before she could not keep down even soda-water and milk. She had always been constipated and stated that drugs had no effect upon this condition. Three weeks before admission she had "coffee-ground" vomiting. Her aspect was that of a fairly healthy woman, and in spite of having lost 2 st. 6 lb. in weight during the last six months she looked fairly nourished. She had no appetite. The abdomen on inspection looked like that of a healthy woman who had borne many children (10). There was tenderness above and to the left of the umbilicus, and here an oblong tumour could be felt. It lay across the abdomen and was sausage-shaped and moderately firm and moveable; otherwise the abdominal contents showed nothing abnormal. The urine was acid, its specific gravity was 1040, and it contained no albumin, but it gave the reaction of sugar. When Dr. Poore kindly asked me to see the patient with him we agreed to distend the stomach with air and then after evacuating it to inflate the colon. When the stomach was distended the tumour was a little less evident but was otherwise unaltered. On distending the colon, however, the tumour was pushed to the right iliac fossa and reduced in size. From this we argued that it was probably seated in the transverse colon and was associated with more or less intussusception of a ring-like growth of carcinoma into the distal portion of the bowel. The patient being in a fair condition except for the glycosuria it was determined to attempt removal of the growth. The preparation for operation consisted in clearing out the descending and transverse colon by copious enemata, drugs having failed. Codeine phosphate in one grain doses was given three times daily hypodermically for the diabetes, and 10 grains of carbonate of bismuth three times a day as an intestinal antiseptic.

The abdomen was opened on Oct. 25th, 1900, in the middle line by a three-inch incision, branched below to include the navel, which was excised. The mass was found to the right of this opening, and on being lifted out with ease was seen to be an annular mass of carcinoma, producing a very tight stricture of the colon. The bowel above contained hard scybala and was much hypertrophied; below the mass it was empty, dilated, and thin-walled. There did not appear to be any glandular infection; but there were a considerable number of adhesions with portions of the omentum round the growth. The latter was now separated from the omentum after ligature in several pieces. The bowel was then closed by several pairs of Doyen's forceps above and below the growth, and the middle portion of the colon was cut clean out with scissors, which were also employed to cut across the mesocolon about one and a half inches from the portion removed, in the centre of which was the annular cancerous stricture. The portion of colon removed measured, in the contracted condition, four and a half inches, about one inch of this being taken up by the growth. The ends of the divided bowel were now brought together after being cleansed and were sutured end to end in the usual manner with fine silk stitches in two rows, a deep row and a superficial row. Then the gap in the mesocolon was closed by a continuous silk suture. When the clamps were now removed the continuity of the bowel appeared to be satisfactory, and the abdominal wound was united by silk stitches passing through all the structures of the edges and without any drainage.

The patient bore the difficult and prolonged operation particularly well and soon recovered from the anæsthetic. She expressed herself as at last free from the severe pain from which she had suffered for months. The temperature remained below 100° F. for the first nine days, during which she steadily improved. There was no vomiting except a mouthful soon after the operation. Feeding by the rectum was kept up for four days and small quantities of fluid were given by the mouth from the second day onwards. Morphia was given, at first two or three times daily, but on the third day I began to administer codeine phosphate in doses of one grain hypodermically three times daily on account of the sugar in the urine, which was shown on the fourth day to amount to 6 6 per cent. From this day it steadily declined in amount until on the ninth day it was only 2 per cent. It diminished now still more rapidly when the codeine in the same amount was given by the mouth until the thirteenth day, when it disappeared altogether, only to reappear once to the amount of 2 8 per cent. on the seventeenth day, when it was found that the patient had surreptitiously eaten some sugar and also grapes. After this sugar was either totally absent or only found in a mere trace until the end of convalescence. For the first ten days the original gauze dressings were not removed, as the temperature had remained practically normal and the patient's abdomen appeared perfectly quiet except for some flatulence. On the tenth day, when the dressings were taken off for the first time, it was evident that some suppuration had taken place. The stitches were cutting and the edges were somewhat swollen and red; a few bubbles of gas escaped also with the pus from the upper stitch holes. The temperature, however, was only 99° and the local and general condition otherwise was very good. The wound was supported by American rubber plaster. This day an oil enema was given with only a slight result, but much flatus was passed subsequently. The next morning at the dressing it was quite clear that a small amount of fæces was escaping from the upper stitch holes and this increased for a few days and then began to lessen. After the first two stools on the nineteenth day after operation, which were very copious, the discharge of fæces from the fistula became insignificant until on the twenty-seventh day it ceased altogether for a week. On the thirty-second day there was some swelling and redness at the lower end of the wound, and the next day a slough was seen protruding, which on being pulled on was of about the size of the little finger, and was seen clearly to consist of a piece of omentum or mesentery with one or two silk stitches attached. There had been a smaller slough of the same kind extracted some days earlier, but no record was made of it. All this time the patient's condition was excellent. The bowels acted regularly with or without enemata, and abundant liquid and solid food was taken. Two days after the discharge of the slough above mentioned there was a trace of thin fæces on the dressing, but the wound healed rapidly, and was almost definitely closed on the day the patient left hospital, only a tiny point of granulation remaining. This was on Jan. 13th, 1901.

---

[1] A paper read before the Royal Medical and Chirurgical Society on Feb. 26th, 1901.

The portion of colon removed is four and a half inches long, and shows the hypertrophy of the afferent end and the dilatation and thinning of the lower. In the middle lies the ring of carcinoma, which only admitted the passage of the tip of the little finger before it was slit up. Under the microscope the growth was seen to be an ordinary columnar epithelioma.

The chief interest of this case appears to me to centre round the fact that this patient had for years been a diabetic, and at the time of the operation was getting rid of 6·6 per cent. of sugar in her urine, and was growing thinner. Hitherto such a state of things has generally been held to contra-indicate most severe abdominal operations. But surgery has altered much with the introduction of aseptic conditions, and it is possible that we may consequently have to revise our notions still further in regard to the possibilities of repair in diabetic patients, and with them our practice. Such cases as the foregoing help us somewhat in forming conclusions on this point. Personally, I can only remember three cases in which I have been called upon to do abdominal operations on diabetic patients. The first was one of carcinoma of the rectum with complete obstruction, for which colotomy was necessary. Here there was no repair in the wound and the patient died comatose. The next was a radical cure of an umbilical hernia where the sugar was overlooked before operation. Here, as I expected when the sugar was found, the day after the repair was bad and the wound broke down and only very slowly healed, and although the patient appeared well generally throughout I was very anxious until he left the hospital in good health. In the present case I was, to some extent, encouraged by the last as showing that union of the abdominal wall, at all events, could take place in a diabetic. But there are very few cases, so far as I know, in which enterectomies have been done in this condition, and there was little evidence to show how repair of the gut would take place in a diabetic patient. It appeared, however, probable that if other tissues can heal in the presence of sugar in the blood, the peritoneum, if kept clean, could, with its wonderful reparative power, do so too. I confess I expected more or less of a fæcal fistula in this case. This is very common in enterectomies of the large intestine under ordinary conditions and would be more likely where sugar was present. But in spite of this it appeared proper to face the risks of operation in view of the almost complete obstruction and the inevitable death which must soon follow if nothing was done. The slight sloughing of the omentum and mesentery in this case is new to me. I have tied these structures in many operations, but until now have never seen any evidence of necrosis in them. This, I think, can be fairly ascribed to the lowering of their vitality due to the presence of sugar in the blood.

CASE 2.—The second case was that of a feeble old woman, aged 76 years, who was admitted into University College Hospital on Jan. 10th, 1901. She had always enjoyed good health, *but in 1870 had undergone ovariotomy*. She had had no children. For two years she had had a large ventral hernia in the ovariotomy scar. On Jan. 8th and 9th she had not felt well and complained of some pain in the abdomen, but she was not sick. At 10 A.M. on the 10th she was seized with severe pain in the abdomen and vomited the contents of the stomach slightly bile-stained. The hernial tumour was tender and more swollen than usual. There was no more sickness and no motion or flatus was passed. At 11.20 on that day she was seen by Dr. Rainsford Gill, of King Henry's road, who states in a letter that he was called to see her for what appeared to be a fainting attack. She then appeared in but little distress. Two hours later she had vomited and had another attack of faintness. The vomited matter contained masses of undigested bacon. He again saw her in about an hour, and she "then complained *only* of epigastric pain—*none* in the lump, which she mentioned was as usual. I had," wrote Dr. Gill, "my doubts and sent her down to hospital; the doubt only occurring because manipulation seemed to increase the epigastric pain and I thought it must mean involved omentum." The patient's state on admission was described as follows: "Feeble woman, with intermittent pulse of 108; face pinched; tongue moist; condition, but for age, good. There is a lobulated median ventral hernia five inches in diameter, extending from umbilicus to pubes. The front of the sac has the scar of an ovariotomy in it. The tumour is tense, dull, not tender, and shows no impulse on coughing. There is definite fluctuation and thrill across it." (I should like to say here that the success of the operation was entirely due to this prompt action on the part of Dr. Gill. These cases are hopeless after a certain moment of septic absorption has been reached, and this he forestalled.) When I first saw the patient, at 10 P.M., and examined the mass under an anæsthetic, some of the contents of the sac returned easily and at once and the whole pelvis was found to be full of very hard masses, discovered later, on opening the abdomen, to be fibroids of the uterus probably calcified.

I immediately opened the abdomen through the old scar and about a pint of dirty blood-stained fluid with a fishy odour gushed out. A loop of blackened small intestine was now seen of about three feet in length, strangulated through the omentum. The gut had not entirely lost its lustre, but was very foul and was distended tightly with dark blood stained fluid. The peritoneum was not cracked, but hæmorrhages existed beneath it in several places, and a few of the subperitoneal venules were thrombosed. The extremely foul and fishy odour of the gut and fluid around it determined me to remove it, as its recovery seemed hopeless. I therefore cut away five and a half feet of the bowel and anastomosed end to end as rapidly as possible. The time taken for this part of the operation was 44 minutes, the whole operation to the last stitch requiring 63 minutes. During the operation, which was well borne, 12 ounces of normal saline solution were slowly injected subcutaneously. The whole of the lower part of the abdomen was filled with very hard fibroids of the uterus, which reduced the amount of space for working very much. The surgical registrar's report next morning on the portion of gut removed was as follows: "The parts removed were five and a half feet of small intestine. Three inches from the lower end is the seat of the distal constriction. The gut at this point suddenly becomes intensely congested and hæmorrhagic, of a purple-black colour, and its walls are thickened with intense œdema. At the time of operation there was a definite groove at this spot, which has now disappeared after lying in weak spirit for 12 hours. On tracing the gut upwards from this point the first three feet are all intensely congested, thickened, and œdematous, but the changes become less marked above, and the upper two feet, though now only pale and œdematous, were congested at the time of operation. There is no groove or sudden change in the pathological appearances to mark the seat of any constriction of the proximal loop of gut, the congestion and œdema becoming gradually less when followed up the coil. On slitting up the gut the mucous membrane of the lowest three feet has a deep purple-black colour, and the valvulæ conniventes are so swollen, discoloured, and pulpy-looking that it is difficult to say whether any ulceration exists. After lying some days in weak formalin the parts merely congested became paler and revealed three large patches in the last 18 inches of gut, where the mucosa was hæmorrhagic, partly gangrenous, and superficially eroded. Each patch involved the whole circumference for about three inches, and the lowest one, where the changes were most marked, had a definite, abrupt linear lower border marking the seat of the distal constriction. In the next foot of gut above there were two similar but smaller patches of mucous hæmorrhage and erosion, only involving a part of the circumference of the bowel for about one inch by half an inch."

During the night of Jan. 11th the patient had an enema of hot saline solution with half an ounce of brandy, followed in two hours by a nutrient suppository. She also had one ounce of albumin water every two hours. There was only slight sickness once. The temperature this morning was 100°F.; the pulse was 120, intermitting one in eight; and the respirations were 30. There was slight distension, but no pain or tenderness, and the patient passed urine without the catheter. Her colour was good. There was no flatus. The treatment consisted in nutrient suppositories every four hours, with saline injections per rectum every alternate four hours. She also had one ounce of albumin water with one drachm of brandy every two hours by the mouth. She also took 20 grains of carbonate of bismuth and two minims of solution of strychnia. On this day the temperature rose to 101° but soon fell to below 100°. Fearing trouble in the lungs in an old person I ordered that she should at once be put in a sitting position and kept so throughout, except for a few hours when she was to sleep in the horizontal position.

There is little now to record except uninterrupted convalescence. The food was rapidly increased until soon the patient was taking nine ounces of brandy, 24 ounces of albumin water, eight ounces of Benger's food, and, later, eggs, pounded meat, and fish. My chief anxiety was about the bowels. These acted twice on the fourth day, three times on the fifth day, four times on the sixth day, and five times on the seventh day, which led me to fear septic catarrhal enteritis. This is not to be wondered at when we remember the state of the bowel above the constriction. The diarrhœa was checked, however, by a few doses of solution of opium (five minims) and there was no further trouble until the twelfth day, when there was another looseness of the bowels. There was just a trace of bronchitis, but never enough to cause alarm, and it was kept under by rubbing the back, by adopting the sitting position, and by wool-packing. In order the better to combat all lung trouble I thought it well to let the patient sit up in an arm-chair on the sixth day by the fire for some time. This seemed to produce a good effect. The wound was not dressed until the tenth day, when primary union was found. A strip of collodion gauze was put over the wound and the whole abdomen was supported with rubber plaster.

Returning now to the first of these two cases I need hardly remind this society that important papers have been published comparatively recently in its "Transactions" tending to show that under the improved conditions of antiseptic surgery the prospect of operations for diabetic gangrene are now by no means so gloomy as formerly. But it must not be forgotten that only 35 years ago the Surgical Society of Paris debated the question whether any operations at all ought to be performed on diabetic patients and came to the general conclusion that only those conditions which without an operation would inevitably end in death should be dealt with—as, for instance, by tracheotomy or herniotomy; and many present on that occasion still maintained that no operation, even the smallest, should be done in the presence of glycosuria. But though it has been since shown that amputations for diabetic gangrene have been performed with a fair measure of success we have still but little evidence as to how operations upon the intestines are borne in the presence of glycosuria. This case, then, appears to offer some encouragement,

As far as we know from recent investigation the way in which sugar in the blood and tissues operates in producing that lowering of vitality which finds its grosser expression in gangrene of the extremities and its lesser in more limited necrotic changes in the lungs, intestinal and renal epithelium, is somewhat as follows. The derivatives of altered tissue change due to glycosuria, such as acetone, acetic, lactic, β-oxybutyric, and oxalic acids, injure the tissues and make them more vulnerable to infection. They are the source[9] of occasional necroses of internal organs, of premature angiosclerosis, and, in combination with increased destruction of albumin and diminished repair, are the origin of precocious senility. All recent authors have found extensive arterial disease in diabetes. Degenerative neuritis is a secondary result of this defective blood-supply to the nervous system due to angiosclerosis.

There are, then, two forms of extreme lowering of vitality due to glycosuria, often producing necrosis—(1) that due to angiosclerosis and thrombosis, and (2) that due to inflammatory processes started by virulent forms of bacteria in weakened tissues. Further, it has been shown that the amount of sugar which is found in the blood and tissues of diabetic patients corresponds pretty nearly with the amount which is found by bacteriologists to be most favourable to the growth of pathogenic organisms on cultivation media. Dr. F. W. Pavy pointed out long ago that the blood of diabetic patients contains about on an average from 0·6 per cent. to 0·5 per cent. of sugar, and many experimenters have found that this is the best percentage of sugar for agar-agar or bouillon if the organisms are to grow at their very best, while a higher percentage either inhibits their growth or reduces their virulence. It would follow from this that, after all, the chief danger to wounds in diabetes is sepsis, and that with the avoidance of this even delicate reparative processes, such as the soldering up of intestinal wounds, may be hoped for. The other forms of lowered vitality would remain, of course, as well as that due to chloroform narcosis, and have to be faced. But we can avoid violence to the tissues by delicate manipulation, and can now spare them the further devitalising effects of strong chemical germicides.

The only reference to changes in the intestines found in cases of diabetes made by Dr. R. Saundby, in Allbutt's "System of Medicine," is as follows: "These [the intestines] share in the congestion and catarrh which are found in the stomach; hæmorrhages may be present in the duodenum. The large intestine is generally filled with hardened fæces and occasionally shows dysenteric inflammation or desquamation of its epithelial lining." Again, in his "Summary" Dr. Saundby says: "Diabetes is a disease which has so profound an influence upon the general nutrition of the body that it tends to produce structural alterations in the various organs which are for the most part of a secondary and degenerative character."

Out of the many features of interest in Case 2, that of the removal of five and a half feet of small intestine in a feeble old woman, 76 years of age, for gangrene, I will only specially allude here to three. First, that the advanced age appeared to be no barrier to the most perfect repair, for everything apparently healed as it might have done in a patient 50 years younger. Next, that so far we have no evidence that in her case the withdrawal of so large a part of the secreting surface of the small intestine has had any injurious effect upon the system. Digestion seems now very good and the motions appear normal. Finally, this case suggests that in some cases of internal strangulation with damaged, paralysed bowel, distended with intensely septic products, but not actually gangrenous, it might on the whole involve less risk to cut away all the damaged portion with its contents than to return it to the abdomen with or without evacuation after its release from strangulation. How often have we seen the patients in such cases die from intestinal sepsis or peritonitis many days after the release of a constriction and with a healed wound, the bowel being found after death still flaccid and discoloured, though in no way perforated. Some undoubtedly recover, but often after violent enteritis, and some only to fall victims to other forms of obstruction set up by adhesions.

I may add that just before the first of these cases was admitted to the wards I had to resect in another case 37 inches of small intestine which was all matted together and kinked, causing almost fatal obstruction. In this case I had operated on a strangulated femoral hernia four months before. And though the discoloured loop was far short of gangrene and the usual wound healed perfectly by first intention, admitting of the patient leaving hospital on the sixteenth day, two very severe attacks of acute obstruction, each nearly fatal, followed with intervals of about a month.

---

[9] Grossman: Ueber Gangranes bei Diabetes Mellitus, p. 127.

When in October I opened the abdomen to see the cause the knuckle of intestine which had been in [illegible] hernia was found so sharply kinked and held down by matting adhesions that it was a marvel that the patient had so long survived. Fortunately, the removal of three feet one inch of the damaged intestine with end-to-end union was followed by complete relief, but I now think it would have been better to have done it in the first operation.

APPENDIX.

The consideration of the second of the above cases could hardly be regarded as complete without some references to those other extensive resections of the intestine which have been published up to the present.

Taking one metre (39 5 inches) as a minimum limit I have been able, with the help of various publications (see below), to collect 27 successful resections of intestine exclusive of my own. These range themselves as follows: between one and two metres, 20 cases; between two and three metres, five cases; and between three and four metres, two cases. The amount in this list removed actually ranged between 100 centimetres (3 feet 3½ inches) and 330 centimetres, or 10 feet ½ inch. This largest amount was removed from a boy, aged eight years, whose condition a year later showed no evidence that the loss of so much of his small intestine had unfavourably affected his health. Of the others it can only be said that those who had lost under one and a half metres (4 feet 10¾ inches) appeared to suffer nothing permanently from the operation. Of the seven cases, including my own case, in which between one and a half and two metres had been sacrificed, two showed some disturbance of the assimilative process. My own patient, the old woman, aged 76 years (66 inches = 165 centimetres), has had on three occasions slight diarrhœa to the extent of one or two loose stools, but otherwise appears to be in the best of health and to have put on flesh. In the other (Schlatter's), where 192 centimetres, or 6 feet 4 inches, were removed for strangulation in a healthy man, aged 23 years, the patient was soon able to take any kind of food and increased largely in weight while in hospital. A year after he was found to have lost three kilogrammes and to be unable to undergo prolonged physical exertion. In the five cases in which between two and three metres had been removed diarrhœa is noted in three when the diet was not regulated; otherwise the patients were well. In the fourth case a man, aged 22 years, from whom 202 centimetres of small intestine were removed, there is no record of any intestinal fault; the other was quite well until death two and a half years later. In the two cases in which respectively 310 centimetres and 330 centimetres of small intestine were resected the condition of the patients at the end of a year showed no loss of weight, but in the first, a man, aged 60 years, an analysis of the excreta showed that assimilation was not perfect but was made up for by the amount taken. In only two of all these cases was a careful analysis made of the excreta after the operation. In Fantino's case (310 centimetres) assimilation was obviously below normal. This was indicated by the rapid appearance in the stools of aliments which could be recognised; and besides, the bowels acted more frequently than normal. Moreover, a chemical analysis showed that the motions were richer in nitrogen, fats, and water than normal, but in spite of this the weight increased. In Schlatter's case practically the same results were arrived at by an analysis of the excreta.

From all this it would appear that about two metres of small intestine, say six feet, may be removed without any serious damage to the subsequent assimilative powers. But I think no one can study these cases without arriving at the conclusion that in this length we have probably arrived nearly at the limit of safe resection of the small intestine. And I feel glad that I had some recollection of having read some of these conclusions somewhere when I was suddenly called at night to operate on this case. It led me to roughly measure what I was about to excise by passing it a foot at a time through my fingers before fixing on the spots to divide the bowel. I remembered, I believe, Senn's conclusion that not more than one-third of the whole of the small gut should be taken away; and though the upper part of the bowel at the spot selected for division was still œdematous and hæmorrhagic I determined to keep within these bounds. It is true that Senn's conclusions were based upon his experiments upon dogs, which might be misleading. It is also true, as I have since read, that Trzebecki's experiments on dogs led him to believe that one-half of the small intestine might be safely excised in man, and that Monari, after a series of similar experiments, arrived at the result that dogs will bear the loss of seven-eighths of their small intestine, and that probably the human being might be deprived safely of two-thirds. It is also true that a boy eight years old has actually lived and grown strong after forfeiting 10 feet 10 inches of small intestine. But the danger of arguing from experiments on dogs or from one or two cases affecting the human subject is clearly suggested by some of these cases, which appear to come perilously near the justifiable limit. And the great value of accurate clinical records is thereby to my mind abundantly shown where abstruse physiological problems are involved. It seems probable, from experiment and observation, that in younger patients who survive the operation a compensatory hypertrophy may take place in the small bowel left behind, which may make up for the loss. It seems also to be suggested that the resection is better tolerated the lower down the intestinal tract it is done.

CASES OF RESECTION OF BOWEL TO THE EXTENT OF MORE THAN ONE METRE WHICH WERE SUCCESSFUL.

1. Hahn.—Excised 80 centimetres of small gut and 20 centimetres of large gut in a man, aged 38 years. There was no disturbance of assimilation. The cause of trouble was volvulus.

2. Budberg.—Koch excised 110 centimetres for gangrenous inguinal hernia. The patient, a male, aged 38 years, recovered.

3. Budberg.—Koch excised 107 centimetres of colon for volvulus. The patient was a male, aged 42 years.

4. Troje.—Excised 115 centimetres of small intestine for tuberculous strictures. The patient was a female, aged 25 years.

5. Schlange.—Excised 135 centimetres of ileum for gangrene due to strangulation. There was no disturbance of nutrition. The patient was a female, aged 42 years.

6. Kocher.—Excised 160 centimetres of ileum for gangrenous inguinal hernia. The patient was a male, aged 57 years. There was [illegible] al fistula. [illegible] ere was no [illegible]

[illegible] is not given.

12. Schwalbach.—Excised 183 centimetres of ileum for strangulation. The patient was a female, aged (?) years. The ultimate result is not known.

[illegible] etres of ileum and partly of [illegible] 36 years. There was no dis-[illegible]

[illegible] r gangrene due to mesenteric [illegible] ed 25 years, who was in good health two years later.

15. Roux.—Excised 124 centimetres for a lipoma. The patient recovered.

16. Canthorn.—Excised 109 centimetres for sarcoma of mesentery. The patient was aged 49 years. The patient recovered but died four months later from obstruction by Murphy's button.

17. Maston.—Excised 112 centimetres for sarcoma of the mesentery. The patient recovered, but died five months later from perforation due to Murphy's button.

18. Trombetta.—Excised 110 centimetres. The patient was a female, aged 40 years. She recovered.

19. Barker.—Excised 165 centimetres for gangrene due to strangulation through a hole in the mesentery. The patient was a female, aged 76 years. She recovered, though she had slight diarrhœa at first.

20. Schlatter.—Excised 192 centimetres for gangrene due to wound and prolapse. The patient was aged 23 years. During his stay in hospital he ate *anything and increased in weight. A year after he had* gone back in weight three kilogrammes and could not work as hard as before.

CASES OF RESECTION OF BOWEL TO THE EXTENT OF OVER TWO METRES WHICH WERE SUCCESSFUL. (QUOTED IN PAPERS BY SHEPHERD AND BY DREESMANN.)

1. Kœberle.—205 centimetres of small intestine excised for strictures. The patient was a female, aged 22 years There was no disturbance of assimilation.

2. Kocher.—208 centimetres of small intestine excised for a railway injury. There was diarrhœa when the patient was incautious about his diet. The patient was a male, aged (?) years.

3. Dreesmann.—215 centimetres of ileum excised for gangrene The patient was aged 37 years Diarrhœa was easily produced by errors in diet.

4. Shepherd.—234 centimetres of ileum adherent to tumour excised. The patient was aged 28 years. There were frequent loose stools, but the patient gained 40lb. in weight.

[illegible] tumour 237 centimetres of [illegible] years. For two and a half [illegible] took place from recurrence of tumour.

CASES OF RESECTION OF BOWEL OVER THREE METRES WHICH WERE SUCCESSFUL.

1. Fantino.—310 centimetres of ileum excised for gangrene. The

patient was aged 60 years. There was no emaciation at the end of a year.

2. Ruggi.—330 centimetres of small intestine excised for peritonitis. The patient was a boy, aged eight years, who was quite well a year later.

References to the effect of removal of large tracts of the small intestine.—Senn: Experimental Contributions to Intestinal Surgery, 1892. Trzebecki: Langenbeck's Archiv, Band xlviii., p. 54. Monari: Beiträge zur Klinischen Chirurgie, Band xvi., Heft 2. Dreesmann: Berliner Klinische Wochenschrift, 1899, No. 16. Shepherd: Brit. Med. Jour., 1895, p. 956. Kukula: Langenbeck's Archiv, Band lx., Heft 4. Schlatter: THE LANCET, Jan. 27th, 1900, p. 217. Fantino: Centralblatt für Klinische Chirurgie, 1893, p. 614.

Note.—Since this paper was written another case has been published by Dr. Blayney of a patient who was operated upon by Mr. Hayes in the Mater Misericordiæ Hospital, Dublin. Here 8 feet 4½ inches (= 251 centimetres) were resected for injury in a boy, aged 10 years. The patient recovered, but is now troubled by looseness of the bowels and occasional vomiting and is losing flesh.

Harley-street, W.

ON HOUR-GLASS STOMACH,

WITH LIST OF SIX CASES OPERATED UPON BY THE WRITER, AND A TABULATED LIST OF ALL CASES IN WHICH OPERATIONS HAVE BEEN PERFORMED.

By B. G. A. MOYNIHAN, M.S. LOND., F.R.C.S. ENG.,
ASSISTANT SURGEON TO THE LEEDS GENERAL INFIRMARY; CONSULTING SURGEON TO THE SKIPTON AND DISTRICT HOSPITAL, &c.

HOUR-GLASS STOMACH.

BY "hour-glass" stomach is understood that condition of the stomach in which the viscus is divided into two cavities. The cavities are generally of unequal size. The terms "hour-glass contraction of the stomach," "double stomach," "bilocular stomach" have been adopted by various authors. Hour-glass stomach may be described as "congenital" and "acquired." Congenital hour-glass stomach is commonly asserted to be the more frequent variety. Thus Fenwick writes, "In about 45 per cent. of the cases which have been recorded neither ulcer nor scar could be detected in the stomach, while in the great majority of the cases where an ulcer was present it was obviously of more recent formation than the stricture." And again, "That the deformity is a rare result of ulceration is proved by the fact that only one case of the kind is mentioned in the records of the London Hospital for 40 years, whereas several instances of the congenital form of the disease were encountered during the same period of time." Similar statements have been made by Carrington, Roger Williams, Hirsch, and, in fact, every writer who has dealt with the subject.

Now, I have examined carefully many museum specimens, I have operated upon six cases personally, and I have seen others in the practice of my friend Mr. Mayo Robson, and I say deliberately that the evidence of the existence of hour-glass stomach as a congenital deformity is insufficient to be convincing. I do not deny that congenital cases may exist, for, as a fact, they are not improbable when we contemplate the circumstances in congenital stenosis of the pylorus; but I am sceptical that any of the recorded cases of congenital deformity are in reality of such an origin. It is a noteworthy fact that in many of the so-called congenital cases, if not in all, ulceration was present in some part of the stomach. This is true of Carrington's cases, of Hudson's, Saundby's, Williams's, Saake's, and Hirsch's. In Watson's first case it is said that the mucous membrane at the point of constriction and on each side of it "is thrown into abnormally heavy ridges," which implies that a process of narrowing from a larger bulk has here occurred. In certain of the museum specimens labeled "congenital" it is quite clear that no adequate examination of the specimen has ever been made. Indeed, such an examination necessitates a so free handling of the specimen as to spoil it almost entirely for decorative purposes. The simple aspect of a pathological constriction can be most deceptive. Case 5 related below was an exemplary instance of this. The isthmus uniting the cardiac and pyloric cavities was barely the size of one's little finger; it was perfectly soft, smooth, and everywhere supple. There was no trace of any thickening or puckering of the surface. On invaginating a finger into the cavity on each side of the narrowing no orifice could be felt leading from one to the other. To all appearance no pathological process had ever existed there. On slitting the stricture up, as a preliminary to performing gastroplasty, I found the following condition. The passage was equal in diameter to a No. 4 or No. 5 catheter; most of its circumference was natural in appearance, but at the upper and anterior part was a small dead-white area, tough and clearly cicatricial, and from near this there ran, on the pyloric side vertically down to the opposing mucous surface, a column clad completely in mucous membrane and half-an-inch in diameter. I removed this column between two ligatures and it was then found to be built up of dense fibrous tissue. There was, in fact, a "bridle stricture" in the stomach. That it was pathological admits of no question, yet nothing short of a division of the stricture could have revealed its inflammatory origin. I have no doubt that if the whole stomach had been obtained from a post-mortem examination the specimen would have been proclaimed to be an admirable example of congenital hour-glass stomach.

Hochenegg on a similar case performed the operation of gastro-gastrostomy. No careful examination of the narrow stricture was made, but the case is quoted as an example of "congenital" deformity. Such a case is quite inadmissible. Doyen's case, referred to in the list, is christened "congenital." At the point of narrowing there was an ulcer adherent to the anterior abdominal wall. On separating the adhesions a gastric fistula was exposed showing unmistakeably that a localised perforation of the ulcer with anchoring was responsible for the warping of the stomach.

Williams[1] describes 10 cases of "congenital contraction of the stomach." The account of one of the cases is based on the examination of a wax model, of another on the inspection of an "inflated dried" specimen, and a third on the appearance of a "dried stuffed" specimen. It is doubtful whether one of the examples can be accepted as an "hour-glass" stomach. In all the rest pathological conditions, ulceration, puckering, thickening, and adhesion to pancreas were present. It is improbable that any one of the stomachs was the seat of a congenital deformity. The same criticism applies to Carrington's cases and to Maier's. The facts that pathological changes producing marked changes in the contour of the stomach may be inconspicuous, that ulceration in association with "congenital" deformity is frequent, and that in many of the examples no purposeful examination of the specimen has been made, warrant me in saying that congenital hour-glass stomach is certainly rare and not improbably mythical. In 20 examples of this supposed variety collected by Watson the stricture was situate in the middle in seven, at the junction of the upper and middle thirds in three, at the junction of the lower and middle thirds in four, and was not noted in six.

ACQUIRED HOUR-GLASS STOMACH.

Acquired hour-glass stomach may be caused by (1) perigastric adhesions; (2) ulcer with local perforation and anchoring to the anterior abdominal wall; (3) circular ulcer, with subsequent cicatricial contraction and induration; and (4) cancer.

1. *Perigastric adhesions.*—These may be the result of many causes; among them being perforation of a gastric ulcer. The adhesion chiefly concerned in producing the condition may be a thick cord running downwards from the liver and sharply pressing into the anterior wall of the stomach. In one of Mr. Mayo Robson's cases such an adhesion caused the cardiac end of an hour-glass stomach to be itself divided into two, thus forming a "trifid stomach."

2. *Ulcer with local perforation and anchoring of the stomach to the anterior abdominal wall.*—In this form a chronic ulcer of the anterior wall of the stomach makes its way in languid fashion through the coats of the organ. As it nears the serous coat adhesions are formed, binding it to the parietal peritoneum, which solders the base and prevents a general leakage. The stomach being then firmly anchored at this one point a sagging of the cavity on each side, but chiefly in the cardiac side, occurs, and this, with the cicatricial contraction occurring in the ulcer, results in an hour-glass stomach. An excellent example of this is Case 1, referred to below. Similar cases are recorded by Steffan and Finney.

---

[1] Journal of Anatomy and Physiology, 1883.

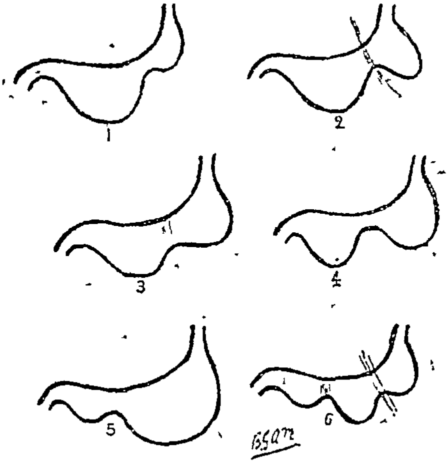
3. *Circular ulcer, with subsequent cicatricial contraction and induration.*—Such an ulcer extends transversely to the long axis of the stomach, and in its contraction while healing must inevitably cause a high degree of narrowing. The simple round ulcer is also fully competent to produce a stricture, though probably not with the same completeness as the former. The conditions found in one at least of my cases, Case 4, suggest very forcibly the likelihood of the ulcer having perforated into the general peritoneal cavity. The scar of the ulcer reached the serous coat, a tough cord-like adhesion sprang from its very middle and extended upward to the liver, while all around were extensive adhesions of varying degrees of toughness. The stricture formed in this manner may be placed at any part of the stomach; it is generally near to the middle, or rather to the pyloric side of the middle. The calibre of the orifice may vary from that of a No. 4 or No. 5 catheter to that sufficient to allow of the passage of three fingers. The greater curvature is generally puckered up towards the lesser, but the reverse is recorded in one case by Schwarz. Perforation of the ulcer at the constriction may occur, as in a case recorded by Siewers.

4. *Cancer.*—Cancer of the stomach is a not infrequent cause of hour-glass stomach. In some of the specimens the cancer has clearly been implanted upon a chronic ulcer—"ulcus carcinomatosum." In others the cancer, originating in a localised area of the stomach and there producing the constriction of the hour-glass, has in its later growth involved the greater part, or even the whole, of the stomach. The stomach then is thickened in all its coats by a diffuse growth and the condition described as "leather bottle" stomach results. This latter state was well seen in Case 6 of my list, in which jejunostomy was the operation of necessity.

SYMPTOMS.

The symptoms of hour-glass stomach are most often those of dilated stomach supervening upon chronic ulcer of the stomach. In most of the cases recorded a diagnosis of "dilated stomach" has been made, and in those dealt with surgically operative interference has been undertaken for the relief of supposed pyloric stenosis. In certain cases, however, the symptoms and signs are clear and pointedly characteristic. In Case 4 and Case 6 of my list a confident diagnosis was made thereon. Two of the most helpful signs were pointed out by Wölfler. They are as follows: 1. A phenomenon observed upon washing out the stomach. The fluid introduced into the stomach seems to disappear altogether "as though it had flowed through a large hole," and is not returned through the tube. In such a circumstance the fluid passes, it is obvious, from the one compartment to the other. 2. It was further noticed that when the stomach was washed out until the lotion returned clear a sudden, unlooked-for gush of foul or even putrid fluid occurred; or, if, after gentle lavage until the stomach seemed clean, an interval of a few minutes was allowed to elapse and the tube again passed, foul or dirty fluid at once returned. This is due, doubtless, to the reflux of the contents of the pyloric cavity through the stricture. Jaworski[2] noticed in one instance that after apparently emptying the stomach by passing the tube a splashing sound could still be obtained by palpation over the gastric area The pyloric cavity, which is not drained by the stomach-tube, causes this suggestion of dilated stomach. The condition has been aptly described as "paradoxical dilatation." Eiselsberg remarked in one of his cases that upon injecting a quantity of fluid into the stomach there were a bulging and distension of the left side of the epigastrium; after a few moments this gradually sank and subsided and simultaneously a swelling of the right side of the epigastrium slowly developed. A sign to which Eiselsberg also called attention in this case was well exhibited in Case 4 in my list On distending the stomach with CO_2 the bubbling and gushing of fluid through a narrow chink could be heard with the stethoscope, an observation that was repeated in Watson Cheyne's case. Case 4 also showed a sign the existence and the value of which I have not seen emphasised before. On examining the abdomen I carefully percussed out the limits of the stomach. After distending with CO_2 the area of tympany, previously marked out upon the lower part and side of the chest wall in front, was more than doubled in size. At the same time a small distended stomach, as it seemed, occupied the epigastrium and a narrowing to its left was clearly seen. Auscultation over this narrowing revealed the sign above mentioned. As the limits of the epigastric swelling were sharply defined and unmistakeable and as there was a doubling of the subcostal tympany, there was clearly a constriction between the two inflated cavities and this constriction must be the isthmus of an hour-glass stomach. Investigation in this manner would have revealed this sign very clearly in Pollard's case and in Childe's case recorded in the list There can be no risk in distending the stomach with CO_2 and therefore this method should be adopted in all doubtful cases. It seems not unlikely that the sign will be most helpful in making an accurate diagnosis. In two cases seen by Schmidt-Monard and Eichhorst a distinct sulcus separating two dilated cavities was seen on inflation with CO_2

The symptoms resulting from a narrowing in the stomach will naturally depend upon the part of the viscus affected. If the contraction be near the pylorus the cardiac pouch will distend to almost any capacity and the clinical picture will be that of dilatation of the stomach. If the stricture be placed but a little way from the cardia the symptoms will suggest œsophageal obstruction. The differential diagnosis can, however, be achieved by noting the distance which the œsophageal bougie passes. In Case 6, seen with Dr. J. Sykes of Cleckheaton, a correct diagnosis was made and a seemingly accurate estimate of the capacity of the cardiac pouch was formed by observing the following symptoms. When the patient took a tablespoonful of milk he retained it; if an ounce or two were drunk at a gulp the greater part was returned. The stomach-tube passed 18 inches without difficulty. On attempting to wash the stomach out one ounce or a little more of fluid passed in, but no more. We administered a seidlitz powder in separate halves. The first half was retained; on administering the second the patient was overwhelmed by a gush of foam which burst from his mouth and nostrils The diagnosis of hour glass stomach, with a smaller cardiac and a larger pyloric segment, was made. At the operation this condition was found; it was the result of malignant disease which had already caused secondary deposits in the parietal peritoneum and ascites.



T [illegible] tion. 4. A narrow channel connects the two pouches. 5. Constriction near the pylorus; simulates pyloric obstruction. 6. Hour-glass stomach; the cardiac complement subdivided by an adhesion, "trifid stomach"

The characteristic signs which may, singly or in association, be present, then, are: (1) disappearance of fluid introduced through the stomach-tube, "as though it had flowed through a hole" (Wölfler); (2) after cleansing of the stomach by lavage a sudden gush of putrid, sour, ill-digested food, &c.

---

[2] Wiener Klinische Wochenschrift, 1893.

PUBLISHED CASES.

No.	Operator and date.	Condition found.	Nature of operation.	Result.	Reference.
1	Bardeleben, 1889.	Hour-glass stomach.	Gastroplasty.	Recovery and relief.	Klemperer, Berliner Klinische Wochenschrift, 1889.
2	Kruckenberg, 1892	Thickened scar on the anterior surface.	Gastroplasty, with excision of ulcer.	Recovery with complete relief.	Münchener Medicinische Wochenschrift, 1893, No. 19 (Schmidt-Monard).
3	Zeller, 1893.	Hour-glass stomach the result of healed ulcer cicatrix.	Resection of cicatrix of healed ulcer.	Death from septic peritonitis result of perforation of another ulcer.	Centralblatt fur Chirurgie, 1894.
4	Doyen, 1893 (This case is called 'congenital')	Constriction at middle of stomach due to ulcer adherent to the anterior abdominal wall. On separating adhesions a gastric fistula was found.	Scraping of ulcer; and inversion; gastroplasty.	Recovery.	Traitement Chirurgical des Affections de l'Estomac, Paris, 1895, p. 308.
5	Wölfler, 1894.	Stomach constricted into two equal portions by scar of ulcer.	Gastro-gastrostomy.	Recovery; at the end of three months quite well and had gained nine kilogrammes in weight.	Beiträge zur Klinischen Chirurgie, 1895, No. 13.
6	Eiselsberg, 1894.	Cicatrix of old ulcer.	Gastro-gastrostomy.	Death; sutures introduced into indurated area had cut through. Septic peritonitis.	Archiv für Klinische Chirurgie, Band l.
7	Watson, 1895	Constriction at junction of middle and lower thirds the result of old ulcer.	Gastro-gastrostomy.	Recovery; complete relief; gained 42 pounds in six months.	Boston Medical and Surgical Journal, 1896.
8	Lauenstein, 1895.	Constriction due to cicatrix from which adhesions ran to liver.	Gastro-gastrostomy.	Recovery; in three months gained 35 pounds.	Münchener Medicinische Wochenschrift, 1896, No. 43.
9	Langenbuch, 1896.	"Hour glass stomach."	Gastroplasty.	Recovery without relief.	Berliner Klinische Wochenschrift, 1896; Thèse de Lyons, 1896.
10	Van Noorden, 1896.	Perforation of the stomach by ulcer.	Establishment of fistula.	Death on fifty-sixth day.	Munchener Medicinische Wochenschrift, 1896.
11	Hofmeister, 1896.	Ulcer and cicatrix.	Excision of ulcers; gastroplasty.	Recovery.	Beiträge zur Klinischen Chirurgie, 1896.
12	Schwarz, 1896	Constriction near middle due to adhesions extending to diaphragm, liver, &c. The lesser curvature was drawn down to greater.	Gastro gastrostomy, gastrolysis at second operation.	Symptoms not improved until after second operation.	Wiener Klinische Wochenschrift, June, 1896.
13	Eiselsberg, 1896.	Large ulcer on greater curvature, near fundus, adhesions to anterior abdominal wall.	Gastroplasty.	Recovery; return of symptoms after nine months.	Archiv fur Klinische Chirurgie, 1899.
14	Jaboulay, 1896.	Constriction very narrow in pyloric third of stomach. Both cavities dilated Cicatrix near lesser curvature; adhesions to the left lobe of the liver.	Gastroplasty.	Recovery; relief of symptoms.	Archives Provinciales de Chirurgie, 1896.
15	Tuffier, 1897.	Hour-glass stomach; both cavities dilated.	Gastro-enterostomy between cardiac pouch and intestine; symptoms not wholly relieved. At a second operation a gastro-enterostomy between pyloric pouch and intestine.	Recovery from both operations; complete relief after the second.	Bulletin et Mémoire de la Société de Chirurgie, 1897.
16	Watson Cheyne, 1897.	Constriction permitting passage of a crow quill only in middle of the stomach. Both parts of the stomach dilated.	Gastroplasty.	Recovery.	THE LANCET, March 19th, 1898, p. 785.
17	Eiselsberg, 1898.	Constriction admitting little finger in pyloric third of organ; adhesions to liver and pancreas; perigastric abscess.	Gastroplasty.	Death in 10 hours.	Archiv für Klinische Chirurgie, Band lix.
18	Eiselsberg, 1898.	Constriction in middle of the stomach; adhesions to posterior abdominal wall and liver and erosion of pancreas by open ulcer.	Gastroplasty; jejunostomy.	Death in 12 hours.	Ditto.
19	Eiselsberg, 1898.	Constriction admitting the little finger in the pyloric third of the stomach.	Gastroplasty; 12 months later gastro enterostomy.	Recovery from both operations. Symptoms recurred nine months after the first operation.	Ditto.
20	Eiselsberg, 1898.	Circular constriction nearer cardia than pylorus.	Three operations: two gastro-plastic, one gastro-gastrostomy; intervals were four, nine, and two months.	Recovery from operations, but recurrence of symptoms after all.	Ditto.
21	Eiselsberg, 1899.	Constriction admitting the passage of one finger due to circular cicatrix and adhesions to liver.	Gastroplasty.	Recovery with entire relief.	Ditto.
22	Eiselsberg, 1899.	Circular constriction nearer cardia than pylorus; dense mass of adhesions from constricted portion of stomach to liver.	Gastro enterostomy.	Recovery and complete relief.	Ditto.
23	Von Unge, 1898.	A circular constriction admitting forefinger eight centimetres from pylorus.	Gastroplasty.	Recovery.	Centralblatt für die Grenzgebiete der Medicin und Chirurgie, May, 1899.
24	Von Unge, 1898.	A circular constriction admitting forefinger 10 centimetres from pylorus; a mass of adhesions.	Gastroplasty.	Recovery.	Ditto.

PUBLISHED CASES (*Continued*).

No.	Operator and date.	Condition found.	Nature of operation.	Result.	Reference.
25	Hastings Gilford, 1898.	Hour-glass stomach; the constriction barely admitted one finger. On the cardiac side of the constriction an ulcer had perforated and formed an adventitious cavity.	Gastroplasty.	Died one month after operation from hæmatemesis. The wound in the stomach was partially unhealed at the point of thickest induration.	Guy's Hospital Reports, Vol. liii., 1898.
26	Courmont, 1898.	Hour-glass stomach.	Gastroplasty.	Recovered.	Hochenegg, Wiener Klinische Wochenschrift, 1898.
27	Cumston, 1898.	Constriction at the junction of the middle and lower thirds; adhesions to surrounding structures.	Gastroplasty.	Recovery, well eight months after.	New York Medical Journal, 1899.
28	Hochenegg, 1893.	Constriction at junction of middle and pyloric thirds; admitting little finger; cardiac portion immensely distended.	Gastro-gastrostomy.	Recovery.	Wiener Klinische Wochenschrift, 1898
29	Watson, 1900.	Perforating ulcer, with perigastric [illegible] finger.	Ulcer inverted and sutured; gastrolysis.	Death on fourth day from general septic peritonitis.	Annals of Surgery, July, 1900.
30	Klein, 1900.	Hour-glass stomach the result of cicatricial contraction following the drinking of corrosive fluid.	Gastro-duodenostomy.	Recovery and entire relief	Wiener Klinische Rundschau.
31	Sidney Martin and Bilton Pollard, 1900.	Hour-glass contraction and stenosis of pylorus. At the first constriction there was a small perigastric abscess. The second compartment was much larger than the first. Pylorus very stenosed and peripyloric abscess found, due to perforating ulcer just beyond pylorus.	Gastro-jejunostomy. The second compartment of the stomach united to the intestine.	Death on fifth day.	Brit. Med. Jour., vol ii, 1900.
32	Childe, 1901.	Hour-glass stomach. The cardiac portion lay under cover of the ribs and was not noticed until the necropsy. The pyloric portion was supposed to be the whole stomach and "was not abnormally large."	Gastro-enterostomy, between pyloric segment and jejunum.	Death on fifth day.	Ditto, 1901.

This list includes all published cases with the exception of Mr. Mayo Robson's, which will be reported shortly.

PERSONAL CASES DEALT WITH BY OPERATION.

No.	Date.	Sex.	Age: years.	Symptoms and description.	Condition found; operation.	Result.	Remarks.
1	August, 1899.	F.	39	Ten years ago the patient had an illness characterised by profound anæmia. Seven months ago there were clear symptoms of ulcer of the stomach, but neither then nor at any time any acute illness suggestive of perforation. Now vomited after all ordinary food, and more often than not even after small quantities of fluid food. Pain after food was exceedingly severe. On examination of abdomen a dilated stomach could be felt At one point, a little to the left of the middle line and slightly below the ensiform cartilage, was an area two inches in diameter which was markedly tender and offered increased resistance on palpation. This area was found at the operation [illegible] last few months.	H[illegible] stomach, the narrow con[illegible] side of this the stomach dilated and seemed to be anchored by the adhesion. On separating the stomach from the abdominal wall an opening into the viscus was exposed and the stomach contents escaped. This opening was enlarged transversely and the wound and fistula were stitched up vertically. An omental graft was brought to cover in the sutured area in order to guard against future anchoring.	Recovery.	For a month after the operation there were pain at times and loss of appetite. Since then she has been free from pain and in excellent health. Appetite and digestion are good. Patient seen with Mr. Bailey, Horsforth.
2	April, 1900.	F	27	There was no history of gastric ulcer. The patient had complained of irregular attacks of pain in the epigastric region for 11 months, always associated with the taking of food, [illegible] splashy; contractions were seen when distended. Medical treatment had proved unavailing.	Hour-glass stomach. The constriction was about four inches from the pylorus; the passage between the two sacs equalled a No. 12 catheter in diameter. There were marked induration and puckering, but no adhesion to the abdominal wall or elsewhere. The strictured neck was divided by an incision about two and a half inches long in the transverse direction and stitched up vertically, the mucous membrane with a continuous cat-gut suture and the serous with a continuous silk suture. Two additional interrupted sutures were applied at each end of the wound.	Recovery.	Vomiting for five days after the operation, blood-stained. Since then perfectly well. Patient seen with Dr. Waugh, Skipton.

PERSONAL CASES DEALT WITH BY OPERATION (*Continued.*)

No.	Date.	Sex.	Age: years.	Symptoms and description.	Condition found; operation.	Result.	Remarks.
3	Jan. 24th, 1901. Hospital, Registered No. 443	M.	45	Ailing for three years. Pain in the epigastrium radiating to the left chest. Was worse after food, coming on "within half an hour" and lasting for from two to four hours unless relieved by vomiting. Frequently vomited about an hour after food; never any blood. Lately the pain had been almost constant, aggravated by food, and eased by vomiting. Had lost 2st. 12lb. Dilated stomach. On distending with CO_2 a notch was noticed at the upper border of the stomach and a tentative diagnosis of hour-glass stomach was made. Free HCl. A trace of lactic acid and a few rod-shaped bacilli.	An hour-glass stomach. The scar of the ulcer was equal in size to a florin, was situated close to the lesser curvature and nearer the cardiac orifice than the pyloric. There were much puckering and induration of the surface. There were no adhesions. The index finger entered but could not pass the stricture. An incision three and a half inches long was made transversely and stitched longitudinally in two layers. A slender adhesion of gall-bladder to the pylorus was divided. (Gastroplasty, gastrolysis)	Recovery. Before leaving hospital the ordinary diet without any discomfort.	Weight before operation, 8st. 6lb. Patient seen with Dr. Trevor Pritchard, Retford.
4	March 6th, 1901. Infirmary, Registered No. 1221.	F.	23	Symptoms of gastric ulcer for more than five years. Was under treatment at beginning of illness at the infirmary. Had been gradually getting worse. Vomited now after every meal; pain and vomiting came on about from half an hour to one hour after food. Vomit was very "sour." On examination, hour glass stomach. On distending with CO_2 the cardiac half increased considerably, forming a very large lymphatic area. The pyloric half distended but little; the division was clearly seen. On auscultation a forcing, gurgling sound was distinctly heard.	Hour-glass stomach. The cardiac side of constriction was much dilated and larger than a normal stomach. Rather beyond the middle of the organ was a constriction that would just admit the forefinger; round constriction were much induration and many adhesions; especially noticeable was one thick cord-like one coming from the liver. This was divided between ligatures. The liver was slightly torn on separating widespread adhesions along the lesser curvature. Below it on each side the stomach sagged and between the cavities an anastomosis was made which readily admitted three fingers. (Gastro-gastrostomy, gastrolysis.)	Recovery.	Patient seen with Dr. Waugh, Skipton.
5	March 9th, 1901. Infirmary, Registered No. 1237.	M.	55	Stomach troubles for 16 years. At first pain after food and occasional vomiting. Five years ago an acute attack of hæmatemesis, melæna, and general swelling of the body, which it was feared might prove fatal (? perforation). No ease in the stomach since then; constant vomiting, pain after every meal, and great wasting. Now looked thin, pinched, and shrivelled. For three weeks had had no food, only sips of water and nutrient enemata. On examination, dilated stomach. Free HCl.	Hour glass stomach At first it was thought to be a dilated stomach; on tracing the stomach towards the pylorus an extremely narrowed isthmus (barely as thick as the little finger) was come to which was supposed to be narrowed pylorus, but on tracing beyond it stomach was still found. On invaginating a finger from each side of constriction no opening could be felt. Many adhesions were separated until all was clear and free. Then incision into the stomach or cardiac side of the isthmus and a probe-director was passed through constriction, which it fitted snugly, the opening being no bigger than a No. 4 or No. 5 catheter Gastroplasty was performed. On the pyloric side of the stricture was a column of mucous membrane forming a bridle stricture. This was ligatured, divided at both ends, and removed.	Recovery.	Patient seen with Dr. Mackay, Knaresborough.
6	March 3rd, 1901.	M	54	Vomiting of fluid if taken in quantities exceeding an ounce (see text).	Hour-glass stomach. Narrowing close to cardia due to malignant disease which had invaded the stomach everywhere. (Jejunostomy.)	Recovery (operation, March 12th).	Patient seen with Dr. Sykes, Cleckheaton. Is not making any material improvement.

(Wolfler); (3) "paradoxical dilatation," succussion splash in pyloric cavity after syphonage of the cardiac loculus (Jaworski); (4) distension of cardiac loculus, its gradual subsidence, and concomitantly the distension of the pyloric loculus (Eiselsberg); (5) during this period a gurgling, forcing sound heard over, or near, the middle of the stomach (Eiselsberg); (6) on distension with CO_2 a large increase even to a doubling in the thoracic area tympanitic on percussion and a slight distension, clearly demarcated, of the pyloric loculus (Moynihan); and (7) rarely a sulcus may be seen on inflating with CO_2 (Schmidt-Monard).

TREATMENT.

The following operations have been practised in cases of hour-glass stomach: (1) gastroplasty, with or without resection of the ulcer; (2) gastro-gastrostomy or gastro-anastomosis; (3) gastro enterostomy; and (4) partial gastrectomy. Frequently, owing to the existence of adhesions, gastrolysis has to be performed in addition to the operations mentioned.

The choice of an operation will be determined by the conditions found at the operation. It is essential that a careful and complete examination of the whole stomach should be made before any procedure is adopted. For in some of the cases related below it will be noticed that the lack of adequate and precise knowledge has led to futile measures and fatal results. If the constriction be near the middle of the stomach, if there be little induration and no active ulceration, and if the pylorus be free, a gastroplasty will prove successful. If the constriction be in any part of the middle third or half of the stomach, if the pouches on each side are "sagging" and free from adhesion, and if the pylorus is free, a gastro-gastrostomy will suffice to effect a cure. If, however, the stomach narrowing be associated with pyloric stenosis, the existence of which must be suspected if the pyloric segment is dilated also, no single operation will suffice. A gastroplasty and a pyloroplasty, or a gastroplasty and a posterior gastro-jejunostomy must both be performed. It is possible that in some cases, such as that of Schwarz, where the lesser curvature is dragged down to the greater, that the incision dividing the constriction in the stomach might be utilised for the purposes of an anterior gastro-jejunostomy. If on separating parietal adhesions a gastric fistula be found as in Doyen's case and in Case 1 of my list, the ulcer may be excised, or its edges may be trimmed, and a gastroplasty may be performed. If the constriction be due to new growth, a partial or complete gastrectomy may be performed. If these prove not feasible, a palliative jejunostomy may be necessary, as in Case 6.

Various operators have expressed individual preference for certain methods Thus Eiselsberg, whose experience has been extensive, prefers gastro enterostomy He has performed 11 operations upon eight patients; three of the patients died as a result of the operation, and of the five survivors one suffered from a recurrence of the symptoms at the end of nine months Eiselsberg objects to gastroplasty, that recurrence of the stenosis is probable The same objection has been brought by Berg and others against pyloroplasty The probability is that while the process of ulceration is still active it is unwise to perform a gastroplasty or a pyloroplasty, but that when the healing is complete, when perigastritis is absent, and the incision through the stricture is of good length, no relapse need be feared It is especially important to observe the condition of the pyloric portion of the stomach If the isthmus be a narrow one the pyloric segment should be small and empty. If the pyloric cavity be dilated, as is expressly noted in Jaboulay's case and in Watson Cheyne s, there is a strong presumption in favour of the existence of a pyloric narrowing If such narrowing be present and a gastroplasty alone be *performed, the operation, though "succes•ful" so far as* recovery is concerned, cannot be expected to relieve the patient of all disabilities, and a second operation may be imperative

1 *Gastroplasty* —This is an adaptation to the body of the stomach of Heineke's operation for pyloric stenosis It was performed by Bardeleben in 1889, by Kruckenberg in 1892, and later by Zeller and Doyen A transverse incision, four inches in length at least, is made, dividing the stricture The incision is then stitched up vertically Two continuous layers of sutures are introduced, one for the mucous membrane only, or all the coats, and the other for the serous and sub serous coats alone

2 *Gastro gastrostomy or gastro anastomosis* —This was first performed by Wölfler in 1894 The incisions made into the dependent *pouches on each side of the constriction* were vertical and seven centimetres in length An adequate anastomosis between the two halves was thus made Sedgwick Watson in 1895 successfully performed gastro anastomosis in a different manner The incision in the two segments of the stomach were transverse The pyloric portion of the viscus was folded over the cardiac, with the constricting isthmus as a hinge, and the two were stitched together with an elliptical line of sutures before being opened The anastomosis was then made by incising the wall of the pyloric compartment which now lay anterior and through the opposite surface, making the anastomosis This method is unnecessarily cumbersome and possesses no potential advantages over Wolfler's method,

3 *Gastro-enterostomy* —If the anastomosis is made between the pyloric cavity and the intestine the operation must obviously be ineffective, as the constriction is not relieved If between the cardiac cavity and the intestine the pyloric loculus will be undrained and a second operation, as in Tuffier s case, may be necessary

4 *Partial gastrectomy* —In cases of cancer always, and in certain cases of simple disease, a partial gastrectomy may be the operation of choice In cancer a wide excision should be made, in simple disease a removal of the constriction will suffice In both an end to-end suture is desirable

Leeds.

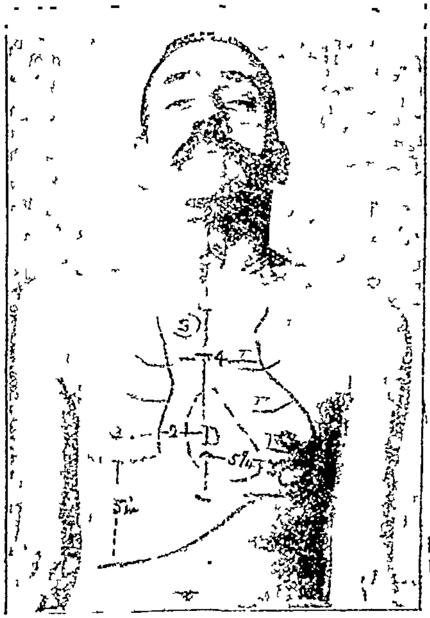
REVERSED PULSUS PARADOXUS DUE TO ANEURYSM OF THE AORTIC ARCH

BY JOHN HAY, M B, CH B VICT, M R C S ENG, L R C P LOND,
MEDICAL REGISTRAR AND TUTOR, LIVERPOOL ROYAL INFIRMARY LATE ASSISTANT MEDICAL OFFICER, MILL-ROAD INFIRMARY LIVERPOOL.

RESPIRATORY variations in the radial pulse due to aneurysm must be of comparative rarity, as I can find no mention of such a condition in the works of Sansom, Gibson, Fagge, Osler, Pepper, and others These authors all describe variations from the normal in the radial pulse as a frequent accompaniment of aneurysm and they emphasise the importance of these variations as aids in the localisation of the aneurysm The variations are (1) complete absence of one radial pulse; (2) inequality of the two radial pulses in volume as felt by the fingers, (3) difference in the character of the sphygmograms; and (4) delay in pulse at one or other wrist They are caused by a number of conditions (1) disease at the mouth of a vessel rising from the arch, (2) deposit of fibrin producing narrowing or occlusion of a vessel, (3) aneurysmal dilatation of a vessel, (4) pressure on a vessel by an aneurysm, or (5) involvement of a vessel on the sac of an aneurysm The case which I am recording, however, presented the interesting feature of a rhythmical variation in the right radial and right carotid pulses coincident with respiration and was due to the innominate artery being compressed between the aneurysm behind and the sternum and costal cartilages in front, the lumen of the artery being almost occluded towards the end of expiration

The patient, a man, died in February, 1900, at the age of 36 years Until the early part of 1897 he had been in good health, but at that time he began to suffer from difficulty in breathing This became worse, and he was admitted as an in patient to the Liverpool Royal Infirmary, and since then, up to the time of his death, he was constantly a patient in one or other of the Liverpool hospitals He had worked as a stoker on board steamers and as is so often the case with that class, he drank large quantities of fluid, *chiefly water, indulging also in beer and stout In 1886* he had a slight attack of rheumatism and in 1889 he contracted syphilis When in India and Brazil he also suffered from malaria Thus we have as etiological factors—syphilis, strain, excess in fluids, malaria, and possibly rheumatism He complained of pain all over the back and chest when he coughed This pain was most severe between the shoulders, especially to the left of the middle line, and tenderness was present over the same area He also suffered from constant headache, and a heavy dizzy feeling He had frequently the sensation of being suffocated, and he could not lie down with comfort but had to be propped up in bed Swallowing anything solid was painful

FIG 1

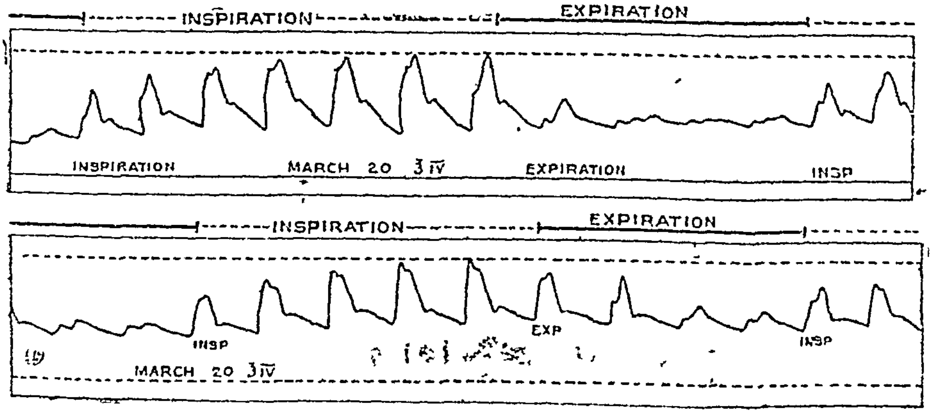


Shows (1) area of heart and aorta as mapped out on chest (2) larynx pushed to the right of the middle line by the aneurysm, and (3) distended veins of the arms S site of maximum intensity of the systolic murmur, situated over the origin of the innominate artery D site of area of the faint diastolic murmur

On examination it was noticed that the trachea and larynx lay more to the right than normal and that with each beat of the heart they made an excursion still further to the right Associated with this condition, and perhaps partly due to it, there was a fulness of the right side of the neck. The veins of the arms were engorged and prominent. The manubrium and inner end of the left clavicle were both observed to move forward with the systole of the heart and on palpating in the suprasternal notch or behind the left clavicle a most distinct expansile pulsation was felt. Tracheal tugging was present. He was much troubled by a cough, bass and deep but wheezy and non-explosive. Examination of the larynx revealed that his left vocal cord was shortened, white, and motionless. The left pupil was smaller than the right. The area of cardiac dulness was much larger than normal. At the level of the second costal cartilage the transverse dulness measured four inches. The illustration shows the limit of cardiac and aortic dulness as mapped out with a pleximeter. The photograph was taken after marking out the area on the chest with Indian ink, so that we have an exact representation of the actual condition (Fig. 1).

Two murmurs were audible. One was a systolic murmur which was loudest over the first right cartilage at the area marked S. It was rough and short and it varied with respiration and was conducted up into the neck, more especially so on the right side. The other, a diastolic murmur, could not be heard over the right second intercostal space, but it commenced at the level of the third costal cartilage, D, and was loudest over the lower end of the sternum. It was conducted towards the axilla and was a faint, blowing murmur not influenced by respiration. On auscultating between the scapulæ a short systolic murmur was audible, conducted almost down to the lumbar vertebræ. No pulse could be felt in the left carotid, axillary, or radial arteries, whilst the pulse in the right radial and carotid arteries varied in the most peculiar manner with respiration. The radial pulse was rather water-hammer in character. Air did not appear to enter the left side of the chest as freely as it did the right, the expansion, breath-sounds, vocal fremitus, and vocal resonance all being less marked over the left than over the right side. The percussion note was not impaired. The patient expectorated a fair amount of mucus which occasionally contained blood. The specific gravity of the urine was 1018 and there was no albumin. Such is briefly the outline of the case and from it was gathered the presence of an aneurysmal dilatation of the arch of the aorta pushing the trachea to the right and slightly diminishing the calibre of the œsophagus. There was also regurgitation through the aortic orifice.

FIG. 2.



Pulse tracing of right radial.

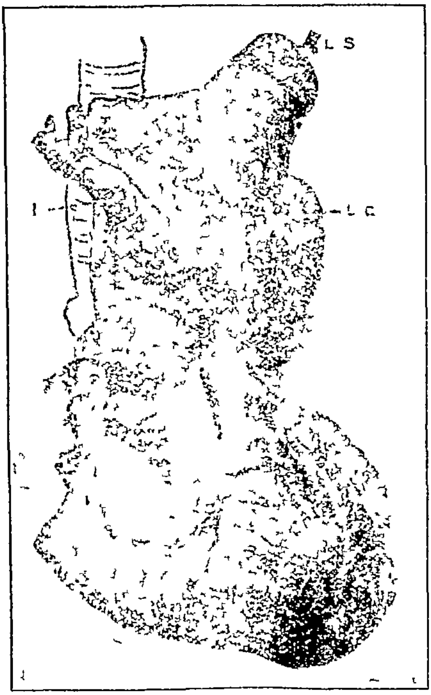
The interesting feature in the case, however, was the effect of respiration on the pulse in the right radial and carotid arteries. The two tracings which are reproduced are from the right radial artery and have the following points of interest: (1) a marked diminution of the volume of the pulse with expiration; and (2) the presence of a definite anacrotic wave the position of which in the upstroke of the tracing varies with the respiratory variation (Fig. 2). It was noticed that during expiration, especially if the act were exaggerated, the radial pulse at the right wrist disappeared. This condition existed also in the right carotid artery, but there was no evidence of respiratory variation in a pulse tracing from the anterior tibial artery. It was also observed that this phenomenon was only present when the patient was in certain positions, it being most marked when he sat up and turned to the left. It was also present when he lay semi-recumbent and leaning to the left. Turning over to the right side, especially when semi-recumbent, did away with the variation and the pulse became regular. Another most interesting fact was noted which considerably assisted in an accurate diagnosis—namely, that the systolic murmur, which, as we have seen, had its area of greatest intensity over the site of the origin of the innominate artery, also varied in intensity with the respiratory movements, becoming much louder and harsher during expiration and diminishing during inspiration. When the right radial pulse was small or almost imperceptible the systolic murmur was loudest and harsh. As the pulse regained its volume and force the murmur lost in audibility and roughness. The diastolic murmur, on the other hand, did not change, but was constant in character and intensity.

One of the most common causes of well-marked anacrotism is aortic stenosis, and it is also recognised that stenosis produced either naturally or artificially in any artery may give rise to an anacrotic pulse beyond the constriction. Here we have an anacrotic wave which varies in position in the up stroke of the tracing, at one time being almost on the base line, while a few beats further it is seen reaching almost to the top limit of the tracing. Note that this variation in the position of the anacrotic wave is regular. On examining a number of tracings the anacrotic wave could be seen ascending higher with each pulsation, reaching its limit and then descending more or less regularly towards the base line.

One of the tracings reproduced shows a variation from a slight anacrotic curve on the base line to a record which gives no anacrotic wave at all. The inference made from this was that in this case the position of the anacrotic wave indicated the extent of the stenosis. With marked obstruction the wave approached the base line and with slight obstruction the summit of the tracing. We had, therefore, three conditions varying with respiration: (1) pulse volume; (2) position of anacrotic wave; and (3) systolic murmur over the origin of the innominate artery. This rhythmical variation in the pulse was therefore considered to be due to "a mechanical cause, probably some kinking of the innominate artery during expiration, as the chest wall descended." The first and second of these conditions suggested the existence of some stenosis which varied with respiration, and the fact that this reversed pulsus paradoxus was present in both the right carotid and the radial arteries together with the third condition pointed to the origin of the innominate artery as the spot where the obstruction to the blood-flow took place.

The post-mortem examination, at which, through the courtesy of Dr. J. Lloyd Roberts, I was present, cleared up the case. It was found that there was considerable dilatation of the whole arch of the aorta, more especially of the transverse portion (Fig 3). The aneurysmal dilatation extended upwards rather irregularly, one rounded projection having crept up and become tightly adherent to the anterior surface of the trachea. In the production of the dilatation it was chiefly the posterior portion of the aorta in the region of the transverse arch which had distended, the result being that the innominate and left carotid arteries, instead of arising from the convexity of the arch, as is usually the case sprang from its anterior surface, and consequently as the sternum and bony thoracic wall descended with expiration these two arteries were caught and compressed between the thoracic wall in front and the aneurysm behind The result of this pressure on the left carotid artery had flattened it down on to the aneurysm and had obliterated its lumen When the patient leaned to the right his heart and aorta would be slightly displaced in that direction and so the innominate artery was freed from compression Thus was caused the increasing and decreasing obstruction in the innominate artery which gave rise to the rhythmical variation in the pulse The aorta was much dilated as far as the lower border of the seventh dorsal vertebra, the bodies of the fifth, sixth, and seventh vertebræ being deeply eroded The œsophagus was compressed by the dilated aorta The valves of the heart were normal with the exception of the aortic cusps which were somewhat fibroid and allowed of free regurgitation The heart itself was considerably hypertrophied and dilated

FIG 3



Photograph of the heart and aneurysm of the aorta, seen from the front. I. Innominate artery rising from the anterior portion of the aneurysm L S., Shrivelled left subclavian artery L C, Shrivelled left carotid which was flattened down and adherent to the front of the aneurysm.

In conclusion, I desire to express my indebtedness to Dr Nathan Raw for permission to publish this case

Liverpool

HEALTH OF BATH – Dr W H Symons, the medical officer of health of Bath reports that 933 deaths were registered in Bath during 1900, which is equal to a crude death rate of 17 72 per 1000 Excluding the deaths of persons who had been brought to Bath for treatment at the public institutions, the corrected death rate corresponded to 15 24 per 1000 compared with 15 83 in 1899 The zymotic death rate was 0 70 per 1000 The number of deaths under one year of age was 121 which is equivalent to an infantile mortality of 126 per 1000 births

---

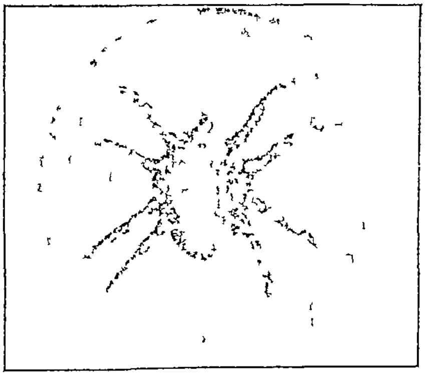
CASE OF A PARASITE—"ARGAS (OR ORNITHODORUS) MÉGNINI" (DUGÈS)—IN EACH EAR

BY J CHRISTIAN SIMPSON, M D EDIN

[WITH A NOTE ON THE ANATOMY OF THE SPECIMEN BY E G WHELER]

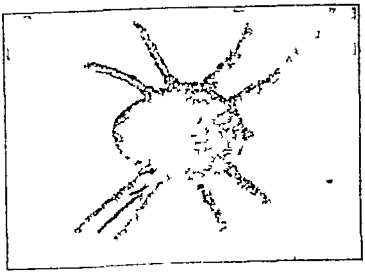
ON August 26th, 1900, Professor —— brought me a living specimen of this tick which he said came from his right ear of its own accord on the previous day On examination of this ear nothing abnormal was detected, and there was only a very small amount of wax The left ear, however, was completely filled with cerumen, and some soda drops were prescribed to soften it before removal Next day a considerable plug of wax and epithelium was syringed out, and on further examination a parasite similar to, but smaller than, the other specimen was plainly visible closely applied to the tympanum On touching it with a probe its four pairs of legs were freely moved, but it would not be coaxed to come out This condition was corroborated by Mr Herbert of Natal, who happened to be with me, and kindly saw my patient at the time Mr Herbert informed me that he had removed a tick from the tympanum of a little girl in Natal where such parasites are pretty common, but he had not seen an instance where each ear contained one

FIG 1



Pupa or Nymph of Argas (or Ornithodorus) Mégnini (Dugès) Ventral aspect. (Undistended specimen) Photograph × 6.

FIG 2



Dorsal aspect Arrow shows situation of stigmatic organ, described by Mr E G Wheler of Alnwick which is seen protruding on the other side Actual size of tick three-sixteenths of an inch long Photograph × 6.

animal. As it is very important not to leave any portion of the suckers or hooks in the tissues, more especially in the drum, I adopted his suggestion of soaking a small pledget of wadding with chloroform and inserting it into the canal for a few seconds the tick was rapidly killed and was easily removed by syringing. On examination it was found to be entire, and no injury was visible to the drum of either ear.

The previous history of the patient was that he had camped out in Arizona in the month of June. He returned to his home in Massachusetts, U.S.A., at the end of that month and then "had some curious sensations in the left ear, a sort of pain above the ear, and a rattling sound in the ear. These feelings decreased and had almost passed away, though the rattling was occasionally heard" up to August 25th when the live parasite came from the right ear, which apparently had not been the subject of any striking abnormal sensations. Cases of living animals in an auditory canal are not very uncommon, but the instance now recorded seems unusual in several respects. There was, in the first place, an absence of general or local ear symptoms sufficiently severe or annoying to necessitate a surgical examination previously to his visit to me. Again, the fact that each ear contained one specimen of the same species of tick is certainly curious, and the possibility of its living there and developing during a period of fully two months without producing more marked disturbance is remarkable. It was fortunate that the occupant of the right ear was free to crawl out and so to attract attention to the other ear, as it was certainly impossible for the parasite in the left ear to escape of its own accord on account of the ceruminous plug completely filling the auditory canal. It might, therefore, at any moment have seriously injured the tympanum if not so opportunely released. The question naturally arises, why the wax should have so rapidly accumulated in the one ear to the extent of occlusion and not in the other, when there was a similar and simultaneous source of local irritation to stimulate its secretion.

Mr. A. E. Shipley (Cambridge University lecturer) kindly forwarded my specimens to Mr. E. G. Wheler of Alnwick, who has been good enough to allow me to append his description of a stigmatic organ not hitherto observed in action. I am also indebted to Mr. Wheler for the photographs of the smaller parasite from which the accompanying illustrations are taken (Figs. 1 and 2). It is about three-sixteenths of an inch in length and the magnification of the photograph is slightly over × 6. The larger living specimen was more than double this size and broad and thick in proportion. In colour and general appearance its body resembled an unroasted coffee-bean. The smaller parasite, however, is best for purposes of identification and has been presented to the British Museum, which had, I understand, no similar specimen.

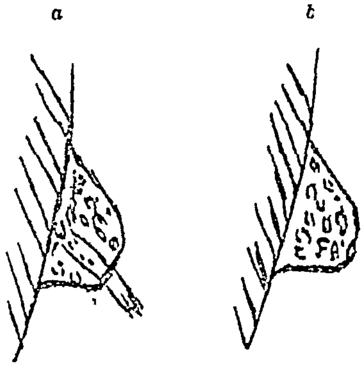
NOTE BY MR. WHELER ON A REMARKABLE STIGMATIC ORGAN IN THE NYMPH OF ORNITHODORUS (OR ARGAS) MÉGNINI (DUGÈS)

On my referring the above specimens to Professor Neumann of Toulouse he at once identified them as ornithodorus mégnini—a genus belonging to the argasidæ—but a careful examination showed a very remarkable difference from other members of that sub family of ixodidæ, such as may make it appear that another of those extraordinary variations of type may have come to light that have already made the study of these parasites unusually interesting.

The feature referred to consists of two protuberances placed in the position of the stigmata, one on each side of the body. They are situated above instead of behind the fourth pair of legs and are therefore visible from the dorsal side of the tick. These are entirely different from the stigmal plates or peritremes usually present and consist of cone-like projections pointing backwards. The top is truncate and perforated with a large hole. Through this in the living specimen was to be seen a pointed organ, projected and withdrawn at will, and with considerable rapidity (Fig. 3) This organ only partially filled up the orifice; it was furnished with three hairs at the end. Its appearance was somewhat similar to the final joint of the palpi. I am unable to satisfy myself as to its probable use. This special characteristic may possibly be deemed sufficient to establish a new genus for this species, in which case the name given by Marx, under the erroneous impression that it was a new species—rhynonoprium spinosum—may be adopted as being more appropriate than the older name given by Dugès.

The species has other peculiarities. It is fully described by Neumann in his "Révision de la Famille des Ixodidæ," and he mentions the unusual fact that the nymph attains dimensions at least as great as the mature female and that it is in this state that it acquires the greater part of the reserves of blood which the latter utilise to form their eggs. He also states that so great a difference exists between the two states as to have caused Marx to believe them to be separate species. Neumann had not, however, noticed the stigmatic organ above mentioned. In general characteristics the species appears to be nearer allied to argas than to ornithodorus, but it seems probable that it should be relegated to a separate genus—a contention that may be strengthened by the fact that the first joints of all the legs are almost totally concealed beneath the cuticle of the body, but not having had an opportunity of examining an adult specimen I should be sorry to express any definite opinion on the subject.

FIG. 3.



a, organ protruded. b, organ retracted.

It is interesting to note that Neumann's specimen came from a horse in Mexico, which strengthens the assumption that the present pair come from Arizona as described by the patient.

Cambridge.

A CASE OF BELLADONNA POISONING; MORPHIA USED AS AN ANTIDOTE.

BY PETER D. STRACHAN, M.A., M.B., CH.B. GLASG.

THE following case is of interest in that it affords an opportunity of estimating the tolerance of a child for belladonna and the efficiency of morphia as an antidote.

At 2 30 on the morning of March 7th, 1901, I was called to attend a boy, aged five years, alleged to have been accidentally poisoned by his mother. The parents' account was as follows. At 9.30 P.M. the mother gave the child a large tablespoonful of what she took to be syrup of senna. She then left home to nurse a sick relative and did not return till shortly before 2.30 A.M. About midnight the father, who slept with the boy, observed him to be breathing rapidly and was particularly alarmed at the loudness of the heart-sounds. He got up and took the boy out of bed and was still more alarmed to find that the child could not stand. Having been thus aroused the child became violently delirious, striking out with his fists, kicking, and biting on the slightest interference with his person. On being put back to bed he could scarcely be kept under the blankets on account of the violence of his movements. The father did his best to keep the boy quiet until the mother's return. When she saw the state of matters her suspicion of poisoning was aroused, and on examining the bottle from which she had given the dose she found it to be labeled "Poison." She therefore immediately sent for medical aid.

When I arrived I found the boy in the state described above. When left alone in bed he came out from under the blankets and wandered on hands and knees aimlessly about the bed, occasionally crying out. The delirium and violent movements were increased when efforts were made to control them. The movements were at no time convulsive. The face was flushed, not cyanosed. The pupils were widely dilated and failed to respond to light. The pulse and respiration were strong and rapid and the heart sounds were very loud. The boy was unable to speak. I found the suspected bottles to contain glycerine of belladonna. I ascertained that the boy had not vomited. As the evidences of belladonna poisoning were undoubted I washed out the stomach with the syphon. A good deal of the water first introduced was vomited over the child's nightshirt, which was of a dark brown colour, so that it was difficult to tell from its appearance whether it contained belladonna extract or not. That which came through the syphon was clear. There was no odour of belladonna from the washings. Considering that five hours had elapsed since the poison was taken I deemed it highly improbable that any of it still remained in the stomach.

After completing the washing of the stomach I gave a hypodermic injection of a quarter grain of morphia sulphate and a tablespoonful of castor-oil by the mouth, which was swallowed. In a short time the boy became quiet and I left the house, having directed the parents to send for me should any further alarming symptoms arise.

I was unable to see the patient again until 11 A.M. Then I ascertained that he had slept well till 10, and on awaking still exhibited symptoms of the same kind, but less aggravated. The delirium was now of a hilarious character, somewhat resembling drunkenness. The child laughed and chatted about his school experiences, games, fights, &c. The bowels had not yet moved. I then gave another hypodermic injection of one quarter grain of morphia sulphate and three grains of calomel by the mouth. The boy did not again sleep till about 11 o'clock. During the whole of that day somebody had to remain constantly at the bedside to keep him in bed. Several times he attempted to bite those trying to control his movements. Although the mouth was very dry and the tongue was constantly rolled about the boy refused food or drink and spat out whatever was introduced into his mouth. At two in the afternoon, the bowels not having yet moved, the mother gave a small soap-and-water enema, after which there were three or four liquid motions. The boy continued in the same mental state till about 11 P.M., when he fell asleep. Shortly after 11 P.M. I visited the patient, and finding him sleeping tranquilly I judged it best to do nothing. He had a good night's rest. The following morning at 10 I found him awake and presenting no abnormal symptoms except dilatation of the pupils which persisted for four days. No rash at any time appeared upon the body and there was no peeling of the skin. After recovery the boy seemed to have no recollection of the incidents which occurred during his illness.

This case may be regarded as illustrating two points, the one necessarily inversely as the other: (1) the tolerance of the child for belladonna; and (2) the efficiency of morphia as an antidote. 1. The dose swallowed was certainly a large one. The chief alkaloid in belladonna is now believed to be hyoscyamine, not atropine. These alkaloids are isomeric and it is considered probable that atropine is a conversion product of hyoscyamine. Extract of belladonna is estimated to contain about 1 per cent. of alkaloid. The glycerine contains 50 per cent. of the extract. In this instance fully half an ounce of the glycerine or two drachms of the extract were taken, representing about one grain of alkaloid. The medicinal dose of both alkaloids is from $\frac{1}{100}$th grain to $\frac{1}{30}$th grain. The fact that the patient remained untreated for five hours without exhibiting the extreme symptoms of poisoning by the drug points to a remarkable tolerance. Taylor quotes as remarkable a case in which a woman recovered after swallowing three drachms of the extract; but although emetics were administered successfully she did not completely recover until five weeks had elapsed. In the case under discussion, when we consider the enormous dose and the great probability that it was all absorbed, it would seem that tolerance alone can hardly explain the speedy recovery. 2. It is here interesting to note that "the Edinburgh committee, presided over by Dr. Hughes Bennett, conclude: (1) that sulphate of atropia is, within a limited range, physiologically antagonistic to meconate of morphia; (2) that meconate of morphia does not act antidotally after a large dose of atropia, and thus, while atropia is an antidote to morphia, morphia is not an antidote to atropia." Physostigmine, in relation to atropine, is considered to have a wider range of antidotal action than morphia. "Although it is experimentally proved that atropine can avert death from physostigmine the question yet remains unsolved whether physostigmine can prevent death from atropine." The above two quotations from Ringer and Sainsbury make it appear that atropine is a good servant, but a bad master.

Those who advocate morphia as an antidote to atropine recommend a quarter of a grain of the former to one-thirtieth of a grain of the latter. It is conceivable that in the child, where there is tolerance of the one and intolerance of the other, the proportion of morphia to atropine ought to be much less. In the light of the more modern view that hyoscyamine is the chief alkaloid in belladonna, these conclusions regarding atropine are irrelevant where belladonna is the poison under consideration, unless we assume that atropine and hyoscyamine have identical physiological action. Such an assumption stands in need of investigation, as indeed does the whole subject, for the opinions to be found in our text-books as to the alkaloids of belladonna and hyoscyamus, their antidotes, and their posology are very conflicting. The fact that in this case such large doses of morphia produced in the child so little of the usual effects of the drug is not so significant as it would at first sight appear, for it merely confirms, what is generally admitted, that belladonna antagonises morphia. The case for the converse proposition must rest entirely upon the non-appearance of the gravest symptoms of belladonna poisoning and the rapid recovery from those symptoms which did appear.

Auchinleck, Ayrshire.

DERMATITIS FROM ARSENIC IN STOCKINGS.

BY F. W. TUNNICLIFFE, M.D., M.R.C.P. LOND.,
PROFESSOR OF MATERIA MEDICA AND PHARMACOLOGY IN KING'S COLLEGE, LONDON;
AND
OTTO ROSENHEIM, PH.D., F.C.S.

THAT dyed materials when brought into contact with the skin may give rise to local irritation, occasionally culminating in actual dermatitis, has long been known to dermatologists. From the many cases available for quotation we need only refer here to those recorded in THE LANCET by Mr. Henry Lee.[1] In the early period of aniline dye manufacture the effect of dyed stockings in this direction was easily traceable to the large percentage of arsenic acid used in the preparation of these dyes (fuchsine red, &c.). That the external application of arsenic is productive of severe and even fatal poisoning is well established, as may be seen upon reference to the text-books of toxicology. These considerations, confirmed by many other observations, resulted in Germany in the passing of a law prohibiting the use of any dye stuff containing arsenic for the purpose of colouring food, wearing apparel, or domestic objects.[2] Since the passing of this law practically all the aniline colours placed on the market have been free from arsenic. A knowledge of these facts rendered the etiology of the following cases which have recently been brought under our notice at first sight somewhat obscure. We were, however, able clearly to trace them to the presence of arsenic in the stockings worn.

Before entering into the subject further, we think it best to give a short description of the cases in question. For the medical notes of the first case we are indebted to Dr. J. Cohn.

CASE 1.—"A boy, nine years old, complained on March 3rd last of pain in the right leg. Examination showed the presence of an inflammatory nodule of about the size of a walnut, situated at the junction of the upper with the middle third of the calf. The nodule was regarded as being probably a commencing furuncle, and sedative lotions and compresses were applied. Upon seeing the patient on the next morning each leg was found to be covered with from 10 to 12 nodules. The nodules were the same as the one observed on the previous day, except somewhat smaller, and were situated between the foot and the knee, stopping abruptly short where the stockings ceased to be in contact with the skin. This directed my attention to the stockings and upon inquiry it was found that the boy had put on a new pair of stockings on the same morning as the first nodule appeared. In the evening of the same day (viz., the second day of the affection) the boy was again seen. He was restless and since the last visit had vomited, without any apparent cause. His condition, however, did not seem serious, the temperature being normal and the pulse only slightly accelerated. There was no diarrhœa. The case caused no further anxiety but necessitated the boy being kept in bed for three days. The nodules gradually faded and on the fifth day the boy went out. On this day he was able to put on his stockings and wore one of his old pairs. On the eighth day, however, he put on the same stockings that seemed to have been the cause of the original irritation. They had been carefully washed in the meantime with soda. On the evening of the same day another crop of nodules appeared which faded in the course of a few days under similar treatment and the entire discarding of the stockings in question."

---

[1] THE LANCET, June 14th 1879, p. 856.

[2] Sell: Arbeiten aus dem Deutschen Kaiserlichen Gesundheitsamt, 1887; Erläuterungen zu dem Gesetzentwurf, &c.

CASE 2.—This case, which was much less severe, may be described as follows. The patient, a female, noticed a marked tenderness of the feet, especially the soles, after wearing for a few hours a pair of new black stockings. Although no gross local inflammation was produced the pain upon pressure was so intense that she could not stand or walk upon her feet. The stockings were discarded and the symptoms disappeared. A few days afterwards the same stockings, which had been washed in the meantime, were again worn with a recurrence of the symptoms, these latter again disappearing upon leaving off the stockings.

The clinical history of these cases suggests strongly the presence of some chemical irritant in the stockings. In Case 1 we were able to obtain for chemical examination (1) a pair of new stockings identical with those the wearing of which was followed by the dermatitis; and (2) the stockings actually worn by the boy after they had been twice washed. In Case 2 we obtained an unworn pair of stockings from the same lot as those which had caused the trouble. The stockings of the patient in Case 1 were long, black, machine-made woollen stockings, weighing 120 grammes; a piece of 100 square centimetres weighed five grammes. The colouring matter proved on examination to be a chrome black. The ash contained chromium and the material gave the reactions of logwood. Probably some other yellow colouring matter (fustic, &c.) was present. On further examination it was found that the stockings contained a considerable quantity of arsenic. Ten grammes treated by Reinsch's method gave a copious sublimate of large white arsenic crystals, and the residual liquid when submitted to Marsh's test gave still a strong black arsenical mirror. A further important result of the qualitative examination was that some of the arsenic was found to be present in a soluble form, since an aqueous extract of the stockings made at the temperature of the water bath, and subsequently subjected to Marsh's test, gave a strong arsenical mirror. In the case of these stockings we estimated the total amount of arsenic and also the amount soluble in water. These estimations were made by distilling with sulphate of iron and ammonia in a hydrochloric acid current,[3] and final weighing as pyro-magnesium-arsenate. It was found that one pair of stockings contained as much as 75 milligrammes, or 1·2 grains, of arsenic (As_4O_6); of this 10·5 milligrammes, or one-sixth of a grain, were soluble in water. A piece having an area of 100 square centimetres contained 3·1 milligrammes of As_4O_6. It was further found that the stockings which had been washed twice still contained some soluble arsenic, the watery extract giving a distinct arsenical mirror. After the stockings had been completely extracted with distilled water they still contained 64 milligrammes of As_4O_6. The stockings of the patient in Case 2 were only examined qualitatively. The mirrors obtained from both the stockings themselves and the aqueous extract of them were approximately of the same intensity as those derived under similar conditions from the new stockings of the patient in Case 1.

From the above results we think that the previously obscure etiology of these two skin affections is cleared up and that we may regard them as being caused by the arsenic contained in the stockings, and probably by the soluble moiety. The ordinary stockings worn by the boy in Case 1 in the time between the two attacks were found to be free from arsenic. It must, of course, be remembered in this connexion that the term "soluble" and "insoluble" with regard to the arsenic content of the stockings is only relative, in that the stockings while being worn would be subjected to the action of an acid secretion—namely, the sweat—by the agency of which some of the insoluble arsenical compounds might be rendered soluble. The fact that the amount of sweat secreted, especially by the feet, is very considerable, is shown by the researches of Cramer,[4] who found that socks in a given time absorbed their own weight of sweat. In this case the conclusion that some arsenic was absorbed through the skin seems justified, in that we must regard the vomiting as produced by the excretion by the stomach of arsenic absorbed by the skin. This same phenomenon has been recorded by other observers.

We have heard incidentally of other cases of dermatitis which, in the light of our present knowledge, we should regard as having a similar etiology to the above. Unfortunately these have not been observed with sufficient exactitude, nor was the material in question available for chemical examination. The indications, however, were sufficient to induce us to examine this matter further, with the view of ascertaining to what extent ordinary dyed goods contained arsenic.

We first examined three samples of black woollen stockings purchased at various prices in different parts of London, all emanating from the same wholesale firm and from the one which supplied the original stockings worn by the patient in Case 1. They all contained arsenic, but apparently in smaller amount than the stockings productive of the dermatitis. We next obtained one sample from each of four other makers, and we found that arsenic was present in each case to a larger or a smaller degree. Three samples of "tan" mixed wool and silk socks were contaminated as well. We examined also a pair of ordinary woollen gloves and found them to be arsenicated. This had especial interest in view of the case quoted by Sell[5] in which a severe dermatitis of the hands was produced by the wearing of a pair of marine blue gloves. A sample of black loose wool was found to be free from arsenic.

Upon inquiring into the source of the arsenic in the goods examined by us we found that arsenic in various forms is used in the process of dyeing In the standard work on dyeing by Knecht and Rawson[6] it is stated that a solution of white arsenic in acetic acid to which some glycerine has been added is used and called "purple fixing colour." The authors also say[7] that "sodium arseniate is extensively used as a fixing agent for mordants. In yarn dyeing it affects the hands of the workmen owing to its poisonous properties. As it is so dangerous ...... its use is objectionable." Another possible source, although more unlikely, would be the use of highly arsenicated sulphuric acid in the preparation of the chromic acid mordant bath.

The use of arsenical mordants has been recognised to some extent by the German law quoted above. Their use is allowed upon two conditions—namely, that no *soluble* compound of arsenic be present in the finished article, and that the total quantity of arsenic be always less than two milligrammes per 100 square centimetres.[8] A similar law exists in Austria. In Sweden the law is much more stringent. The materials used for the manufacture of wearing apparel, &c., must not contain arsenic to such an extent as to allow 100 square centimetres of the finished article to produce when treated according to a certain test an opaque arsenical mirror. The maximum limit, according to this test, corresponds to about 0·07 milligramme per 100 square centimetres.

It will be seen that the stockings which caused the dermatitis in our two cases contained arsenic considerably in excess of the amount allowed by the above-named countries, and although no doubt individuals differ largely *inter se* with regard to their sensitiveness to arsenic it would seem that if arsenical mordants cannot be dispensed with, their use should at least be supervised. The presence of soluble arsenical compounds in those materials which come into intimate contact with the skin can certainly be avoided, and should be prohibited.

---

[3] Compare Classen and Ludwig: Bericht der Deutschen Chemischen Gesellschaft, Band xviii, p 1110.

[4] Quoted from Prausnitz: Grundzuge der Hygiene, München, 1899, p 141.

[5] Loc. cit.

[6] Manual of Dyeing, p 276.

[7] Ibid., p 195

[8] In this connexion it is interesting to know that a pair of black silk socks and a pair of yellow stockings obtained from Germany were found to be free from arsenic

TETANUS PUERPERALIS.

BY KEDARNATH DAS, M.D.,
TEACHER OF MIDWIFERY, CAMPBELL MEDICAL SCHOOL, CALCUTTA.

THE rarity of this terrible and almost fatal complication of the puerperal state warrants publication of the following successful case. Tetanus is known almost from time immemorial, and has been studied by scientific men of all ages; but it is only since the discovery of the specific bacillus by Nicolaier in 1884 that its study has received a scientific foundation. At the present day we must define tetanus as "an acute infectious disease which is invariably and indubitably caused by the entrance into the system of the specific micro-organism—the bacillus tetani of Nicolaier and first cultivated in pure culture by Kitasato in 1891 in anaerobic medium." In the present light of bacteriology and animal experiments there is certainly no place in the description of a given case of tetanus for the diagnosis "idiopathic" or "rheumatic." The only interpretation that can be put is that in these cases the point of infection has not been well searched for or found. The so-called varieties only indicate the seat of infection, the "puerperal" variety thus indicating that a breach in the parturient tract is the point of infection.

A Hindu female, aged 28 years, was delivered of a full-term child on July 20th, 1900. The child had trismus neonatorum on the tenth day and died within 24 hours. The mother had lock-jaw and stiffness of the neck since July 30th. She was admitted into the Campbell Hospital, Calcutta, on August 3rd, 1900, when she had well-marked symptoms of tetanus—opisthotonos, jaw completely locked, spasms very frequent, constipation, pulse 120, small, and compressible, and temperature 100·2° F. She was at once given an intra uterine douche of perchloride of mercury lotion (1 in 2000), an ordinary soap-and-water enema, followed by an enema of 40 grains of chloral hydrate and five grains of calomel on the tongue. She was subsequently kept under the influence of chloral, the drug being given per mouth or rectum. Occasionally she had to be given very large doses of it and during one night she had three enemata of 40 grains each. During the course of the illness she was given apomorphia four or five times hypodermically in addition to chloral per rectum when she could not take medicine by the mouth. I also had recourse to intra-cellular injection of normal saline solution (under the breasts) several times during the course of the illness with a view to help elimination of the toxins The spasms did not completely abate till Sept. 18th—i.e., six weeks after admission. The bowels were kept well open. Plenty of liquid food was given regularly. The total quantity of chloral used was eight ounces, six drachms, and ten grains. She had in addition as much bromide of potassium and a quantity of tincture of Indian hemp.

The prognosis is very grave. The average mortality of tetanus, taking all the so-called varieties together (as given in English text-books), is between 80 and 90 per cent. Garrigues has collected 57 cases of puerperal tetanus and the mortality is put down between 84 and 92 per cent. (*vide American Journal of Obstetrics*, 1882). I have been able to collect 68 cases from literature, a tabulated list of which is given below. In compiling this I have excluded all cases in which there has been any doubt with regard to diagnosis. Of these 68 cases only five patients recovered, giving a mortality of 92 per cent. The cases can be subdivided into three groups. In the first group (i.e., Cases 1 to 43) we have cases collected from English text-books and periodicals. Of the 43 cases three patients recovered, or a mortality of 93 per cent. In the second group (i.e., Cases 44 to 64) we have cases treated with antitoxin given either subcutaneously or by intra-cerebral injection. Of these 21 cases one patient only recovered (treated with intra-cerebral injection + chloral + morphia), or a mortality of 95 per cent. In the third group (i e., Cases 65 to 68) we have Indian cases collected from the *Indian Medical Gazette* of the last 35 years. Only four cases of unmistakeable puerperal tetanus have been found, with one recovery, or a mortality of 75 per cent. It may thus be seen that even with the best modern treatment the mortality of puerperal tetanus is appalling. It must, however be remarked that the Indian cases seem to yield to treatment better than the other cases.

List of Cases Collected from Medical Literature.

No.	Reporter's name.	Abortion; premature labour; or labour at term.	Number of days after which symptoms appeared.	Duration of disease in days.	Result.	Treatment.
1	Dr. Alexander Wood.	Abortion.	6	3	D.	Turpentine, tobacco, Indian hemp, &c.
2	Dr. Malcolm.	"	15	3	D.	—
3	Dr. Hislop	"	6	3	D.	Opiates and croton oil.
4	Dr. Symonds.	"	7	3	D.	—
5	Dr. Velpean.	"	?	?	D.	—
6	Dr. Ritchie.	"	11	6	D.	Laudanum and croton oil.
7	Dr. Adams	"	7	3	D.	—
8	Dr. Lyell.	Labour.	5	5	D.	Opiates; venesection; turpentine.
9	Dr. Lever.	"	3	3	D.	Opiates; venesection, turpentine.
10	Dr. Mackinlay.	"	30	3	D.	Secondary hæmorrhage 24 days after labour.
11	Dr. Storer.	"	6	2	D.	—
12	Dr. Aubinais.	"	3	7	D.	—
13	"	"	4	—	R.	Bled six times; 100 leeches; musk, valerian.
14	"	Premature labour	4	40	R.	—
15	Mr. Colles.	Labour.	16	2	D.	—
16	Dr. Christie.	"	2	—	D.	Hg, opium, warm bath.
17	Mr. Dickinson	"	—	5	D.	Hg, opium, warm bath.
18	—	"	5	1	D.	Cæsarean section.
19	Professor Dubois.	"	13	3	D.	—
20	Professor Lawrie.	Abortion	10	?	D.	$CHCl_3$
21	Dr. Blacksham	"	9	5	D.	—
22	Dr. Philipson	Labour.	9	5	D.	—
23	Dr. Denham.	Abortion.	—	—	D.	—
24	"	"	—	—	D.	—
25	"	"	—	—	D.	—
26	"	Labour.	—	—	D.	—
27	Dr. Keeling.	"	10	8	D.	—
28	Dr. Wiltshire	Abortion.	—	—	D	—
29	"	"	—	—	D	—
30	Dr. Bennington.	Labour.	6	1	D.	—
31	Dr. Dill.	Abortion.	10	72	R.	—
32	Dr. McLaren.	"	10	4	D.	Laudanum blister to spine.
33	Dr. McGregor.	"	7	1	D.	—
34	Dr. Gordon.	"	9	8	D.	Mustard poultices, *opium, and calomel*
35	"	"	4	1	D	Dover's powder, calomel, tobacco.
36	"	"	5	8	D.	Belladonna and lobelia.
37	Dr. Craig.	Labour.	9	2	D	Tincture of Indian hemp.
38	Dr. Arnold.	Abortion.	11	—	D.	—
39	Dr. Werner.	"	—	—	D.	—
40	"	Labour	—	—	D.	—
41	Dr. Viant.	"	5	2	D	$CHCl_3$, Castor oil, and opium
42	Dr. Netzel.	"	7	1	D.	Chloral morphia.
43	Mr. Peacock.	"	7	4	D.	"
44	Dr. Walko.	"	9	—	D.	Antitoxin.
45	Dr McEwan.	Abortion.	7	—	D.	Antitoxin and chloral.
46	Dr. Blumenthal.	Labour	7	—	D	Antitoxin and chloral

With regard to rational treatment of this affection we

List of Cases collected from Medical Literature (continued).

No.	Reporter's name.	Abortion; premature labour; or labour at term.	Number of days after which symptoms appeared.	Duration of disease in days.	Result.	Treatment.
47	Dr. Merkel.	Abortion.	—	—	D.	Antitoxin.
48	,,	,,	—	—	D.	,,
49	Dr. Rubeska.	,,	9	9	B.	,,
50	,,	Labour.	19	—	D.	,,
51	Dr. Pitha.	,,	8	—	D.	Antitoxin, chloral, and anæsthesia.
52	,,	,,	8	—	D.	Antitoxin, chloral, and anæsthesia.
53	,,	,,	8	—	D.	Antitoxin.
54	,,	,,	8	—	D.	,,
55	,,	,,	6	—	D.	,,
56	Dr. Krauz.	,,	7	—	D.	Antitoxin, urethane, and morphine.
57	,,	,,	9	—	D.	Antitoxin.
58	,,	,,	6	—	D.	Antitoxin and urethane.
59	,,	,,	10	—	D.	Antitoxin and urethane.
60	Dr. Leyden.	,,	10	—	R.	Antitoxin (intra-cerebral), chloral, and morphia,
61	Dr. Pitha.	,,	5	—	D.	Antitoxin (intra-cerebral) and morphia.
62	,,	Abortion.	9	—	D.	Antitoxin (intra-cerebral) and morphia.
63	,,	Labour.	9	—	D.	Antitoxin (intra-cerebral) and morphia.
64	,,	,,	5	—	D.	Antitoxin (intra-cerebral), morphia, and chloral.
65	Dr. R. N. Roy.	Abortion.	6	3	D.	—
66	,,	Labour.	4	1	D.	—
67	Dr. Mallik.	,,	15	—	R.	Chloral, 13½ drachms.
68	Dr. Mootoosamy.	,,	5	4	D.	—

References.—1, 2, Edinburgh Monthly Journal, April, 1850. 3, 4, Selected Obstetrical Works, Simpson, 1871, p. 573 5, Essay on Puerperal Convulsion, p. 232. 6, 7, 8, 9, 10, Selected Obstetrical Works, Simpson, 1871, pp 574–578. 11, American Journal of the Medical Sciences, January, 1842. 12, 13, 14, British and Foreign Medical Science 15, Dublin Quarterly Journal, vol. xxx., p 288. 16, Edinburgh Medical and Surgical Journal, vol. viii., p. 415. 17, London Medical Repository, vol. i., p. 192. 18, THE LANCET, vol. i., 1838, p. 388 19, THE LANCET, vol. i., 1840. 20, Selected Obstetrical Works, Simpson, p 590. 21 22, Brit. Med. Jour., 1865 23, 24, 25, 26, Dublin Quarterly, 1865 27, Brit. Med Jour., vol. i., p 113 28, 29, Obstetrical Transactions, vol. xiii. 30, British Gynæcological Journal, vol. i., p. 159 31, Brit. Med. Jour., Oct. 7th, 1883 32, Edinburgh Medical Journal, August, 1862. 33, Ibid, July, 1864. 34, 35, 36, American Journal of the Medical Sciences, January, 1866. 37, Ranking's Abstracts, vol. i. (1873). 38, 39, 40, London Medical Record, April, 1885 41, 42 THE LANCET, July 31st, 1886, p. 218. 43, THE LANCET, August 17th, 1889, p 313 44, Annals of Surgery, August, 1900 45, THE LANCET, August 8th, 1896, p. 381. 46–59, Annals of Surgery, September, 1900. 60–64, Ibid, October, 1900. 65, 66, Indian Medical Gazette, 1874, p 182. 67, Ibid., 1877, p. 70. 68, Ibid., 1877, p. 290.

must look to the following points: (1) to destroy the bacteria at the seat of infection by thoroughly anti-septicising the parturient canal and by subsequently keeping it aseptic; (2) to eliminate the toxins already absorbed by brisk purgation and intra-cellular injection (under the breasts) of normal saline solution; (3) to overcome the symptoms induced by the action of toxins—viz., the increased reflex irritability of the higher nerve centres—and this is best accomplished by keeping the patient absolutely quiet in an isolated place and by chloral in very big doses, given either per os if possible, per anum, or hypodermic injection of apomorphia, hyoscine hydrobromate, or morphia; and (4) to neutralise the poison already absorbed and to immunise the body after local infection has taken place. Both of these indications ought theoretically to be met by the injection of the serum of immunised animals. But the mode of action of the antitoxin has not yet been acceptably explained. Moschcowitz, in his masterly contribution on the antitoxin treatment of tetanus, published in the Annals of Surgery of August, September, and October, 1900, gives no very decided opinion with regard to the neutralising effect of antitoxin, after a careful analysis of 358 cases. Antitoxin treatment, he says, appears to have a distinctly beneficial influence on the course of tetanus and the statistics he has collected show that with this treatment the general mortality of tetanus has been reduced from 90 to 40 per cent. But the puerperal cases, taken separately, show no improvement in the percentage of recoveries With regard to the question of immunising the body after local infection has taken place, this would involve the injection of antitoxin as a prophylactic measure in all wounds when there is reason to suspect the possibility of the subsequent development of tetanus. By such treatment it is asserted that an extensive epidemic of puerperal tetanus in a lying-in hospital at Prague was cut short and numerous instances of good results from a similar course have been recorded in veterinary practice.

Calcutta.

MERCURY AND IODIDE OF POTASSIUM INTERNALLY GIVEN WITH PILOCARPINE HYPODERMICALLY IN DISEASE OF THE EYES.[1]

BY G. HERBERT BURNHAM, M.D. TOR., F.R.C.S. EDIN.,
ASSOCIATE PROFESSOR OF OPHTHALMOLOGY AND OTOLOGY AT THE UNIVERSITY OF TORONTO, TORONTO, CANADA.

CASE 1.—In August, 1899, a patient consulted me regarding an inflamed condition of the right eye. I found at the upper and inner part of the eyeball in the ciliary region very severe scleritis, limited, and the patch of exudation large, swollen, and deeply congested. The adjacent cornea was infiltrated with a cloudy opacity up to, and slightly beyond, the pupillary margin, and there were much pain, photophobia, &c. I gave for ten days mercury and iodide of potassium and used atropine locally. The severity of the symptoms was relieved, but the progress of the sclero-keratitis was not stayed.

Early in September, 1899, I began treatment. The scleritis was now more extensive and the cornea was infiltrated almost throughout its whole extent. I gave pilocarpine daily in doses of one-sixth of a grain for two weeks, and then at intervals of from four to six weeks for seven injections, one each day, and have so continued up to the time of writing. The iodide of potassium and mercury have also been continuously used. The scleritis has traversed the whole ciliary zone up to the point of beginning, but under most favourable conditions—that is, the part first affected has been the most severely attacked and every adjoining part taken in was less severe, till finally, when the disease came again to the inner canthus, it was merely a blush. Moreover, the previously affected parts have kept improving and have never relapsed. In January, 1900, the sclero-keratitis was cured, but there was left a decided corneal haze, interfering very much with vision so that nothing could be read at 20 feet. The treatment was no longer necessary in regard to the scleritis, but it had to be kept up so as to clear up the cornea and thus to restore normal vision. This is being done, and now the vision is $\frac{20}{60}$. The cornea is still clearing up and I fully expect almost or quite normal vision again. There has never been any sign of a return of the disease, and the appearance of the formerly severely inflamed sclera is now normal.

The prognosis regarding this form of sclero-keratitis is gloomy. It is stated in our best text-books that the treatment is at best but palliative; the disease is certain to relapse and continues in this way for years till finally vision is not only impaired or practically lost, but ciliary bulging takes place, leading to marked staphylomatous changes. Under the combined treatment of mercury and iodide of potassium internally and pilocarpine hypodermically there need be, I think, no such result, but a permanent curative effect may be secured. The patient's history is tuberculous.

---

[1] A paper read at the thirty-third annual meeting of the Canadian Medical Association held at Ottawa on Sept. 12th, 13th, and 14th, 1900.

CASE 2.—The other case is that of a boy, aged 12 years, suffering from acute sympathetic ophthalmia—that is, a very severe cyclo-irido-keratitis. When the sympathetic trouble, which showed itself rapidly, was first noticed, the other eye, which had been injured by a penetrating wound, extending well up into the cornea from just at the ciliary region, was excised, the date being Jan. 25th, 1900. Under atropine the pupil at once became fully dilated. Mercury and iodide of potassium were given and the eye at first improved. On Feb. 2nd, eight days after the excision, the sympathetic inflammation again plainly showed itself. I now began combined treatment. For the first 12 injections of pilocarpine, that is the first two weeks, the effect was not full, though I gave as much as one sixth of a grain. I felt that there was some reason for this, for one sixth of a grain is a very large dose for a boy 12 years old. The throat was very slightly affected by the atropine and apparently there was no noticeable constitutional effect. However, I stopped, by more careful pressure upon the canaliculi, all passage of it into the throat when one tenth of a grain gave a full effect. The pupil was now, at the end of three weeks only, dilated one third, the exudation into the ciliary region and iris tissue causing the narrowing to take place. The pupillary margin was very firmly bound down and the capsule of the lens in the pupillary area was covered with a semi-translucent coating of lymph. On the 24th, four weeks since the excision and about three weeks since the beginning of the combined treatment, another acute attack came on and the condition was as follows. There was much general infection, the tension was +1, there was severe pain, and keratitis punctata was present throughout the whole cornea—in fact, a well-developed case of sympathetic cyclo-irido keratitis; there was perception of light only. Under the usual prognosis with respect to similar cases there was a very hopeless outlook. On the 27th the eye was quieter; the tension was +. On March 20th the eye was still improving and vision was better. The combined treatment was still kept up and the eye kept doing well till the 23rd when there occurred a very acute exacerbation with severe pain; the tension was + 1 and there was perception of light only. On the 31st the eye was better. Between this date and the beginning of September the combined treatment was kept up. An improvement which was most uniform, thorough, and unbroken by any symptoms of relapse resulted. The sight also gradually improved till now (Sept. 6th, 1900) the vision is $\frac{16}{16}$ less two letters. The absorption has continued very satisfactorily so that the pupillary margin has given way throughout almost its whole extent. The pupil, however, is dilating very slowly, due to the exudation into the iris tissue. This absorptive process I confidently believe will continue till finally the whole of the affected region will again be restored to a healthy condition. The tension is now normal. This is the first case of acute sympathetic ophthalmia which I have had the opportunity of treating in this way, and the results at the end of about eight months fully convince me that the result will be for all practical ends an eye normal as regards vision and its general condition. This boy has taken internally ever since Feb. 2nd, 1900, five grains of iodide of potassium thrice daily after eating and the twenty-fourth of a grain of bichloride of mercury before eating. One-tenth of a grain of pilocarpine was given hypodermically every second day after the first two weeks for five months continuously. During the remainder of the eight months at the end of every two weeks I have given an injection every second day for six injections and am still going on with them. His general health is good.

Other cases previously published by me,[2] added to those now given and also many minor ones not reported, have given results better than those obtained by other treatment so that I feel justified in advocating the superiority of the combined form of treatment. During four years as resident house surgeon at Moorfields Eye Hospital I saw a good many cases of sympathetic ophthalmia, and I am persuaded that under any other treatment the result in Case 2 would have been that, under the best of circumstances, the eye would have been greatly impaired. The treatment may be said to owe its efficacy to its power of arousing to excessive activity, in a vigorous and sustained manner, the normal physiological processes in diseased tissues, and thus acting so in accord with the efforts of nature as to bring about a restoration to a normal condition. I am now using this treatment, in this belief, in a case of double conical cornea with so far very encouraging progress.

Toronto.

A Mirror

OF

HOSPITAL PRACTICE,

BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Prœmium.

ST. THOMAS'S HOSPITAL

A CASE OF INFLAMED CYSTIC OVARY WITH PELVIC CELLULITIS AND PERITONITIS WITH DEVELOPMENT OF SEPTICÆMIA SUCCESSFULLY TREATED WITH ANTI-STREPTOCOCCIC SERUM.

(Under the care of Dr. W. W. H. TATE.)

IN the following case the evidence of the value of anti-streptococcic serum is very strong, in spite of the fact that the patient refused to allow the blood to be examined bacteriologically. Even, however, if the patient will not permit an examination of the blood, much information may be obtained from a bacteriological examination of the uterine cavity. W. Williams[1] examined 44 cases of puerperal fever and streptococci were found in only eight of these. Most observers are agreed that the evidence is against anti streptococcic serum being of much value except in isolated cases, yet as the injection very rarely appears to be in any way harmful it would be well to give the serum an extensive trial, a bacteriological examination of the blood being made whenever possible. For the notes of the case we are indebted to Mr. Hanway R. Beale, senior obstetric house physician.

A married woman, aged 37 years, was admitted into St. Thomas's Hospital on Oct. 13th, 1900, under the care of Dr. Tate. The patient had had 10 children and no definite miscarriages; her last child was born three years ago; the confinements had been normal. The present illness began in July, 1899, three weeks after a menstrual period, when the patient had a sudden flooding after lifting a tub; she supposed that she lost three pints of blood. The vagina was plugged, but the hæmorrhage persisted for three weeks, when some operation was performed at a cottage hospital where she stayed one month. The patient thought that she was pregnant at the time. On Oct. 4th there occurred a discharge of blood and yellow matter of offensive odour, and in November a second operation was performed similar to the previous one. At this time there was also frequent and painful micturition. The operation was followed by a high temperature and severe abdominal pain lasting six weeks; in December the uterus was curetted, and two weeks later a perineal abscess was opened. After this she was well until June, but she did not menstruate during this period. Menstruation commenced after one week's severe abdominal pain. In July a lump was noticed in her right side but operation was not deemed necessary. In September frequency and pain on micturition became continuous and pain in the lower part of the abdomen was worse. She was seen by Dr. B. H. Kingsford of Woking, who diagnosed pelvic cellulitis and sent her to St. Thomas's Hospital.

On admission into St. Thomas's Hospital she was found to be of cachectic appearance and complained of great pain in the lower part of the abdomen and pain and frequency of micturition. There were great tenderness just above the symphysis pubis and a sense of fulness and great tenderness about the right flank, and there was a resistant tender tumour of about the size of a tennis-ball in the hypogastrium just to the right of the mid-line. Owing to the tenderness she was examined under an anæsthetic by Dr. Tate and the condition found per vaginam was as follows. The cervix uteri was directed backwards. The external os was patulous and the lips were rather œdematous. The body of the uterus was fixed and appeared to be in the middle line. On the right side of the uterus there was a hard cartilaginous mass extending outwards to the pelvic walls and reaching just above the brim of the pelvis, evidently the result of cellulitis. The mass extended forwards into the anterior quarter of the pelvis and apparently into the cellular tissue between the cervix and bladder. On the left side there was a smaller swelling extending backwards from the side of the uterus to the lateral pelvic wall and quite fixed. The anterior vaginal roof was found to be slightly depressed and to have a boggy feeling. Nothing abnormal was found in the heart and lungs. The urine was alkaline and contained pus and traces of albumin. There was no sugar. The specific gravity was 1024 (catheter specimen). The tongue was slightly furred.

---

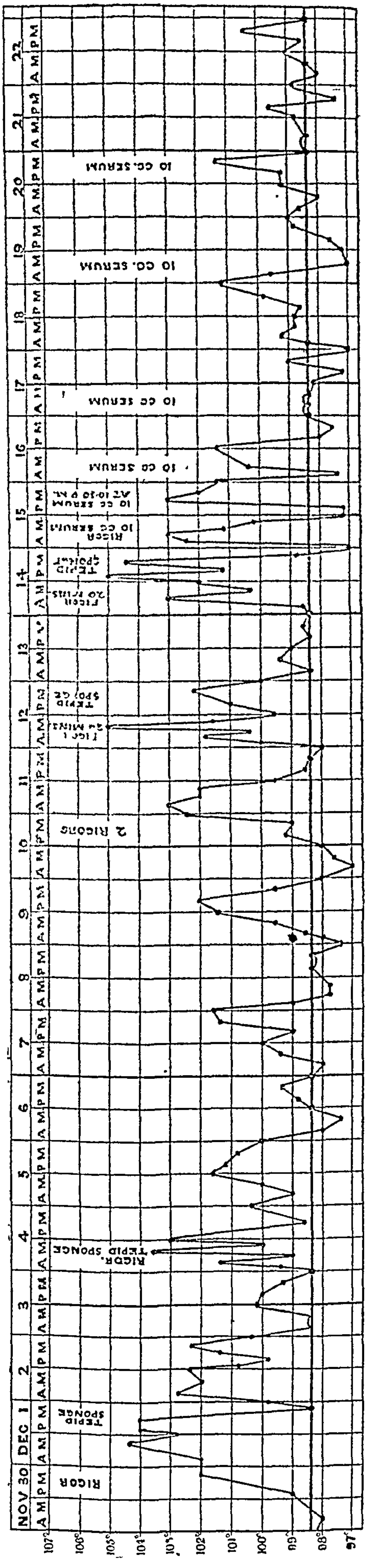
[2] Archives of Ophthalmology and Ophthalmic Review.

[1] American Journal of Obstetrics, September, 1900.

From Oct. 13th to Nov. 6th the patient was kept quiet in bed, during which time she suffered a good deal from pain in the lower part of the abdomen, this at times being very severe. Micturition was frequent and painful. The temperature during this period varied from 98·8° to 100·6° F., once reaching 102°. As it was thought possible that there was a collection of pus in the cellular tissue between the cervix and the bladder ether was administered and a further examination was made, when it was found that the mass previously felt on the right side of the uterus had diminished in size slightly but was still of a cartilaginous consistence and was immoveable. On the left side there was now only a slight thickening in the situation of the broad ligament which was slightly moveable up and down. Anteriorly a swelling could be felt in the situation of the bladder causing some bulging of the anterior vaginal wall and probably the result of cellulitic thickening about the wall of the bladder.

By the introduction of a sound the uterus was shown to be slightly retroverted. Adherent to, and above the level of, the fundus there was a rounded swelling of about the size of a cricket-ball and having the consistency of a sub-involuted uterus but apparently moveable to a slight extent on the anterior surface of the uterus. The sound did not appear to enter this mass. The cervix uteri having been drawn down by means of a volsellum, an incision was made with scissors through the mucous membrane of the vaginal fornix just above the cervix. The finger was then inserted through the incision into the cellular tissue between the uterus and the bladder in order to give an easy exit to any pus which might be present. None was evacuated and the opening made was plugged with iodoform gauze. The temperature fell after this but rose again next day and continued to vary from 99° to 101° and 100·6°. A rigor occurred on Nov. 9th, and the patient had a good deal of pain in the lower part of the abdomen. As she had not improved with rest and it was considered that the inflammatory mischief justified interference it was decided to make an exploratory laparotomy.

The operation was performed on Nov. 15th. On opening the abdomen evidence was found of considerable pelvic cellulitis and peritonitis. The uterus had been drawn down to the left side and fixed. The left ovary and tube were healthy; the right tube, although thickened and the fimbriæ œdematous, was also healthy. In the situation of the right ovary there was a spherical tumour of the size of a tennis ball and entirely covered by peritoneum except at its attachment to the broad ligament which was continued for a considerable distance down the pelvis and was flattened from side to side. As there did not seem to be sufficient disease in the abdomen to account for the patient's condition a further examination was made of the parts in front of the uterus by the combined abdominal and vaginal method and with the assistance of the bladder sound a swelling was now localised between the cervix and the bladder evidently containing pus. The abdominal opening was now temporarily closed with sterilised gauze and a bistoury was introduced through the old scar in the vagina and a deep incision was made through its anterior wall just below the fornix, giving exit to about two ounces of creamy, non-offensive pus. The abscess cavity and the vagina were irrigated with sterilised water and were plugged with iodoform gauze. The operators having been re-sterilised and the instruments changed the abdominal operation was



resumed and the ovarian tumour was removed. As there was persistent slight hæmorrhage from the œdematous tissues a thin gauze plug was inserted and the wound was closed. Examination of the parts removed showed that the tumour consisted of an outer soft œdematous ovary containing numerous Graafian follicles and an internal cyst which was easily enucleated and on incision was found to contain sanious fluid in which floated masses of pale translucent lymph; its walls were a quarter of an inch thick and were coated with inflammatory lymph

From Nov. 16th to the 22nd good progress was made; the stitches were removed on the 22nd, the wound looking clean and there being apparently good union. On the 24th there was much abdominal pain and an area of dulness was found over a slight swelling in the lower part of the abdomen behind the wound. Fluctuation and great tenderness were found over it. On the 26th these had increased and the temperature had risen to 100 4° every day since the 23rd. Accordingly an incision was made in the swelling under nitrous oxide gas and 14 ounces of creamy inodorous pus were evacuated, and a drainage tube having been inserted the wound was dressed with hot boric acid lint. This was followed by a fall in the temperature and by general improvement until the 30th, when the tube was discarded, there being very little discharge In the evening of this day there was a rigor and the temperature rose to 102° and continued to be remittent, as can be seen from the chart. Tepid sponging was ordered whenever the temperature arose above 103 4°. A second rigor occurred at 5 A.M on Dec. 4th, on which date the abdomen was quite flaccid and there was no indication of pus anywhere The urine was neutral, of specific gravity 1012, and contained no albumin, pus, or sugar. Further rigors occurred on the night of the 10th and on the 11th The blood count showed that the red cells numbered 4,800,000 per cubic millimetre and the white cells 57,600. Nothing abnormal was detected on examination of the heart and lungs; the pulse was 108, full, and of low tension. Per vaginam there was felt a hard mass on the right side in the situation of the broad ligament passing backwards in the pelvis to the utero-sacral ligament. There was a smaller mass in the left broad ligament. The uterus was fixed. By abdomen the spleen was felt to be enlarged. Another rigor occurred on the 12th with a rise of the temperature to 105°. Examination of the heart revealed a soft blowing systolic murmur at the apex and a slight friction sound just after systole over the sternum at the level of the fourth rib. There was no increase in the pericardial dulness The spleen was felt one inch below the costal margin. Pain was felt in the right shoulder and sterno-clavicular joint and the latter was swollen and reddened and evidently contained fluid.

Up to Dec. 15th the patient's condition was obviously getting worse. On this day the injection into the flank of anti streptococcic serum in doses of 10 cubic centimetres was commenced, a blood examination for culture purposes previously to doing so being refused. Further injections of 10 cubic centimetres of serum were given on the 15th, 16th, 17th, 19th, and 20th, six in all, the temperature fell immediately after each and no rigors occurred after the first injection. From the 20th the patient steadily improved and recovery was uninterrupted, the temperature finally falling to normal on Jan. 3rd, 1901 An urticarial rash had appeared on Dec. 28th, but was very transient. The patient was discharged on Jan 16th feeling well; the appetite was good and the bowels were acting regularly. The pain had gone from the shoulder and the sterno-clavicular joints and there was only slight stiffness on movement. She could walk well without support. Vaginal examination showed evidence of the cellulitis, but most of the swelling had gone down and there was only a little thickening.

Remarks by Mr. BEALE—Until recently the treatment of septicæmia has been limited to removing the origin of the poison, if possible, leaving the rest to the *vis medicatrix naturæ* and at the same time trying to aid the resistance of the body by the exhibition of stimulants. To be sure that a particular case is in reality one of streptococcal septicæmia the only infallible method is to make cultures from the blood on nutrient media and to have them examined by a bacteriologist. Unfortunately in this case permission to do so was rescinded at the last moment, and the anti-streptococcic serum was administered on the supposition that the case was one of septicæmia judged by the history and clinical signs. I think that I shall be able to show that these make the diagnosis quite clear.

The case commenced with a hæmorrhage from the uterus, possibly due to a miscarriage, which was allowed to continue for three weeks and was then followed by some manipulation, the nature of which I am unable to determine, but whatever it was it would give an opportunity for septic infection. This was followed shortly afterwards by a purulent discharge and the occurrence of pelvic cellulitis and by collections of pus in the pelvis and ovary. Passing on to the time when the septicæmia is supposed to have become evident we find a sudden rigor on Nov 30th, followed by a rise of temperature to 104 4°, and from this point the fever continued to be intermittent, another rigor occurring on Dec. 4th and again on the 12th, and a succession on the 14th and 15th. This, with the facial aspect and attitude and the presence of the enlarged spleen and diarrhœa, indicated that she was suffering from an extreme toxæmia. In addition to these, in septicæmia in all but very slight or rapidly fatal cases we should expect a leucocytosis, which was present in a marked degree This, with the absence of a characteristic eruption and a continued fever, served to distinguish it from typhus and enteric fevers the only two causes from which any difficulty of diagnosis could arise. In addition to the foregoing we have the development of a cardiac murmur and the joint condition as evidence in favour of septicæmia.

Considering now the reaction to treatment with anti-streptococcic serum we find that the behaviour of the temperature is remarkable, for each injection of serum was followed very soon by a rapid fall and a decline in the fever, till on Dec. 17th there was none. No serum was given after noon on the 17th and none at all on the 18th, but that night the temperature rose to 101°, and fell again after injection and similarly on the evening of Dec. 20th, after which it showed no tendency to rise much above 100°. This behaviour clearly points to cause and effect, for it can hardly be supposed that the considerable fall after each injection was a mere coincidence. The urticarial eruption which appeared on Dec. 21st was either the result of the septic poisoning or of the injection of the serum, and in this respect resembled the erythematous eruptions so often seen in diphtheria wards. It is interesting to note that there were no disagreeable sensations experienced by the patient after any injection except pain at the site, nor were there any collapse symptoms. I think that the foregoing facts clearly show that the case was one of septicæmia and that it was cured by the administration of anti-streptococcic serum.

I am indebted to Dr. Tate for permission to publish the case.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Arterial Hæmorrhage from the Ear and its Control by Ligature of the Common Carotid.—Acute Leukæmia.

A MEETING of this society was held on April 23rd, Dr. F. W PAVY, the President, being in the chair.

Mr. WALTER G SPENCER read a paper on Arterial Hæmorrhage from the Ear and its Control by Ligature of the Common Carotid Artery. He considered in this paper cases of severe, recurring, and ultimately fatal arterial hæmorrhage from the ear in cases of suppurating otitis media. Such cases were shown by post-mortem examination to be due to ulceration into the internal carotid artery at, or close to, its curve in the petrous bone All these were necessarily advanced cases in which the prospects of surgical interference appeared to be unfavourable; but if all the recorded cases were considered it was shown that they fell into three groups 1 Cases entirely unfavourable on account of being secondary to pulmonary tuberculosis, in which, although the hæmorrhage might be controlled, yet death ensued sooner or later from the pulmonary disease. 2 Cases of chronic ear disease which by modern methods were preventable by a timely operation on the middle ear and antrum. Perhaps also large doses of mercury had bad effect in some of the older cases. 3. In a third group of recent cases arising after acute inflammation in children the hæmorrhage had been successfully controlled by ligature of the common carotid. In the absence of post-mortem evidence the source of the hæmorrhage was conjectural, but it came most probably from the carotico-tympanic twig close to its origin from the internal carotid artery in the carotid canal. A clot might form in the proximal end of this branch after the ligature and so prevent retrograde hæmorrhage. When, however, the disease extended from this branch to the wall of the artery itself so as to perforate it, it was unlikely that any clot would be sufficient to restrain the retrograde hæmorrhage. A summary of many of the recorded cases, illustrative of these several groups, was given, and one under the care of Mr. Spencer was narrated. In the first and second groups ligature of the common carotid was advisable as a palliative measure, but cases in the third group were regarded as the most favourable for operation. The common carotid should be selected for ligature, not the internal, for many reasons.—Mr. W. MACADAM ECCLES remarked on the rarity of such cases as that recorded by Mr. Spencer. He asked—Had there been any other treatment of the ear after the hæmorrhage? Would Mr. Spencer advise ligature in all of these cases instead of other measures? What was Mr. Spencer's experience of ligature of the carotid in young subjects for conditions other than ear disease? In a child, aged two years, he (Mr. Eccles) had recently tied the carotid for hæmorrhage from the neck after removal of caseous glands. It was, of course, a serious procedure both in its immediate and remote effects.—Mr SPENCER, in reply, said nothing was done to the ear of his patient for some time after the hæmorrhage. As to other methods of treatment, plugging, though usually tried, was of no use—the plug was generally forced out. Mr. Spencer then referred to some other conditions which rendered ligature of the common carotid necessary.

Dr. ARTHUR G. PHEAR narrated the particulars of a case of Acute Leukæmia. The patient was a man, aged 21 years, who after a few weeks' illness was admitted under the care of Dr. Alexander Haig at the Metropolitan Hospital. The leading symptoms of his illness were (1) marked and increasing anæmia; (2) fever of moderate degree; (3) stomatitis, affecting chiefly the gums, which were swollen, spongy, and later ulcerated; (4) enlargement of the lymphatic glands, limited at first to the submaxillary and cervical glands, afterwards involving the glands generally; (5) moderate enlargement of the spleen; and (6) a special kind of leukæmia. The blood contained 404,000 white corpuscles per cubic millimetre, the proportion of white to red corpuscles being one to three. The normal forms, excepting the basophile cells, were all involved in the increase. Abnormal forms were present in large numbers, consisting chiefly of large cells, each with a single voluminous nucleus, differing from myelocytes in the absence of neutrophile granulation. At the post-mortem examination there were found a persistent thymus gland, enlarged lymphatic glands, superficial and deep, and enlargement of the tonsils and of the spleen. The lymphoid follicles of the large intestine were swollen and ulcerated, the bone-marrow from the femur was opaque and pink in appearance and firm in consistence, and the marrow-juice abounded in cells similar to the large mononuclear cells of the blood. The microscopic examination disclosed a widespread overgrowth of lymphoid tissue in which the preponderating cells were not similar to those of normal lymphoid tissue, but consisted of large mononucleated cells closely resembling the abnormal leucocytes that during life had been found so abundantly in the blood. Microscopic specimens from the case were exhibited.—Dr. J. ROSE BRADFORD remarked that they knew very little of the nature of acute leukæmia. He believed, however, that it might be less rare than was generally supposed. It was often discovered by accident. The malady simulated a stomatitis, or, as in one case which he had seen, malignant disease of the lower jaw. Such cases certainly emphasised the necessity of a more systematic and routine examination of the blood. Three symptoms, purpura, stomatitis, and pallor together, should make one suspect the disease. Was acute leukæmia, he asked, of an infective nature arising in the mouth? It was a curious circumstance that the excess of lymphatic tissue seemed to lead to a diminution of the normal forms of leucocytes. The case before the society was no doubt a genuine case of acute leukæmia. In future cases it would be of interest to see if the blood or marrow of the bones contained any parasitic protozoa.—Dr. CHARLES REISSMANN remarked that the case brought before the society by Dr. Phear was one of interest because cases of lymphatic leukæmia such as this were much less common than cases of myelogenic leukæmia. Comparing these two conditions, he remarked that in the latter the cells which were found in increased numbers in the blood were the granular leucocytes, those forms which were known to react to chemiotactic stimuli. They were cells which had the power of spontaneous locomotion, and Ehrlich considered myelogenic leukæmia to be an active leucocytosis. In lymphatic leukæmia, however, there was an increase, not of the granular leucocytes, but of the non-granular, non-amœboid lymphocytes. These were not known to react to chemiotactic stimuli. Their number was increased in the blood when an alteration took place in the circulation of lymph through lymphoid tissue. Thus it occurred during digestion, when there was an active circulation through the lymphatic glands of the intestine. So also it occurred as the result of pilocarpin injections This, then, might help to throw light on the pathology of lymphatic leukæmia. Turning to the question whether this disease might be due to a parasite Dr Reissmann referred to Löwit's observations, the latter having found certain bodies in the blood of myelogenic leukæmia which he termed parasites. In a case of this nature now in the Middlesex Hospital Dr. Reissmann had found these bodies. But they occurred chiefly in the mast-cells. Using the same method of preparation of films he had found similar bodies, though smaller, in the blood of healthy rabbits and he believed them to be mast-cell granules swollen out and deformed during the process of staining. A small quantity of blood from the patient referred to was injected into the vein of a rabbit by Mr. A. G. R. Foulerton for Dr. Reissmann. The rabbit died a few days later but no changes were observed in its blood. It was, nevertheless, possible, and even probable, that both forms of leukæmia might be due to a parasite, and if so in lymphatic leukæmia the point of entrance was very probably the mouth.—Mr. SPENCER remarked that many of the cases belonging to this group of disorders ran one into another. They were probably due to parasitic infection. As to the point of entry, the glandular enlargements were some guide, but there seemed some evidence that the tonsils or the intestinal mucous membrane might also be the portal of entry.—Dr. THOMAS BARLOW remarked that one of the most interesting features of this case was its possible mode of origin. There was stomatitis in Dr. Phear's case. He (Dr. Barlow) referred to the case of a boy, aged six years, who was admitted to hospital for inflamed tonsils; they were sloughy-looking but were not diphtheritic. Later he developed hæmorrhagic stomatitis. Enlargement took place in the glands around the jaw and also the spleen and lymphatic glands in different parts of the body. There were considerable pallor and evident leukæmia. The patient died in three or four months. The diagnosis was confirmed and there was central necrosis of some of the glands. The interest of this case rested in its having started with buccal and throat affection It was so very markedly the feature in these cases of acute leukæmia to get stomatitis that it separated some of these cases from others of the same group which were not connected with stomatitis—Dr. PHEAR, in reply, said there had been no purpura in his case at any time. In this case the condition of the mouth was the first symptom, but in some other cases this was not so.

MEDICAL SOCIETY OF LONDON.

A Case of Extensive Enterectomy.—Intestinal Anastomosis for Atony of the Colon.

A MEETING of this society was held on April 22nd, Mr. JOHN H. MORGAN, the President, being in the chair.

Mr. ARTHUR E. J. BARKER read a paper on a case of Extensive Enterectomy. The case illustrated the dangers which sometimes arose as sequels to ordinary strangulated hernia where the bowel in the sac appeared to the naked eye fairly satisfactory and was consequently replaced within the abdominal cavity. The patient was a woman, aged 39 years, who had suffered from symptoms of strangulation in a right femoral hernia for only a few hours. The usual operation was done and a loop of small intestine was found which, though much discoloured, appeared in other respects quite viable. It was washed and replaced in the abdomen and a radical cure followed. Recovery was by primary union and the patient left hospital on the sixteenth day quite well. Soon after she had a violent attack of intestinal obstruction which, under the skilful treatment of her medical man, subsided in due course. Some weeks later, when she had returned to her home in Cornwall, a more violent attack of obstruction took place accompanied by general peritonitis. When this had subsided her medical man sent her up to town again with a view to ascertaining what was the cause of these attacks and whether they were connected with the old strangulated hernia. With this view Mr. Barker agreed and opened the abdomen in the right linea semilunaris. The obstruction was found to be due to kinking of the bowel which had lain in the hernial sac; there was also some shrinkage of the lumen of the bowel at the spot originally constricted in the ring. This shrinking was partly due to ulceration of the mucous coat and partly to inflammatory matter externally to the constriction. The latter was so extreme that nothing but enterectomy offered any hope of remedy. There was extensive matting together of all the adjacent coils of intestine both above and below the narrowing, so that an extensive resection had to be done. The whole mass of matted intestine was resected, amounting to 37 inches, and an end-to end anastomosis was made by suture in the usual manner. The wound was drained with gauze for a few days and then allowed to close. Recovery was uneventful. This case suggested, Mr. Barker thought, that in those instances—which were not uncommon—in which a loop of intestine had been damaged by strangulation, but was to the naked eye far from gangrenous, a wider use might be made of enterectomy than had hitherto been the case. *The risks of returning doubtful* bowel *into the abdomen* were frequently illustrated in practice and were probably greater than a properly planned enterectomy. Mr. Barker for his part recalled many cases in which he regretted not having resected the bowel instead of taking the chance of its recovering its perfect vitality and functions without adhesions. All Mr. Barker's resections of bowel done within the last two years by simple suture had been successful; he had therefore a decided preference for suture rather than for any form of button.—The PRESIDENT remarked that Mr. Barker's case raised the important point of deciding what action should be taken with strangulated bowel and the possibility of resulting constriction and subsequent obstruction. The younger the surgeon the more likely would he be to resect suspicious-looking bowel. Very often very severely damaged bowel would recover and for his part he would hesitate to remove intestine which showed definite signs of vitality. There was danger in removing the bowel in spite of modern methods. The occurrence of stricture after operations for strangulated hernia must be very rare; it certainly was in his experience, and he would be inclined not to resect the bowel if it presented signs of life.—Mr. J D. MALCOLM remarked that this case raised several interesting points. There was no doubt in this case that the bowel was in a condition capable of recovery; and as there was in most such operations a risk of adhesions taking place he questioned the advisability of resection. He had recently operated on a very large inguinal hernia and put back the bowel matted together with a lot of adhesions, and the case did well.—Mr. BARKER, in reply, said that when he examined the loop of intestine after washing it there was not a trace of adhesion, it had not lost its gloss, and the circulation was recovering; but inside there must have been ulceration. It looked a promising case. This patient, however, really ran considerable risks, as shown by the subsequent attacks. It was important to divide the bowel well above and below the diseased portion, and this might be done fearlessly; he had recently removed five and a half feet of intestine from a patient, 76 years of age, with impunity.[1]

Mr. MANSELL MOULLIN read a paper on a case of Obstructive Atony of the Colon treated by Anastomosis The patient was a woman, aged 29 years, who was admitted to hospital in October, 1900 The illness had begun seven years before with attacks of diarrhœa each lasting a few days, separated by intervals of health. At the end of a year the most obstinate constipation set in. There were also severe attacks of "colic" and great pain on defecation. The patient became bedridden and greatly emaciated (weighing only six and a half stones) Purgatives were administered at first with benefit, but in a little while these failed altogether and for the last five years no action of the bowels had taken place excepting after enemata. The last three years had been *spent almost entirely* in hospital. The appendix had been removed, and, in addition to this, laparotomy had been performed on two occasions with the view of obtaining relief from pain. Massage, galvanism, large doses of belladonna, and other remedies were tried without avail. The abdomen was accordingly opened for the fourth time and a lateral anastomosis by direct suture established between the ileum and the sigmoid flexure. The next day the patient passed a liquid motion naturally, the first for five years. Two days later another was passed. The wound healed up without being touched and the patient left the hospital, having put on more than a stone in weight, free from pain, with the bowels acting readily after occasional doses of compound liquorice powder. Mr. Moullin suggested that a similar proceeding might be adopted in cases of intense colitis in which it was thought advisable to give the colon rest in preference to establishing an artificial anus in the cæcal region with all the inconvenience of the constant discharge of liquid fæces. As regards the case which he had brought forward he had quite recently heard that the patient was passing scybala again and the constipation was returning. This pointed to contraction of the anastomotic orifice. Unless this was made of enormous size it was sure to undergo contraction.—The PRESIDENT remarked that the occasion for such operations must be very rare. He would like to ask if any apparatus was used. It would be interesting to know what became of the intervening piece of colon.—Mr. ALBAN DORAN wished to raise the question whether such operations would be justifiable for tympanites. He referred to a case with *great swelling, but the patient suffered no inconvenience* excepting when she "took cold" or suffered from some other trifling derangement of health, then the swelling and discomfort were extreme. He had also met with other cases which were much more serious. Why not resect the intestine in such cases? But it was not the colon which was alone at fault, it was probably a derangement of the sympathetic nerves, and unless the jejunum and sigmoid were anastomosed they would have tympanites still. These very severe cases of tympanites in middle-aged persons were, in his belief, of nerve origin.—Mr. MALCOLM referred to a case resembling the one under consideration. The patient was a woman, 55 years of age, upon whom he had operated several times, removing *the appendix, opening the cæcum,* and removing part of the colon. He proposed to connect the small intestine to the large gut.—Mr. BARKER referred to a case in which he had made a somewhat similar anastomosis to obviate the distress of a fæcal fistula in the right groin which had resulted from an abscess. He "kinked" the intestine, but this was not a success because the fæces continued to pass, as he found at a subsequent operation. He quite concurred in the view that these operations were not so difficult as had been thought. He was of opinion that for cases of chronic colitis transplantation was preferable to right inguinal colotomy.—Mr. MOULLIN, in reply, said that he had united the *ileum to the colon by a double set of* sutures. A lateral anastomosis between the ileum and the colon had a tendency to contract unless made of colossal size. A large proportion of the cases, such as the one he had narrated, were of a neurotic origin, but, nevertheless, surgical intervention was justifiable.

OBSTETRICAL SOCIETY OF LONDON.

Saline Infusion in Puerperal Eclampsia.—Exhibition of Specimens.

A MEETING *of this society was held at 20, Hanover-*square, W., on April 3rd, Dr. PETER HORROCKS, the President, being in the chair.

Dr. ERNEST W. HEY GROVES read a paper on the Pathology and Treatment of Puerperal Eclampsia, with special reference to the use of saline transfusion, with notes of two cases. The first case was that of a primipara, aged 23 years. She had an easy labour in the absence of medical attendance. There were eclamptic convulsions and coma immediately after, which increased in severity for 12 hours in spite of morphia and pilocarpine. Endovenous injection of 100 ounces of hot normal saline was followed by rapid improvement. The coma and convulsions lessened at once and the *fits ceased* within three and a half hours. The coma passed off and diuresis occurred in 13 hours. The second case was that of a secundipara, aged 21 years. Convulsions and coma with anuria ushered in labour at full term. The fits were of extreme violence and numbered about 26 between 2 A.M. and 4 P.M., when 70 ounces of hot normal saline were injected into a vein. The child was born at 6 30 and died almost at once. Frequency and violence of the fits lessened after transfusion, and ceased within 14 hours, while the coma passed off and diuresis was established within 48 hours. The return to consciousness was followed by two days of violent transitory mania and a week after delivery a relapse of the anuria and delirium threatened as the result of a large meat meal. Dr. Groves proceeded to tabulate 47 cases of puerperal eclampsia treated by this method by different observers, chiefly Porak (13) and Jardine (22). These showed a mortality of 12·7 per cent. A summary of the principal facts relating to the pathology and morbid anatomy of eclampsia was given, proving the toxic nature of the disease and showing the essential lesion to consist of minute capillary thrombi with hæmorrhagic infarctions, surrounded by tissue necrosis. This lesion was shown to be of the same character in the brain, the liver, and the kidneys, and to occur also in the lungs, the spleen, and other organs. The greatly increased coagulability of the blood was related to this lesion. The origin of the toxins was considered to be threefold: (1) from the placenta; (2) from the fœtus; and (3) from the alimentary canal. The pre eclamptic stage of the disease was caused by the presence of the toxins in the blood. The actual convulsions and coma resulted when these toxins caused the coagulation of the blood and the multiple capillary thrombi. Dr. Groves concluded by suggesting that the therapeutic action of the saline solutions depended upon its hindering the formation of the capillary thrombi and dissolving those just formed. He pointed out that it could not act primarily as a diuretic because diuresis occurred after the convulsions had ceased. He also referred to cases in which gelatin injections had caused symptoms of anuria and uræmia accompanied by multiple thrombosis, arguing the possibility of these conditions arising from a morbidly increased coagulability of the blood.

---

[1] THE LANCET, page 1186 of present issue.

Dr. HERBERT SPENCER congratulated Dr. Groves upon his interesting paper. He (Dr. Spencer) had only employed saline infusion in two cases, and although both these cases recovered he was far from attributing the result to the saline infusion. The mortality of eclampsia varied greatly. Before the treatment by morphia he had had a long series of successful cases and then several which were fatal. He thought that cases treated by morphia did better than those treated by chloroform, chloral, and bromides, &c., but he had had failures with the morphia treatment too. In his experience, however, morphia lessened the fits more than any other treatment, and as the diminution of the fits lessened the chance of cerebral and hepatic hæmorrhages he thought its value was great, though its employment was not free from danger. In one case, where there was a good deal of œdema of the legs, he had made incisions into the legs and fomented the incisions with a view to aid the elimination of the poison, and as the case recovered he would be inclined to try the effect of the incisions in other cases. With regard to the effect of saline infusions, he had tried their effect in cases of uræmia 12 or 14 years ago without benefit. Dr. Groves had compared the mortality of cases treated by saline infusion with that of cases treated by other methods to the disadvantage of the latter, but it must be remembered that from the former (all modern) cases septicæmia had been in great part eliminated, whereas it caused a considerable part of the deaths of the older statistics. Moreover, there was a tendency to publish successful cases where a new method of treatment was concerned, whereas if the case terminated fatally it was more likely to be unrecorded. One remark in the paper needed correction—namely, the statement that the mortality of cases treated without saline infusion was "never less than 20 per cent." Ebinger had published a series of 28 cases from the woman's clinic at Kiel, 1894–1900, with four deaths, a mortality of 14 per cent. If two cases (one fatal) in which saline infusions were employed were excluded it would be seen that the mortality (11 per cent) was less than that given by the author for cases treated by saline infusion. Dr. Spencer urged that saline subcutaneous infusions should be made with strict aseptic precautions and that large quantities should not be injected at one spot, several cases of local gangrene and even fatal septicæmia having been recorded He was not convinced that saline infusions had lessened the mortality of eclampsia.

Dr. G. E. HERMAN highly appreciated Dr. Groves's scholarly paper. He agreed with Dr. Spencer in thinking that the figures given were not convincing as to the superiority of this treatment. Veit, in his lecture advocating the treatment of eclampsia by morphia, had reported 60 cases with only two deaths; and Charpentier, in a paper advocating treatment by chloral, had collected 239 cases, with a death-rate of only 4 per cent. Here were a larger number of cases and a smaller death-rate than what was now put forward as evidence of the benefit of infusion of saline fluid. The theory put forward was that in eclampsia the coagulability of the blood was increased, but the only evidence of this was that in some cases the medical attendant had been surprised at the small amount of blood lost. Physiologists had, he believed, apparatus for exactly measuring the rate of blood coagulation, and it would be more convincing if the coagulability of the blood in eclampsia had been measured by an instrument of precision. He did not attach importance to the morbid condition said to have been found in the brain and quoted by Dr. Groves. Were the miliary hæmorrhages described by Dr. Groves anything but ecchymoses, such as were seen under the skin, the pleura, and elsewhere, and due to the tremendous venous congestion during the fit? Large cerebral hæmorrhage occurred so seldom that it could not be due to any condition which was a regular and essential part of the disease. He thought that cerebral hæmorrhage was occasionally seen in eclampsia because in a few cases granular kidney and the vascular degeneration associated with it were present, and in such cases the arterio-capillary changes predisposed to cerebral hæmorrhage. Pregnant women with previously diseased kidneys were more liable to eclampsia than those with healthy kidneys. Dr. Groves had described the chronic renal disease of pregnancy under the name of the "pre-eclamptic stage." He (Dr. Herman) thought that this term was hardly appropriate, seeing that not more than one in five of the cases suffered from eclampsia, and that in some cases eclampsia came on without any pre-existing renal disease. He thought the essential morbid condition in eclampsia was the acute degeneration of the cells in the great glands, the liver, and kidneys, and that the hæmorrhages were incidental and a result of the fits.

After some remarks by Dr. C. O. FOWLER and Dr. JAPP SINCLAIR,

Dr. W. S. A. GRIFFITH said he wished, in the first place, to point out the important mistake which Dr. Groves and many other writers on the subject made in discussing this subject under the title of "puerperal eclampsia," the disease being one of far wider extent than this term would indicate, for the cases in which eclampsia occurred were only a small fraction of the total number of cases in which the disease underlying eclampsia—namely, toxæmia with nephritis—was found. It was essential that the disease should be studied in a much wider sense, beginning with the cases in which albuminuria and dropsy in slight degree were the only recognisable symptoms, to the graver cases increasing in severity until even without eclampsia the health, if not the life, of the patient was in great danger, and through these to the cases in which convulsions and coma occurred in varying degrees of severity. Such a method would be of the highest benefit to the practitioner, for it would lead him to a more rational and probably more gentle method of treatment in the urgent cases and to a more rational and more active treatment in the cases which by the absence of eclampsia appeared to be less urgent. Cases of eclampsia and placenta prævia were alike in many ways. They suffered alike from the alarm to which they gave rise and the danger of the methods adopted for their relief. The same principles of treatment applied to both, and while the fact was recognised that the patient's safety was greatly increased by delivery it was forgotten in the hurry and anxiety to carry this out that the means used must be safe and not add to the danger. Forced delivery, morphia, pilocarpine, and septicæmia claimed many victims who ought to have survived if less heroic measures had been adopted. The method advocated by Dr. Groves was quite unnecessary except in a few special cases, but in these it would appear to be of real value by keeping the patient alive until the kidneys and other organs were able to resume their work.

On the motion of Dr. J. W. EDEN, seconded by Dr. A. E. GILES, the discussion was adjourned to the next meeting of the society on Wednesday, May 1st.

The following specimens were exhibited:—

The PRESIDENT: A Uterus from a case of Deciduoma Malignum with Microscopic Sections.

Dr. SPENCER: A Cystic Fibroid removed by Posterior Colotomy.

Dr. H. R. ANDREWS: Kidneys from a fatal case of Puerperal Eclampsia with Microscopical Sections.

The specimens were discussed by Dr. G. F. BLACKER, Dr. VICTOR BONNEY, Dr. HENRY BRIGGS, Dr. GRIFFITH, Dr. HERMAN, Dr. AMAND ROUTH, Dr. JAPP SINCLAIR, and Dr. BELLINGHAM SMITH.

HARVEIAN SOCIETY OF LONDON.

Exhibition of Cases.—Some Practical Observations on Antiseptic Surgery.

A MEETING of this society was held on April 18th, Mr. ALBAN DORAN, Vice-President, being in the chair.

Mr. H. J. CURTIS showed an Infant with Extreme Hemiatrophy of the Head and Face.—The case was discussed by Mr. DORAN, Dr DUNDAS GRANT, Dr. S. G. FELOE, Dr. C S JAFFÉ, Dr. J. M. FINZI, and Mr. J. JACKSON CLARKE.

Mr JACKSON CLARKE showed a case of Contracture of one Rectus Abdominis Muscle causing Spinal Curvature. The patient was a girl, aged nine years. Three months ago he had shown the same patient to the society. At that time there was a marked C-shaped kyphosis affecting the whole spinal column from the skull to the sacrum. The deformity was fixed, not being diminished by the patient's efforts or by passive force. Such fixed deformity had been termed "osseous," but this was not necessarily the case; thus in the present instance the spine had been brought straight by means of an antero-posterior splint and daily exercises. Beyond the straight position in the present instance no further correction could be obtained. This was accounted for by the condition of the left rectus muscle which was shortened and indurated. It recalled the condition of the affected sterno-mastoid muscle in congenital wry-neck. In the present instance no further improvement in the form of the spine, and hence no improvement in the patient's respiratory capacity, could be obtained without lengthening of the affected muscle. This effect would need to be obtained without interrupting the continuity of the muscle.—Mr. DORAN and Dr. DUNDAS GRANT discussed the case.

Mr. JACKSON CLARKE also read a paper entitled Some Practical Observations on Antiseptic Surgery. As applied to surgical work the terms "antiseptic" and "aseptic" were synonymous; whether pathogenic organisms were destroyed by chemical means or by heat it was equally in keeping with the principles of Listerism. Suppuration was to be regarded as a group of closely allied infective diseases. No surgeon or nurse who had any point of suppuration about the hands should take an active part in an operation. Suppurative foci about the patient's skin should also, whenever circumstances allowed, be cured before an operation was done. For preparing the patient's skin or the surgeon's hands for treatment by antiseptic lotion ether soap was to be preferred to turpentine. The soap should be applied to the dry skin and then thoroughly removed by warm water. The surgeon's hands should be kept smooth by the use of glycerine and water after each operation. Where a high-pressure apparatus for the sterilisation of dressings, towels, &c., was not at hand a clean potato-steamer kept briskly boiling for half an hour would answer the purpose. Real sponges formed the best of swabs because they did not leave any of their substance behind in the tissues; they should, however, not be used save when prepared under the surgeon's own supervision. Their proper preparation occupied four days and they should be dried in a dust-proof envelope. Lint swabs wrung out of 1 in 40 carbolic were not sterile; even small portions left behind in a wound caused suppuration. Swabs of absorbent wool inclosed in a double layer of gauze having its cut edge turned inwards were preferable. Mechanical aids to asepsis were never to be neglected. Careful shaving and the thorough removal of loose hairs were imperative wherever visible hair was present on the part to be operated upon. The mechanical removal of grit, &c, from wounds, combined with vigorous douching with warm saline solution, was often preferable to the use of carbolic or other lotions in recent wounds. Silk ligatures might be boiled for five minutes in 1 in 20 carbolic lotion without losing much of their strength; like other ligatures, they should be kept in 1 in 20 carbolic. All drainage-tubes should be boiled before being used. As a dressing in the case of clean wounds Mr. Clarke preferred to apply two layers of cyanide gauze next the skin; over that as much sterilised absorbent wool as was required, and over this again two layers of cyanide gauze. Iodoform was not an antiseptic in the same sense as was carbolic acid or as were the salts of mercury. It should not be applied to clean wounds, but it should be reserved for cases in which complete asepsis was impracticable. A stock of 10 per cent. iodoform-glycerine emulsion should be kept, and in cases in which packing was required sterilised ribbon gauze should be passed through the emulsion well stirred up, and after the surplus had been squeezed out the gauze should be applied to the wound. When saline solution was to be used for intravenous or subcutaneous injection it should be filtered through sterilised white (Swedish) filter paper.—Mr. DORAN had heard numerous discussions on the relative merits of different antiseptic methods as applied to abdominal surgery for over 20 years. Further experience usually proved that the disputants never understood what the term "antiseptic" precisely meant. Wells's "toilet of the peritoneum" was essentially an antiseptic measure, whilst carbolic solutions, though antiseptic, were not disinfectant and thus failed where sepsis was already present. One strong opponent of "Listerism" and "asepsis" used the drainage tube freely, whilst another flushed the peritoneum with hot water, practices designed to remove septic products and therefore coming within the province of the new surgery which they condemned. Long statistical tables of an operation undertaken by one surgeon never proved the value of his method; his experience and dexterity rather than his lotions and dressings produced the good results. Antiseptics could never be soundly advocated by such publications. Mr Clarke had wisely eschewed any recital of his own operative triumphs and had indicated rather how he thought that they should all set to work when they desired to practise true antiseptic surgery.—Mr. HUBERT C. PHILLIPS remarked that Mr. Clarke had made no reference to the after-treatment of wounds—operation or traumatic—by antiseptic dressings, and he called attention to the efficacy of collodion freely painted over strips of cyanide gauze as a means of keeping wounds free from external septic contamination and infection.—Dr. FINZI made a few remarks extolling the value of iodoform as an antiseptic surgical dressing, instancing its value especially in cases of gangrenous ulcers, in operations on the tongue, and as a surgical dressing after circumcision.—Mr. CAMPBELL WILLIAMS, Dr. DUNDAS GRANT, and Mr. H. M. PAGE also took part in the discussion and Mr. JACKSON CLARKE replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

Discussion on the Rotunda Hospital Report.

A MEETING of this section was held on March 15th, Dr. A. V MACAN, the President, being in the chair.

Dr W. J SMYLY congratulated the Master of the Rotunda and his assistants upon the excellence of their report, which was creditable not only on account of the brilliant results obtained, but also for the manner in which the work had been recorded. He, however, deplored the classification of abortions as preventable and inevitable, and the absurdity of this classification was demonstrated in the report by the statement that out of a large number of abortions which actually occurred only eight were inevitable. He further objected to the term "induction of abortion" being applied to cases in which sea-tangle tents and tampons were introduced on account of hæmorrhage. In such cases the ovum was already partly detached, and this measure only accelerated a process already begun. Induction of abortion was a very serious procedure, only to be undertaken on the most urgent grounds, and after consultation. With regard to rupture of the uterus he had had good results with iodoform gauze drainage and bad results from operative measures, but in a paper recently published by Dr Klein of Dresden with a careful analysis of 381 cases it appeared that the results were about the same, the mortality after operation being 44 per cent, whilst in those drained, tamponed, or douched it was 39 per cent.

Dr. J. H. R GLENN thought that the report could be very greatly improved. It was full of both typographical and grammatical errors. The cases generally were very incomplete. Case 4, page 2, was most interesting, but there was no diagnosis. In Table IV. there was mention of 13 cases of version—there were several kinds of version, and all through the report he had looked to see if there was any attempt first made at external version, but could see none. He noticed that they had gone back to the old term "transverse" instead of "oblique" presentation. As to the cases of contracted pelvis, he believed, speaking from personal experience, that it took the assistants a considerable time to become adepts in the use of Skutsch's pelvimeter and meantime their measurements were not above reproach. In the table of contracted pelvis there were a great many blanks, a thing which should not be. There was no record kept of the amount of blood lost in cases of accidental hæmorrhage, placenta prævia, or post-partum hæmorrhage. This should be done by weighing diapers and sheets in the hospital. Again it was stated that "three patients who had no hæmorrhage on the couch lost a considerable amount on being put to bed." His explanation of that was the fussiness of sisters and lady superintendents in their anxiety to have the labour ward ready for the next case. He thought that it would be a great improvement if, as in the London hospitals, the report was entrusted to a medical or surgical registrar accustomed to the work year after year. Such a man would produce a more scientific report, and could also do some original work, which was badly wanted in Dublin, where a large amount of valuable clinical material was wasted.

The PRESIDENT agreed with Dr. Glenn that the report contained some extraordinary mistakes. It seemed to be the routine treatment to curette all cases where the temperature went up in the puerperal state, but he did not think it right. He thought 29 cases of manual removal of the placenta a large number. There seemed to be a great many cases of post-partum hæmorrhage. It was stated that "some cases of secondary post-partum hæmorrhage were due to retained membranes, and yielded to suitable treatment." It was many years since he (the President) came to the conclusion that retained membranes could not cause hæmorrhage. In cases of badly contracted uterus both hæmorrhage and retention of membranes occurred, and in removing the latter the insertion of the hand made the uterus contract and stopped the hæmorrhage.

Dr. H. JELLETT, Dr. LANE, and Dr. SMITH also took part in the discussion.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.—An ordinary meeting of this society was held at the North-Eastern Hospital for Children on April 19th, Dr. A. Ernest Sansom being in the chair.—Dr. Sansom showed a lad, aged 11 years, many of whose joints were affected with Arthritis Deformans. There were no enlargement of the spleen and no structural affection of the heart. The skin was slightly pigmented. Onset occurred with a subacute attack simulating "rheumatic fever." There was no family history of rheumatism. Great improvement had taken place under massage and measures likely to promote good nutrition.—Mr. R. Clement Lucas suggested that the joint mischief might have originated in a focus of suppuration about the jaws, tonsils, or elsewhere. In a recent case he had found staphylococci in fluid from a hip-joint affected with osteoarthritis. He inquired whether a bacteriological examination had been made in this case.—Dr. Theodore Fisher, Mr. Milner Burgess, and Dr. George Carpenter made remarks.—Dr. Sansom, in reply, said that no focus of suppuration had existed nor was a bacteriological examination carried out.—Dr. James Taylor showed a case of Muscular Atrophy which he believed to be a connecting link between pseudo-hypertrophic paralysis on the one hand and progressive muscular atrophy on the other. In addition to hypertrophy of the muscles there was also considerable wasting. The boy, now aged 10 years, had been under observation for three years and his symptoms had rather improved than become worse. The disease was not symmetrical; there were marked fibrillary twitchings in the affected muscles.—Dr. J. H. Sequeira showed three patients suffering from Progressive Muscular Atrophy. The characteristic phenomena were present. An interesting feature was that although the patients were members of large families yet there was no similar affection in the brothers and sisters.—Dr. Douglas Drew demonstrated three cases of Nævo-Lipoma for Mr. A. B. Roxburgh. The lesions affected the leg and lower part of the thigh in one case, the thigh in a second, and the pectoral, axillary, and intra-spinous regions in the third case.—Dr. Drew also showed a child, aged six years, upon whom he had performed McEwen's Osteotomy for Genu Valgum 12 months ago. The results of the operation were satisfactory in straightening the limb, but although splints had been worn since the operation the latter had failed to cure the dislocation of the patella. Dr. Drew intended to perform a second operation for the dislocation.—Dr. J. Porter Parkinson showed a Gumma in the Heart of an infant, aged three months. The lungs and spleen contained tubercle. The gumma, which lay in the wall of the left ventricle just below the auriculo-ventricular groove, was three-quarters of an inch in diameter and proved to be a pale, tough, yellow mass, well marked off from the adjacent muscle. Mr. Targett reported that the lesion "may be regarded as a gumma of the heart."—Dr Carpenter thought the mass might equally well be one of tubercle. He had published an almost similar case four years ago.—Dr. Fisher regarded the absence of caseation from the specimen as a point in favour of its syphilitic origin.—Dr. Parkinson, in reply, said that the evidence of gumma depended on the hardness of the lesion, the absence of caseation, and the microscopic report.—Dr. Parkinson also exhibited a Perforated Gastric Ulcer in a male child, aged two years.—Dr. Sequeira showed three children with Lupus who had been treated by the Finsen method at the London Hospital. The results had been excellent.—Dr. D. McKenzie showed an infant, aged 11 months, who had been brought up on proprietary food and was now suffering from Scurvy. She had pains and tenderness in the lower limbs and changes in the gums, but no anæmia. There were no signs of rickets.—Mr. J. H. Sanders mentioned a similar case where benefit had followed alteration in diet and the legs being put up in plaster-of-Paris.—Dr. Carpenter mentioned a case where the gums had been treated with chlorate of potash, with the result that the liver became enlarged and the child nearly died.—Dr. Sansom said that chlorate of potash was a dangerous drug owing to its destructive influence on blood corpuscles. Practitioners should think twice before administering it, especially to children.—Dr. Fisher read a paper on a case of Swelling of the Eyelids after a Warm Bath.—Dr. Carpenter and Mr. Sydney Stephenson suggested urticaria as a possible cause.

LIVERPOOL MEDICAL INSTITUTION.—An ordinary meeting of this institution was held on April 11th, Mr. Edgar A. Browne the President, being in the chair.—Dr George G. Hamilton related a case of Enlarged Gall-bladder which was adherent to Poupart's ligament.—Mr. Damer Harrisson read notes of a case of Idiopathic Cortical Hæmorrhage treated successfully by operation.—Dr. Nathan Raw mentioned a case in which he had removed a large tooth-plate from the lower end of the œsophagus by aid of the x rays. The patient, a man aged 35 years, of very powerful physique, was found attempting to cut his throat with a broken tooth-plate; on being discovered he hastily swallowed the plate, pushing it down his throat with his fingers. Examination by x rays revealed it impacted in the œsophagus, just below the level of the upper end of the sternum, at a point (measured with a sound) 12 inches from the teeth and lying transversely across the œsophagus. Repeated attempts with ordinary forceps failed; whereupon the patient was seated in a chair in front of an x-ray tube, the fluorescent screen was held up, and a pair of long forceps were passed down the gullet, being guided to the tooth-plate by carefully watching on the screen. Having obtained a firm hold the plate was dragged out. Some considerable injury must have been done to the gullet by the manipulation, for the patient had an extensive general cellulitis afterwards with great dysphagia, but he made a good recovery and was transferred to Dr. S. A. Gill of Formby for treatment of his mental condition.—Dr. Gill stated that the patient was admitted to his private asylum suffering from ordinary melancholia with suicidal tendencies. There were also external evidences about his throat of recent attempts at suicide and he constantly regurgitated from the œsophagus purulent and very offensive pus; there were also dysphagia, huskiness of voice, and some swelling about the throat. The patient had improved bodily and was now able to take the ordinary diet of the asylum.—Dr. T. B. Grimsdale read notes and showed composite charts giving the mean pulse and temperature curves in two series of cases of abdominal section, comparing the recoveries after antiseptic operations with those after aseptic operations. The ease of the recovery as shown by the pulse and temperature curves, more especially the reduction in the pulse-rate, the absence of pain after operation, and the diminished amount of flatulence, were marked features of the aseptic series. The details of the method adopted were described. The series of 20 consecutive cases consisted of four abdominal hysterectomies, six ovarian tumours (one strangulated and one complicated with abscess of the vermiform appendix), two of hydrosalpinx, one retro peritoneal tumour, three of double pyosalpinx, one ovarian abscess, and three cases of chronic peritonitis with abscess. There was no mortality in either series.—Dr Frank E. Marshall related a series of 52 cases of General Anæsthesia induced with Chloride of Ethyl, for which he claimed the following advantages: the heart and circulation were only slightly affected, the respiratory system was unaffected, the rapid induction of anæsthesia, rapid recovery of consciousness, no bad after-effects, and a longer period of anæsthesia than was produced by nitrous oxide The cases comprised 46 teeth extractions, with two failures; and six minor operations (opening of abscesses and two double tonsillotomies) —Mr. William Fingland thought that nitrous oxide as compared with chloride of ethyl had great possibilities and could be safely prolonged for the performance of many surgical operations Chloride of ethyl inhalation appeared to have many good qualities and its future development as a general anæsthetic would be of interest

FORFARSHIRE MEDICAL ASSOCIATION.—A meeting of this society was held in the University College, Dundee, on April 5th, Dr. J. G Havelock, the President, being in the chair.—Dr. J. D Gilruth (Arbroath) gave a short account of some cases of Small-pox and showed a photograph of one of the cases. The relative severity of the symptoms and their relation to the time of vaccination in each case were discussed.—Dr. J. Constable (Leuchars) discussed some cases which he had had in his practice and the supposed origin of the disease in his cases and in Dr. Gilruth's cases—viz, old clothes.—Dr. R. C. Buist suggested the possibility of infection from other ports by ships —Dr. Gilruth replied.—Dr. Gilruth also showed Radiographs of a severe case of Rachitic Curvature of the Tibia and Fibula from which he had removed wedges of bone with good result. Photographs taken before and after operation were also shown —Professor D. MacEwan showed a specimen of Tumour of the Thigh removed from a woman, aged 25 years, the nature of which was as yet undiscovered The history and characters of the tumour did not resemble those of sarcoma or myoma and the tumour itself was quite free from bone There was no history of syphilis —Professor MacEwan also gave an account of three Bladder Cases. The first was a case of recurrent calculi in the bladder. The patient, a man, had been operated on three times Eight calculi were removed at the first operation, two nine months later, and three nine months later than that. Suprapubic lithotomy was performed twice and lateral lithotomy the third time, as the cicatricial contraction resulting from the previous operations had drawn the peritoneum too far down to allow a suprapubic lithotomy to be performed successfully. The second case was one of enlarged prostate treated by double orchectomy with marked improvement. Having had hourly micturition the patient was able four months after operation to retain urine for four hours by day and all traces of cystitis had entirely disappeared Professor MacEwan reiterated the conclusions which he had formed in his paper on this subject read at the meeting of the British Medical Association at Carlisle four years ago and stated that his further experience confirmed these—viz, the diminution of the gland, vesical contractibility might return even after absence of years, and the results were quite as good as those of prostatectomy. These conclusions, he maintained held good if suitable cases were chosen. The indications for this form of treatment were given. Reference was made to the high death-rate on the introduction of this treatment and reasons were given. The mental disturbance after these operations was compared with mental disturbance after operations on other pelvic organs The third case discussed was that of a young man, aged 19 years, who had suffered from frequency of micturition. There was no stricture and no stone but the cystoscope showed an ulcer of the bladder. This ulcer was scraped and the bladder was drained after median cystotomy. Six weeks after the operation the patient was able to retain urine for six hours. This form of complaint was then discussed shortly.—Professor J. A C. Kynoch, Dr. Buist, Dr. Gilruth, and the President discussed several points in the cases —Professor C. R. Marshall then discussed the advantages of heroin and dionin, their composition, and how they had been discovered. Heroin, he said, was similar to morphine in its effects except in one important point—viz, it was less of a depressant on the respiratory system. It was more powerful than codeine but less toxic. Dionin was less powerful than heroin but more so than codeine. The uses and doses of these two substances were then given.

LARYNGOLOGICAL SOCIETY OF LONDON.—A meeting of this society was held on April 12th, Dr. Cresswell Baber, the President, being in the chair.—Mr. W. G. Spencer again showed the boy exhibited at the last meeting with a Tumour of the Right Vocal Cord and a Swelling of the Leg Both swellings had greatly improved under treatment by iodide of potassium.—Dr. StClair Thomson showed a man, aged 33 years, with Chronic Laryngitis and an Ulcer on one Vocal Cord which he suggested were secondary to pus in the nose.—Dr. Thomson also showed a case of Infiltration of the Right Vocal Cord in a man, aged 40 years, probably of the nature of pachydermia diffusa, and another case of a similar condition in a man, aged 56 years which he suggested might be due to a blood-clot simulating a neoplasm.—Dr. Scanes Spicer showed a case of Laryngeal Growth occurring on the posterior wall and accompanied by paresis of the left vocal cord which was probably malignant He also showed a case of Sub glottic Swelling of doubtful origin.—Dr Logan Turner showed a specimen of a Larynx from a case of primary laryngeal diphtheria in an adult and one of a Larynx which was studded with small white points of a doubtful nature —Mr W J. Walsham showed a case of Destruction of the Nose caused by a ferret for which 18 operations had been performed —Dr. Jobson Horne showed a case of Epithelioma of the Larynx and Dr. Fitzgerald Powell one of Tuberculosis of the Larynx —Dr. Wyatt Wingrave exhibited specimens of the two chief classes of Intranasal Papillomata, and Mr Lake drawings of (1) a Cyst of the Floor of the Nose and (2) Pachydermia Laryngis of a tuberculous nature —Dr Atwood Thorne showed a case of Pharyngo mycosis the treatment of which was fully discussed —Dr H Tilley showed a case of Antral Suppuration with marked bulging of the inner wall towards the nose.—Dr. L H Pegler showed a case of Cyst of the Thyroid Gland.—In the discussion which followed treatment by means of injection of perchloride of iron was fully entered into —Mr R S Charsley showed a case of Foreign Body in the Nose, Dr Lambert Lack a case of Unusual Tumour on the Posterior Wall of the Larynx, and Dr Dundas Grant (1) a case of Lupus of the Septum, (2) a case of Pachydermia of the Vocal Processes, and (3) a case of Specific Perforation of the Palate with ulceration of the larynx of tuberculous appearance occurring in a woman of middle age.

IPSWICH CLINICAL SOCIETY.—A meeting of this society was held on April 11th, Mr. James Hossack being in the chair.—A vote of condolence was passed to the relatives of the late Dr C M. Durrant upon his demise.—Mr H B. Rygate read notes on a case of Hyperpyrexia in a girl who was admitted to the Fever Hospital suffering from scarlet fever. The temperature rose to 106° F, but was kept down partially by means of ice and sponging. Latterly, before death ensued, the temperature, which was 106°, was unaffected by ice. The patient developed pain and swelling in the right ankle, knee, and shoulder, for which salicylates were given. Mr. Worts showed (for Dr H H Brown): (1) A case of Excision of the Jaw (with specimen); (2) a specimen of Cancer of the Peritoneum; and (3) a case of Gunshot Injury.—Mr. C K Moseley read notes upon, and demonstrated the use of, "Kelene," upon two patients —A discussion afterwards followed the general opinion being that the anæsthetic was unsatisfactory inasmuch as there was great difficulty in knowing when anæsthesia was complete, the patient being in some cases quite conscious though powerless to move.—Mr Hossack showed a specimen of Ascaris Lumbricoides 14 inches long.

SOUTHPORT MEDICAL SOCIETY.—At a meeting of this society, held on April 10th, Dr. Robert Harris being in the chair, Mr. G. Reinhardt Anderson moved the following proposition:—

> That, in view of the difficulty often arising in isolating cases of infectious disease other than those proper for admission to the public infectious hospitals, it is the opinion of this society that steps should be taken to approach the Corporation of Southport and the Local Board of Birkdale, to induce them to provide such accommodation in their new hospitals—under such regulations as would enable individual practitioners to continue in attendance upon their cases; and that a sub committee be appointed to carry out this suggestion.

This was carried unanimously and a sub-committee of eight members was appointed for the purpose.—Dr. W. A. Mackay showed: (1) a Temperature Chart of a protracted case of Enteric Fever; and (2) Pulse Tracings from a case of Mitral Disease with a Tracing of the "Recurrent" or "Return Pulse."—Dr. J. J. Weaver (medical officer of health) read a paper on the "Fourth Disease," and gave details of several cases which had recently occurred in the Borough Hospital either preceding or following typical scarlet fever. Dr. Weaver briefly discussed the symptoms and the diagnosis and an animated discussion followed.

Reviews and Notices of Books.

The Fundamental Data of Modern Pathology. By Dr. ACHILLE MONTI, Professor of Pathological Anatomy, University of Pavia. Translated from the Italian by JOHN JOSEPH EYRE, M.R.C.P. Irel., &c. London: The New Sydenham Society. 1900. Pp. 266.

IN 1897 the Royal Lombard Institute proposed as the subject for a prize essay the following theme: "What influence has the doctrine of proliferation of the cells beyond the normal exercised on the pathology of man? What has that of the pathogenic microbes? Contrast the two doctrines with others older. The advantages of both in the treatment of human infirmities." The prize was gained, very deservedly as we should imagine, by Professor Monti with the dissertation translated in this work, with a few additions, into English.

The subject proposed by the Royal Lombard Institute amounted to an invitation for a critical review of the influence of modern histology and bacteriology upon medical theory and practice. Professor Monti in his brilliant treatise has shown not only a thorough grasp of his subject in its modern developments, but a vast amount of historical learning, together with a critical faculty of no common order. He has strictly adhered to the theme proposed, and his disquisition falls into six chapters in accordance with its terms. In the first he deals with the development and doctrines of "cellular pathology," devoting a good deal of attention to the subject of karyokinesis. He traces the influence of cellular pathology upon the doctrines of inflammation, tumour-formation, and kindred matters. The second chapter treats of the evolution of parasitic theories of disease, of the paths of transmission of infections, and of the modes in which bacteria produce disease. In the two following chapters we find an admirable review of the older doctrines of pathology and of the manner in which they led up to the views held at the present day. The final chapters deal with the practical applications of histology and bacteriology in medicine and surgery, especially in the diagnosis of tumours and of infective conditions. The writer also treats of the questions of antiseptics, preventive inoculations, and serotherapy.

There is so much that is admirable in the essay that it is not easy to pick out any special parts for criticism. But we should like to call attention to the apparently in some cases well-founded claims made by Professor Monti as to the priority of certain observers, commonly overlooked, in the credit of establishing or suggesting doctrines now universally accepted. Bottini is stated to have anticipated Lister in the use of carbolic acid in surgery and to have proclaimed the doctrine of antisepsis a year before Lister's first publication on the subject. The theory which attributes the origin of neoplasms to included embryonic rudiments, usually known as Cohnheim's theory, appears to have been previously developed in some detail by Durante. The doctrine of pathogenic micro-organisms in its modern sense was first laid down by Bassi in 1835. Pacini described vibrios in Asiatic cholera in 1854 These facts do not detract in any way from the credit of those whose labours afterwards established the doctrines in question on a firmer basis, but they are of great historical interest, and Professor Monti gives chapter and verse for them all and for many more. It is pleasant, too, to find full credit given to William Addison and to Waller for their shares in the development of the doctrine of inflammation. The writer seems, indeed, more familiar with the older school of English pathology than with the labours of our more recent workers. A very important section of the last chapter, largely re-written since the work was first produced, is that relating to malaria. It constitutes one of the best accounts of the life-history of the malarial parasite and of the mosquito theory accessible to English readers. We are not in agreement with Professor Monti on every point with which he deals; notably we cannot agree with his views on the simplicity of the bacteriological diagnosis of diphtheria. The book is one, however, which will be read with pleasure and profit by everyone interested in pathology and it constitutes a brilliant addition to the critical literature of the science. We regret to add, in conclusion, that the pleasure of the reader is sadly marred by the character of the translation, upon which the new Sydenham Society can by no means be congratulated. The genius of the Italian language differs so widely from that of the English tongue that any attempt to turn the one into the other without a considerable recasting of the sentences can only end in disaster. Every page of this translation is disfigured by sentences which hardly deserve the name of English. The definite article is habitually inserted where it is not needed; words are frequently used in their wrong order and not rarely in their wrong sense. Thus the translator often writes "successive" where he means "succeeding" and "distended." where he means "spread"; on one page we even find "incommensurable" used for "innumerable." The result is often nonsense. He is addicted, too, to the use of barbarous words, such as "neoformed" and "laparotomic," and his classics are as bad as his English. Thus he coins the words "nephrites," "peritonites," &c., as plurals of nephritis, peritonitis, &c. We read of "bacillus tetanis" and learn that "Natura non facit saltus." Much of this may be pure carelessness, and, indeed, misprints are not uncommon, especially in the footnotes, but the reputation of the New Sydenham Society is too high to allow us to pass over in silence so slovenly a translation of a work of signal merit.

Diphtherie. By Professor Dr. E. v. BEHRING. Berlin: Verlag von August Hirschwald. 1901. Pp. 200. Price 5 marks.

THIS book forms one of the series belonging to the "Bibliothek von Coler" (Coler's Library), edited by Dr. Otto Schjerning, an officer holding one of the highest positions in the medical department of the German army. The works appearing under his editorship naturally, therefore, have special reference to military medicine.

This volume contains a very complete account of diphtheria from every point of view. Some interesting information is to be found under the heading "Begriffs-definitionen." This term includes not simply a "definition" of the word "diphtheria," but also a history of the synonyms which have been employed and a consideration of the confusion that at one time existed between the signification of the terms "diphtheria" and "croup."

The name of the author is sufficient to indicate that the sections on the bacteriology of the disease would be most instructive. Nor will the reader be disappointed. A detailed account of the characteristics of the Klebs-Löffler bacillus is given, including many original experiments conducted by Professor Behring himself. The bacteriological diagnosis receives due attention, but the questions of artificial immunity and serum therapeutics scarcely receive the attention due to them.

Leitfaden für Operationen am Gehörorgan. (*Guide to Operations on the Organs of Hearing.*) By Professor Dr. F. TRAUTMANN, Geh. Med.-Rath, Generalarzt a. D., dirig. Arzt der Abtheilung für Ohrenkranke in der Königl. Charité. Berlin: Verlag von August Hirschwald. 1901. Pp. 120. Price 4 marks.

THIS book forms the fourth volume of the "Bibliothek von Coler." An account is given of the most important operations on the outer ear, including the removal of tumours, benign and malignant. Directions are also given as to the various operations which may have to be performed on the inner ear, such as paracentesis of the membrana tympani, tenotomy of the smaller muscles, removal of the ossicles, &c. The directions are given in simple language and should be not difficult to follow. The value of the little work is considerably increased by the 27 illustrations which appear in the text.

LIBRARY TABLE.

Practical Points in Nursing for Nurses in Private Practice. By EMILY A. M. STONEY. Second edition. London and Philadelphia: W. B. Saunders and Co. 1900. Pp. 456. Price 7s. 6d. net.—We find some difficulty in reviewing this book, for it is evidently written with every desire that it should be of use to those for whom it is composed, and yet it bears evidence in many places of haste and carelessness. Let us first give such praise as is due. The purely nursing portions of the book are good, and the instructions given in Chapters I., II., and III. are very practical; so is Chapter V. on Nursing in Special Medical Diseases, more especially the section on caring for the dead, which is admirable. But when Miss Stoney strays into the paths of medicine or pathology or the kindred sciences she goes somewhat astray. Thus under the head of "Irritant Poisons" we find ammonium given, and as antidotes for it vinegar, lemon juice, and the like. In the next line we find ammonia given separately together with the other caustic alkalies. On p. 263, under the head of "Dressing the Cord," we find that the cord should be "placed on the left side of the body, because if placed on the right side it would press upon the liver, which at birth is larger than the other organs and which reaches down to the navel." It is absurd to suppose that two inches of cord would press upon the liver to any harmful extent, and the liver, whether in the infant or in the adult, is always larger "than the other organs," although in the infant it is larger in proportion than in the adult. Miss Stoney's style lacks clearness. Take the following (p. 165) *Apropos* of hysterectomy she says: "Insanity is *not* a complication of this operation, the recovery from which is usually rapid, but when insanity does set in this is commonly the cause, and the patient generally recovers." On reading this sentence we could not at first understand to what "this" in the clause "this is commonly the cause" referred, but on looking at the commencement of the paragraph before the one which we have quoted we found that Miss Stoney was referring to loss of blood and shock. Miss Stoney in her preface thanks a certain medical man for his "technical revision and for other kind assistance." We would suggest that before the third edition appears he, or someone else, should revise the text again.

Lehrbuch der Wochenbettpflegerinnen. (*Manual for Monthly Nurses.*) By Dr. PAUL RISSMANN. With Nine Illustrations. Berlin: Karger. 1901. Pp 66. Price 1 mark 60 pfennig.—This little book is intended as a manual of instruction for monthly nurses. It contains a considerable amount of information put in a concise and clear manner. The author has taken care not only to give the most important facts about pregnancy, labour, and childbed, but has also added short paragraphs upon elementary subjects, such as weights and measures, percentages, and the method of using and reading a thermometer. The various complications that may arise either during labour or childbed are mentioned, as well as the more important disorders of the newly-born infant. As the various subjects are arranged in numbered paragraphs and a fairly full index is added reference to any particular point is easy. The information given is well within the grasp of a fairly intelligent woman and cannot fail to be of service to such German women as are engaged in this branch of nursing. The book is interleaved so that notes can be made.

How to Nurse the Sick. (The Home Series.) Edited by FLORENCE WHITE. Pp 84. With numerous Illustrations. London: *Black and White* Office. Price 2d.—This is a very useful little book of instruction intended for that large class of persons who in times of sickness are most likely to have neither a trained nurse at home nor hospital treatment. By carefully following the precepts here laid down any woman of average intelligence should be able to render herself of far more assistance to the medical man than she would be if entirely uninstructed. The general indications for hygiene, cleanliness, and preventing the spread of disease are stated with most commendable simplicity and clearness. A useful form of chart for the home nurse to fill in daily is contained in the book and at the end is some judicious advice for the treatment of such slight ailments as do not necessitate the aid of a medical practitioner. Care has been taken, however, nowhere to encroach beyond the nurse's province and readers of the book are more likely than are the ignorant to seek medical aid at the proper time. A copy of this little work placed in the hands of the wife or sister who is acting as nurse would often save a medical man time and trouble where there is no trained attendant.

The Coming Waterloo. By Captain CAIRNES. London: Archibald Constable and Co. 1901. Pp. 364.—In this volume is given an account of an imaginary war between England and France. At the commencement of the narrative it is supposed that a naval war has been in progress for some time, but has come to such a pass that it appears to be impossible to exhaust either of the combatants sufficiently to compel him to sue for peace. At last comes a change: Russia draws the sword on behalf of France, and Germany and Austria become allies of Great Britain. The story relates the experiences of a certain Lieutenant Walter Desmond of the Royal Ulster Fusiliers. The English army is landed in France and the supposed engagements which follow are graphically described. In the end the French are driven back and, history repeating itself, the Germans arrive in time to complete the rout. The book is written in an interesting manner, but not being military authorities we cannot comment on the tactical and other special knowledge exhibited. A thrilling account is given of an engagement fought under the rays of powerful electric lights, but the chief point insisted on is the value of training the men to shoot accurately and with judgment. It is shown how with such qualities "the highly-trained few will annihilate the half-trained multitude in the fighting of the future."

The Psychology of Reasoning based on Experimental Researches in Hypnotism. By ALFRED BINET, Doctor of Science, Laureate of the Institute (Académie des Sciences and Académie des Sciences Normales), Director of the Laboratory of Physiological Psychology in the Sorbonne (Hautes Études). Translated from the Second French Edition by ADAM GOWAN WHYTE, B.Sc. Chicago: The Open Court Publishing Company. London: Kegan Paul, Trench, Trübner, and Co. 1901. Pp. 192. Paper covers. Price 1*s.* 6*d.*—This book is, we notice, the forty-seventh of a series published under the general title of "The Religion of Science Library" and is "entered at the Chicago Post Office as second-class mail matter." We do not profess to be able to explain the exact significance of the expression "second-class mail matter," as understood at the Chicago Post Office, but possibly the information may be of use to some of our readers. It is not quite clear for whom the translation of M. Binet's book was made. To anyone generally familiar with the writings of Carpenter, Herbert Spencer, Maudsley, and Hack Tuke, and who has a practical knowledge of the proceedings of the Society of Psychical Research, the book may be recommended as a good one to while away the time spent in a long railway journey. To those who wish to obtain information on the psychology of reasoning we should recommend a previous study of the works of the authors whom we have mentioned. M. Binet, like so many of the modern French school of psychologists, attaches to researches in hypnotism an importance to which they are not entitled. He is presumably a serious person, yet we notice amongst other works on psychology issued by the publishers of this book one entitled "The Psychic Life of Micro-organisms," written by the same author.

Practical Licensing Reform. By the Hon. SIDNEY PEEL, Barrister-at-Law, late Fellow of Trinity College, Oxford, Secretary to the Royal Commission on Liquor Licensing Laws. London: Methuen and Co. 1901. Pp. 144. Price 1*s.* 6*d.*—This is an extremely good little book, on a most important subject, written by a clear-headed, well-trained, earnest man who has had a unique opportunity of obtaining accurate information. It is, perhaps, hardly necessary for us to say that Mr. Peel is a son of the late Speaker of the House of Commons, and that as secretary to the late Royal Commission on the Licensing Laws he necessarily had brought to his notice all the evidence given before that Commission. It may, however, be well to point out that the secretary of a Royal Commission during the whole course of the sittings is daily and hourly brought into personal contact with the witnesses who are examined, and by this means he obtains a clear insight into the whole trend of the question under review, of the personal idiosyncrasies of the individual witnesses and of the peculiarities of the interests which they represent. For these reasons we heartily commend this book to all those who are interested in the question of the licensing laws—that is to say, to all those who have at heart the well-being of the people of Great Britain and of Ireland. The book gives an account of the licensing laws as they exist at present and contains chapters on the excessive number of licensed houses and its effects and on the tied-house system. The causes of failure in the present licensing administration are dealt with under the headings: (1) Defects in the Law; (2) Defects in the Licensing Authority; and (3) Defects in the Results of Appeal to Quarter Sessions. The attitude and administration of the police and police authorities are dealt with in a separate chapter. The effects of Sunday closing and the questions connected with the *bonâ-fide* traveller and with clubs are dealt with in detail. There are a chapter on the popular control of the liquor traffic and an appendix containing a summary of the recommendations of the Royal Commission. Every subject is carefully, concisely, and conscientiously treated. We cannot deal in this place with the complicated questions raised. We do not profess to be in exact accord with Mr. Peel on every point with regard to which he gives an opinion, but on all matters of fact the book may, we believe, be absolutely relied upon, and for this reason, as well as for others previously given, we trust that the book will have—as it certainly deserves to have—a wide circle of readers.

La Grossesse. By Dr. L. BOUCHACOURT. With a Preface by Professor BUDIN. Paris: Georges Carré et C. Naud. 1901. Pp. 516.—Though doubtless very carefully prepared and valuable in its way this work will probably not find many readers among the profession in England. The book contains physiological studies of the pregnant state in women and the lower animals; a review of both ancient and modern opinions bearing on the influence of every-day occurrences on that condition; and, lastly, remarks on the attitude of French public opinion towards unmarried pregnant women and comments on the institutions and associations existing for their benefit and assistance. In the earlier chapters, though mentioning sexual excitement, hot baths, horse-riding, bicycling, sea-voyaging, and railway travelling as possible and fairly frequent causes of abortion, the author makes no reference to the very numerous midwives in France who are really abortion-mongers and who ply their trade with little risk to themselves. Dr. Bouchacourt grieves greatly that so little is being done to combat the growing relative depopulation of France and urges that for the sake of the State every care ought to be taken of women who become pregnant. As things are, a poor woman who is *enceinte* probably finds her way to Paris or other large town and having been delivered there at the maternity charity elects to remain in the city rather than to face her people at home. At the present time idiots, cretins, deaf-mutes, degenerates, and epileptics are better looked after by the State than are the mothers of the future soldiers and citizens of France. The Academy of Medicine in 1891 recommended that an asylum for pregnant women should be built at the public cost in every department of France. In 1892 the Conseil Supérieur de l'Assistance Publique passed a resolution to the same effect. Up to the present time no steps have been taken in the matter by any of the public bodies, but an enterprising architect named M. Legriel has designed plans for maternity asylums and sanatoria which will be found at the end of the book. The descriptions of the plates are in the last few pages of the letterpress.

Annuaire des Eaux Minérales. By Dr. G. MORICE. Forty-third year. Paris: Librairie Maloine. 1901. Pp. 338. Price 1 fr. 50 c.—The editor of this handy little guide is the editor-in-chief of the *Gazette des Eaux*, and he thoroughly understands how much is wanted in a guide such as this one. There are the names of the members of the Public Health Committee, a long catalogue of spas and hydropathic establishments with their medical officers, an alphabetical list naming the physicians in France who engage in hydropathic work, a classification of the French mineral waters, and the French sanatoria for phthisis are also given. Under the name of each spa are given various particulars: the altitude in metres, brief descriptions of the chemical type of the mineral waters, the indications for their use, and details of travel to the place from Paris by rail. Most of the principal spas of foreign countries are also given, with a few particulars in each case. The British watering-places referred to are those of Bath, Buxton, Harrogate, Cheltenham, Leamington, Malvern, Matlock, Perth, and Tunbridge Wells. The guide should find a place on the study-table of every physician who prescribes hydro-therapeutic measures to his patients.

The Chronicle of a Cornish Garden. By HARRY ROBERTS. London: John Lane. Pp. 190. Price 5*s.*—Mr. Harry

Roberts, who is, though he does not say so on his title page, a medical man, has written a very charming book. He knows what a garden should be and has apparently made a pleasaunce out of most unpromising material; so his book is full of comfort for those who may hope to spend their later days in possession of a garden, however humble. Mr. Roberts gardens in the true spirit of a gardener, that spirit, we mean, which filled Campion and Marvell when they wrote about gardens and flowers—the spirit which makes a man look upon a garden as a retreat from care, as a companion, and as a source of pleasurable anticipation—an anticipation which is sometimes fulfilled despite the pessimism of that delightful little book "My Summer in a Garden." Given the opportunity, and there is no pleasure so cheap, so lasting, and so enjoyable as a garden We should add that Mr Roberts modestly refuses to illustrate his book with pictures of his own garden but instead supplies pictures of an ideal garden by F. L. B. Briggs.

On the Sterilisation of Milk: Its Advantages and Limitations. By A. D. BLACKADER, M.D., M.R C.S Eng. Pp. 12.—In this pamphlet, which is a reprint from the *New York Medical Journal* of Feb 2nd, 1901, Dr. Blackader, Professor of Pharmacology and Therapeutics in McGill University, Montreal, strongly advocates the pasteurisation of cow's milk for infant feeding at a temperature not exceeding 60° C. (140° F.). He quotes various observers to the effect that at this temperature in closed vessels (but not in open vessels) 99 per cent of all the bacteria present in milk are destroyed. At 70° C. (158° F.) milk acquires a more or less scalded taste and undoubtedly undergoes some chemical changes, probably the following: (1) its proteids are modified and rendered apparently less digestible; (2) the salts assume a condition in which they are less readily absorbed; and (3) natural ferments, the presence of which in milk may with much probability be inferred, are destroyed.

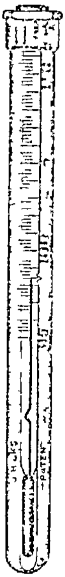
Cholecystitis complicating Typhoid Fever. By W. F. HAMILTON, M D. Pp 5—In this pamphlet, reprinted from the *Montreal Medical Journal* for December, 1900, Dr. W. F. Hamilton, Lecturer in Medicine, McGill University, describes four cases of cholecystitis complicating typhoid fever occurring during 1900 in the wards of the Royal Victoria Hospital, Montreal In three of them the first symptoms of cholecystitis showed themselves on the twenty-eighth, twenty-ninth, and thirtieth days of the disease, but in the fourth case on the seventy-second day. In two of them the abdomen was opened and the gall-bladder was found to contain calculi and to be necrosed in places; in the other two cases no operation was performed All the patients recovered.

Sidmouth as a Health Resort. By A MACINDOE, M D Glasg., D.P.H. Bristol: John Wright and Co 1900. Pp 68 Price 1s.—The reviewer who is experienced in the class of book a specimen of which is now before us, is struck by the fact that any given watering place or health resort is superior to any other, if not in every way at least in most. Dr. Macindoe has, however, with rare self restraint tried to show what Sidmouth is, and not to suggest what other places are not. Sidmouth is without doubt a very pleasant place and has the advantage of not being fashionable, in the sense that it is not haunted by the tripper It is warm and sunny, well-drained, and has a good water supply, and the reports of the county medical officer of health which are quoted by Dr. Macindoe show that the death-rate is low and that the sanitary policy of the authorities is very advanced. The sewerage of the town was almost entirely renewed at an expenditure of about £10,000 in 1897. To those who wish to read a clear account of a clean little town situated in the midst of beautiful scenery, Dr. Macindoe's *brochure* may be recommended.

New Inventions.

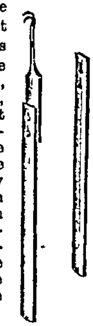
A HYGIENIC CLINICAL THERMOMETER.

THIS is a new departure in the form of clinical thermometer. The scale is not cut in the thermometer itself but in a glass case, which replaces the usual metal one. This renders the surface perfectly smooth so that it can be readily cleaned—undoubtedly a great gain. This advantage is somewhat detracted from by the trouble which is experienced by always having to replace the thermometer in the case before the temperature registered can be read off. The thermometer is made by Mr. Hicks of Hatton-garden, London, E C



A SIMPLE SELF-RETAINING UTERINE TENACULUM.

A UTERINE tenaculum is indispensable to the gynæcologist, but the holding of the same unfortunately monopolises the use of one hand completely Having (no doubt with many others) experienced this inconvenience I have devised a simple plan of getting over the difficulty, and Messrs Reynolds and Branson, Limited, of Leeds, have carried out the idea satisfactorily. The illustration represents the instrument, the greater part of the handle being made of flexible metal, which can be easily bent round either the pubes or sacrum after the necessary downward traction on the cervix has been made, assisting materially in the bimanual examination of the uterus and also the palpation of the posterior wall of the same through the rectum. The value of the tenaculum will be most appreciated in private practice where an assistant is not often to be had. If used through an ordinary cylindrical speculum it will not only hold the cervix but render the speculum self retaining in addition.



Cheltenham. ALEXANDER DUKE, F.R C P. Irel.

HEALTH OF CHARD.—Mr. G. Barnes, the medical officer of health of Chard, in his annual report for 1900 states that the population of the town is estimated at 4500, with an area of 403 acres. The birth-rate was 26 8 per 1000 and the death-rate was 17 7 per 1000. Among infants under one year there were 22 deaths, giving a death-rate of 178 8 per 1000 children born.

THE HOSPITAL SATURDAY FUND.—The report of the council of this fund for 1900 is a satisfactory one It shows that the total income was £20,280, being £267 in excess of the income for 1899 and £142 more than the amount collected in 1897, the last year when there was a street collection on behalf of the fund The total sum distributed was £17 698 This amount has only been exceeded twice in the history of the fund—viz, in 1893 and 1896, when [illegible]

and miscellaneous institutions received £6209. The total number of patients sent to convalescent homes was 1165; of this number 812 were sent with free letters and 353 paid £354 towards the cost of their maintenance. The number of surgical appliances supplied was 3115, the cost being £2558; of this sum the recipients paid £1377. The expenses of management amounted to £2277. This sum is at the rate of 11 23 per cent, the lowest rate recorded with the exception of that for the preceding year, when it was 10 95.

THE LANCET.

LONDON: SATURDAY, APRIL 27, 1901.

The International Organisation of Science.

IN the past history of the world, and not so very long past, it could hardly be said that science knew no nationality, for political conditions worked so strongly to the disadvantage even of minds bent on unravelling scientific truths that no interchange of knowledge was possible. But fortunately now for the interests of science all this is being changed. The tendency among the scientific to sink all differences of nationality, creed, or race, and to cultivate a spirit of cosmopolitanism is recognised as natural. A spirit of scientific commonage is growing up amongst us which should make finally for peace and concord. One undoubted means towards the advancement of international scientific coöperation would be the publication of an international catalogue of scientific literature under the control of the civilised world's learned societies, and this step has been proposed and, moreover, is likely to be realised. Scientific literature has already done much to make science international by encouraging investigators of different nationality to work in harmonious relation with each other. But much as it has done literature cannot do all. What is wanted is an organisation the aim of which shall be international coöperation in all practical affairs that pertain to the pursuit of the truth; that shall promote an exchange of ideas as to the lines on which research will yield the most satisfactory results; and that shall influence the methods of scientific training. Such a movement would render science and civilisation a service of which it would be impossible to exaggerate the importance. The need for international cooperation in the study of the foundations of knowledge has long been felt, and it is satisfactory that we seem to be within measurable distance of the formation of the nucleus of such an organisation. An International Association of Learned Societies has now made a fair and promising start, and that the movement will bear fruit of the most important and cosmopolitan kind there is little doubt. Such a body is calculated to draw to its conferences not only the leading thinkers of the scientific world but the minds of the diplomatic and economical worlds also.

Last week the first Congress of the International Association of Learned Societies met in Paris under the presidency of M. DARBOUX, the permanent secretary of the Paris Academy of Sciences, and there were present a group of famous men as representatives of science in Austria, Belgium, Denmark, England, France, Germany, Holland, Hungary, Italy, Russia, and Sweden—men who have revealed to the world some of the most marvellous secrets of nature. Thus there were in conference together in Paris such famous persons as M. BERTHELOT, M. MOISSAN, Sir MICHAEL FOSTER, Professor E. RAY LANKESTER, Sir ARCHIBALD GEIKIE, Sir NORMAN LOCKYER, Professor RÜCKER, Signor CANNIZZARO (the celebrated Italian chemist), Signor MOSSO, Dr. VAN'T HOFF (whose magnificent contributions to our knowledge of the nature of solution and the constitution of matter are so widely known), and Professor A. FISCHER (of Leipsic, the well-known botanist). The chief object of this conference of *savants* was, in the words of M. DARBOUX, that the man of science devoting his life to the most delicate or the most abstract researches may cease to feel himself isolated while still preserving that independence which is the greatest good and the primary need for the honest investigator. M. DARBOUX eloquently pointed out the splendour of the work that an international organisation of science could do by uniting in the different academies all those who are studying the same subject; by giving them, if they wish it, the opportunity of joining in a common work; by drawing the attention of different Governments to all the schemes the speedy realisation of which is necessary or desirable; and by indicating to Governments the means of executing these schemes in the most favourable conditions and with the greatest possible saving. If the great thinkers of the world can through the association get into touch with the people the association is destined to become rapidly one of the most powerful instruments of concord and of progress.

It is in the irony of things that the International Peace Conference at The Hague was shortly followed by one of the biggest wars into which this country has been plunged. And it may be that the international organisation of science will at first bring about a result diametrically opposite to that which had been hoped. Science tends to increase the ingenuity of fraudulent practices while it provides machinery for the maintenance of a higher standard of probity. It opens up greater possibilities of peace, yet at the same time it provides powers for the wholesale destruction of human life. Nitrogen is the most important constituent of our food and at the same time it is the essential element in the high explosive. Mr. NOBEL was probably the most prominent manufacturer and inventor of explosives that the world has seen and he acquired a massive fortune from his inventions. He left his great wealth to be distributed to those who could suggest the scheme that was best calculated to promote the peace of nations and the prevention of warfare, realising the strange paradox to which we have drawn attention. It is our conviction that science will ultimately triumph in bringing about the peace of the world, though there may be many centuries to wait for this consummation. And because this conviction is widespread among thoughtful people an annual international conference of scientific men has a deeper significance than at first sight would appear.

* * *

"Some Fallacies of Therapeutics."

UNDER the above title Dr. GEORGE L. PEABODY of New York has recently delivered an address to the Practitioners Society, which has been published in the *Medical Record* of New York and which we have read with much interest. Dr. PEABODY does not exaggerate when he says that in these days we are in danger of being swamped by the multiplicity of devices to cure the ills of man. New remedies and new preparations of old remedies are devised in such profusion that the practitioner is tempted to make a constant succession of experiments on his patients and to take short cuts to cure diseases, in many of which there is an element of regularity and of time which cannot be ignored with impunity. Dr. PEABODY adduces several instances of what he considers the persistence of exploded ideas of the action of medicines. He even goes so far as to say that the latest editions of works on therapeutics are full of echoes of the past, repeating the errors and inconsistencies of the old editions and the older writers from a spirit of conservatism or inertia, as if we had no more accurate means of investigation to-day than our forefathers had generations ago. Certain illustrations which he gives of this tendency are worth quoting, but a cursory glance at some of the works of our later therapeutists which happen to be before us scarcely satisfies us that Dr. PEABODY is justified in his general censure.

Dr PEABODY alludes to the use of bitters as appetisers as an example of traditional error. "Perhaps no idea in therapeutics," he says, "is more widespread or more generally acted upon than that bitter substances conduce to an improvement in the appetite, and certainly none is less susceptible of explanation or proof." He denies that the effect is due to the contact of the bitter substance with the mucous membrane of the stomach, and attributes it rather to a stimulation of the sense of taste leading to flow of saliva, which is known to excite the secretion of gastric juice This view of the indirect action of bitters as appetisers through the increase of the salivary secretion is brought out in all the recent works to which we have referred. Dr PEABODY also points out that in the vast majority of cases in which bitters are taken to increase appetite they are mixed with alcohol in some form, as in "the cocktail," in the class of "tonics and bitters," and in other seductive drinks, almost always, he says, sold as being non-alcoholic, but which are found upon examination to contain a large amount of alcohol. The Board of Massachusetts a few years ago found that of 47 of these preparations examined 46 contained more than 21 per cent of alcohol. A preparation called "sulphur bitters" contained no sulphur and over 21 per cent. of alcohol, and one dealer's "sherry wine" bitters yielded 47 per cent of alcohol. No doubt the action of such quantities of alcohol by irritating the mucous membrane might temporarily increase the appetite and stimulate the flow of gastric juice, but no physician would approve such "medicines" or expect anything but permanent mischief from them. Loss of appetite is due to a great variety of causes and is to be met by an equal variety of remedies, amongst which the mere administration of bitters we should regard as the least important and the most doubtful. It is generally due to some defect of health or some neglect of hygiene or some error of habit which the true physician will take trouble to find out In detecting and explaining such a cause he will do his patient the greatest possible service. But certainly the mere administration of a bitter to a patient suffering from loss of appetite will often be the worst possible treatment. Another illustration given by Dr. PEABODY of the survival of false notions among the laity, and even sometimes among their professional advisers, is with regard to the action of alcohol. He finds both among medical men and their patients a lack of due recognition of the injurious action of alcohol on "the heart, arteries, and tissues generally" of persons who have the reputation of never having been drunk in their lives

"Investigation of such cases has often shown that the patient has been a steady and persistent and even hard drinker who always drank more alcohol than he could possibly oxidise, whose heart, arteries, stomach, liver, kidneys, and brain all showed evidence of degenerative changes directly due to alcohol, the victim himself and his friends honestly believing that the limits of temperance had never been overstepped because he never got drunk. It is not surprising that this should be the lay measure of the possible evils of alcohol, but that doctors should share such a belief and sanction indulgence in spirits accordingly, is truly deplorable."

Dr. PEABODY, in further illustration of what he considers to be the survival of errors in therapeutics, refers to the question of the efficacy of creasote and boric acid as germicides, of calomel as a stimulant of the liver, of lithium as a solvent of uric acid, of iodide of potassium as an effective eliminant in lead poisoning, and of the too indiscriminate use of the inhalation of oxygen. While admitting that he sounds a needed caution to medical men, and even to writers on materia medica, not to be too much bound to old beliefs, we think that he scarcely allows sufficient credit to observers for discrimination and advance in therapeutic reasoning. The fact is that we have not yet sufficient material for a system of therapeutics based on strictly scientific principles The medical practitioner, while deeply sensible of his obligations to those who in a spirit of research study the action of drugs and of their active principles, has to act in the emergencies of disease according to his own lights He cannot and does not expect to find in any manual of therapeutics a compendium of medical dicta by following which his personal responsibility for the treatment of his patient would be lessened. But he is most anxious for therapeutical suggestions, based. not upon tradition, but upon the collated results of medical practice This is what Dr. PEABODY thinks he is not properly supplied with.

* * *

The South African Honours Gazette.

THE long-expected *Gazette* of honours and promotions for services in the South African war has made its appearance. It is probably the longest *Gazette* ever published, but it nevertheless only extends to the time when Lord ROBERTS handed over his command to Lord KITCHENER, to whose lot it has fallen, at an extremely difficult and arduous phase of the campaign, to conduct affairs to a successful issue. Lord KITCHENER will then have his own recommendations to make regarding the honours and distinctions which have still to be given, so that an obvious opportunity will soon occur for the rectifying of omissions. Appointments to the Order of the Bath, the Order of Saint Michael and Saint George, and the Distinguished Service Order fill sixteen and a half columns of the *Gazette*, and the promotions fill seven and a half, while there is an appendix of five more. It can be claimed as a whole for the latest award of honours and distinctions that these have been freely bestowed. So large an army has been engaged for so long a time over so huge an area that it is impossible that all exceptionally good work wherever done can have received recognition. Legitimate disappointment will undoubtedly be felt in some quarters, but with one notable exception the *Gazette* is a generous one. The exception leaps to the eyes. The name of the head of the Army Medical Service is conspicuous by its absence. As if to accentuate the fact we find that Sir HENRY BRACKENBURY and Sir C. MANSFIELD CLARKE, the Director-General of Ordnance and the Quartermaster-General respectively, receive the Grand Cross of the Bath. We are at a loss to conceive how the omission is to be explained. The Director-General made every provision in his power for the hospital service in South Africa. It was no possible fault of his that the war attained the magnitude that it did and assumed a character which neither the military authorities nor the nation, indeed, foresaw it would assume. He did not fail to point out beforehand any shortcomings that existed, and the Royal Commissioners in their report expressly acquit him and the staff of officers associated with him of all blame in the matter. We are consequently, as we have already said, entirely at a loss to understand the omission of his name from the *Gazette* and fail to see any justification for it. Even apart from all other and higher considerations the unwisdom of such partiality at the present time must be obvious, and it is, in our opinion, greatly to be deplored in the interests of the army and of the State. It can hardly be expected that the Royal Army Medical Corps will be other than an unpopular service when its officers and the medical profession see the representative head of it studiously ignored in so marked a way. Speaking generally, the Army Medical Service and its officers in the field, and those who have been connected or who have done duty with it in South Africa, have, we are glad to notice, had their services recognised. It is needless to repeat here all the names, which will be found in another column, but we may select for special notice those of Captain NICKERSON, R.A.M.C., and Captain INKSON, R.A.M.C., who, as previously chronicled in our columns, have received the Victoria Cross, making with Lieutenant-Colonel BABTIE, R.A.M.C., and Captain DOUGLAS, R.A.M.C., a total of four Victoria Crosses gained by their corps in the South African War. We are glad to observe also that Captain DUKA, of the Army Medical Corps, Queensland Defence Force, whose conduct at Elands river was lauded by all the defenders of that post, has been awarded a Distinguished Service Order.

We sincerely congratulate all the recipients upon their well-earned honours; but we cannot congratulate the authorities upon the *Gazette* as a whole because its fairness is so grievously marred by the omission of the name of the Director-General of the Army Medical Service.

THE GROCERS' RESEARCH SCHOLARSHIPS.—Applications for the Grocers' Livery Company's Medical Research Scholarships (value £250 each) should be made by letter to the Clerk of the Company, Grocers' Hall, Princes-street, E.C., during the present month.

Annotations.

"Ne quid nimis."

THE QUALITY OF TEA.

IT is being pretty freely stated that unwholesome tea is being imported into this country in large quantities and it is urged that steps should be taken to check the importation of inferior teas by closing the doors of the Custom House against their sale. The deterioration of the quality of tea is said to be owing to the introduction of machinery for tea-making, a process which produces a very inferior article compared with hand-made tea. Thus there is very little machine-made tea now which can be compared with the old finest quality China tea. The explanation of this lies, according to a tea-planter, in the inefficiency of machinery in its earlier stages of development to imitate the finesse of a skilful hand craftsman in carrying through a series of delicate operations. The difficulty arises, of course, from the fact that it is one thing to make a specimen article at a high price for the few and another to make it for the masses by the ton, and the grower is sure to be in favour of producing quantity rather than quality. It is said that millions of pounds of decomposing leaf are made into tea simply because many factories are insufficiently equipped. Tea undoubtedly requires delicate handling during the progressive stages of its manufacture. The methods of treatment, unless efficiently conducted, are necessarily hazardous to the quality of the final product. The leaf, of course, has to be plucked, then withered, rolled, and finally "fired" or dried. It is obvious that any one of these processes might involve injury to the quality of the tea, and the enormous scale on which tea is prepared for the market would have a tendency to introduce inefficient treatment at some stage or other. It is the same story as in so many things—the machine-made article can never compare with that made by hand. But any deliberate tampering with tea should be instantly stopped. It is said that modern processes frequently set up secondary fermentations, the true aroma of tea being thereby lost and replaced by the musty smell of mucic fermentation. We should have thought that these changes would have made the tea so nasty that no one would drink it. There can be no question, however, that we hear much more frequently than hitherto the expression, "I cannot drink tea," and whether or not this is connected with the enormously increased output of tea and the necessarily rapid means employed for its manufacture is an interesting and important question.

THE BUDGET.

IT is without doubt being brought forcibly home to the people of this country that war is an expensive method of settling disputes. Into the question of who is responsible, and therefore who should pay, for the present war, we shall not enter, but the fact is that money has to be found somehow, and those who have to find it naturally do not like the process. Income-tax presses heavily upon many of us; in fact, if we may believe the statements made by correspondents in the columns of the *Standard*, such a tyrannical tax has never existed since the day of ship money. On the other hand, a correspondent of the *Daily News* of April 24th sheds bitter tears over sugar. "Are Jingo and bully synonyms? The sugar tax does not affect the working man. ...... It means that the women will have to pay at least 1*s*. to 2*s*. more a week while the little ones will have to do without their sweeties, in many cases the only thing to brighten their little lives." This letter gives a wonderful picture of the working man's home. We believe that the new duty on sugar will add one halfpenny per pound to the retail price. According, therefore, to the *Daily News* correspondent the average working man and his family consume from 24 to 48 pounds of sugar, including treacle and jam, per week. No wonder that the out-patient departments of hospitals are crowded with dyspeptics. As to income-tax, it may be allowed for certain, we think, that incomes arising from inherited property should be taxed at a much higher rate than a man's earnings.

THE TRAFFIC IN OLD HORSES.

IN another column will be found a letter from Mr. John Colam, the secretary to the Royal Society for the Prevention of Cruelty to Animals, dealing with an annotation on the above subject in THE LANCET of April 13th, p. 1095. Mr. Colam's letter is somewhat elliptical, but we presume that he wishes to imply that the order of the Board of Agriculture which we quoted does not apply to horses while on the way to the boat, but only when they are at the wharf or on board. Otherwise why does not his society proceed under an order by which heavier penalties can be exacted than under the Cruelty to Animals Act? Is it because persons convicted of travelling lame or infirm horses through the streets, albeit such horses are on the way to a boat for shipment, cannot be punished under the order in question? It is always a perilous task to try to put a meaning to Acts of Parliament or to orders of Government departments. But to our minds the order of the Board of Agriculture concerning the exportation of horses certainly considers them while in the streets of the port of arrival. The order distinctly lays down the illegality of conveying in a vessel from any port in Great Britain "any horse which ...... cannot be so conveyed without cruelty during the intended passage *and on landing*" (the italics are ours). Surely these last three words must mean conveyance or passage from the ship to the slaughter-house or sausage factory. Surely, then, the order would also refer to the conveyance of horses from the market or other starting place to the ship at the port of departure.

EPILEPSY AND CRIME.

DR. JOHN BAKER, deputy superintendent of the Broadmoor Asylum for Criminal Lunatics, has published an interesting paper on Epilepsy and Crime in the April number of the *Journal of Mental Science*. Regarding epilepsy as a functional degenerative neurosis, characterised by motor, sensory, or psychical convulsions, the following types of epilepsy are recognised—viz., epilepsia major (*grand mal*) and epilepsia minor (*petit mal*), either of which may be associated with abnormal mental states occurring in close association with the fits or independently; and psychical epilepsy without motor convulsions. With regard to the co-existence of epilepsy with perfect sanity it is noted that whereas nearly half of all cases of epilepsy are sane, yet a tendency to mental enfeeblement is always threatened even in these cases. Epilepsy is common among the criminal classes. Thus Ottolenghi found that out of 265 criminals 80 were epileptic. Of these no less than 78 are described as cases of psychical epilepsy and they were variously denominated—vertiginous, unconscious, and automatic with or without violence. Dr. Baker thinks that pure psychical epilepsy, without any kind of motor convulsions, is so rare that its employment as a defence for crime must be regarded with great suspicion. Since the opening of Broadmoor Asylum in 1863 the number of patients admitted has been 2435—viz., 1860 males and 575 females. Of these 139 males and 26 females are described as epileptic. The crimes and offences committed were in order of frequency as follows: murder 68 instances, attempts to murder 41, larceny 28, arson seven, and burglary six. The remaining crimes included manslaughter, rape, forgery, and other offences. A marked disproportion exists between the epileptics of both sexes as regards the tendency to crime. The proportion of male epileptics who commit crime is much above the proportion of females. This may be due partly to the fact that the psychical activity of man is greater than that of woman, or, as Lombroso avers, to the tendency which the disease, when existent in women, has to assume the form of wantonness, which, however reprehensible in itself, is less dangerous and does not lead to sensational crimes requiring imprisonment. Moreover, as Tonnini remarks, epilepsy in women has a greater liability to cause imbecility and mental enfeeblement rather than the more active and dangerous form of insanity. Thus out of the small number of female epileptics present in Broadmoor Asylum in 1890 more than half display this tendency to mental enfeeblement without violence, not because of age and infirmity, but simply as a characteristic of the disease. The remainder retain their impulsive and dangerous propensities. Homicide is mostly committed during post epileptic automatism or post-epileptic furor, and there may be total or partial amnesia as regards the deed when normal consciousness is regained.

GARBAGE-MONGERS.

WALTER POWELL of Taff's Well, Caerphilly, is a butcher, and according to his own account is a young man in business, newly married, and has his character to make. Unfortunately, Mr. Powell's methods of character-making have brought him into contact with the law, for recently he was summoned at the Llandaff Police-court for exposing for sale meat unfit for human food; and also for selling horseflesh without giving proper notice to the public. A quantity of meat, both beef and horseflesh, the whole weighing 187 lb., was seized in the defendant's shop, and upon being condemned by a magistrate was destroyed. It was all unfit for food. Defendant's brother was seen to fetch the horseflesh from the knacker's and bring it to the shop, where the defendant took it and carried it into the shop. It must be said in defendant's favour that when the police and the medical officer arrived that he made no attempt to hinder them from inspecting his meat. The magistrates, we are glad to see, did not inflict a fine but sent defendant to prison for three months. For this period of time he will, at any rate, be fed with wholesome food despite his anxiety to poison his fellow creatures We do not know what the occupation of Mr. Brinley Powell, the brother, may be, but he certainly aided and abetted his brother in his iniquitous action, and we trust that the authorities will keep an eye upon him. We may add that defendant confessed that he gave 2*d*. per pound for the horseflesh and sold it for 5*d*. per pound, thus making a handsome profit.

THE DEPOSIT OF THE THERMAL SPRINGS AT BATH.

THE chemistry of the thermal springs of Bath was discussed at some length in the report of THE LANCET Analytical Commission of Oct 14th, 1899, p. 1068. In this report a series of analyses of the three historic springs was given and our Commissioners obtained some fresh results, showing amongst other things the presence of two constituents not hitherto recorded. We have since received specimens of a deposit found in the main pipe of the spring known as "the Hot Spring." As this pipe has not been opened for about 20 years the examination of this deposit should be of interest. The deposit presents the appearance of the ordinary incrustation obtained in boilers. Here and there the deposit was streaked with green which proved to be due to copper, an observation which would tend to confirm an analysis made by Sir Henry Roscoe of the Bath waters when he reported a trace of copper. The complete analysis of the deposit was as follows :—

Moisture	5·84	per cent.
Organic matter	1·30	,,
Silica	1·48	,,
Iron (oxide)	1·20	,,
Calcium sulphate	6·49	,,
Calcium carbonate	83·04	,,
Magnesium carbonate	0·65	,,
	100·00	,,

It will be seen that broadly the deposit consists chiefly of chalk with a little sulphate of lime. Spectroscopic analysis did not disclose any rare constituents, but of course any rare constituents in the water would most probably be soluble. As a matter of fact, in previous analyses of the water we found distinct evidences of the presence of lithia, strontia, and bromine.

A NEW CANCER HOSPITAL IN MOSCOW.

AN institution for the exclusive treatment of patients suffering from the various forms of cancer (either curable or incurable) is being built at Moscow at the expense, which is said to be an enormous one, of the municipality of that city. It is understood, however, that the main object which prompted the decision of the municipal authorities of Moscow of erecting a special hospital for cancer is to provide the necessary means for studying the nature of the disease from every possible point of view, and thus to encourage and to enable more thorough pathological and clinical research to be carried out in connexion with that malady. It is hoped that by carefully conducted scientific investigations the light of knowledge will be thrown upon a scourge which has of late years, and particularly in the northern regions of the Russian Empire, assumed a most formidable extent and character. The new institute, it is stated, will be under the entire management of a committee consisting of several members of the medical faculty with Dr. Lewschin, professor of surgery in the University of Moscow, as its Director; moreover, it is announced that special facilities will be offered to such students, desirous of joining the scientific circle of investigators there, who have already proved themselves good workers in that department of pathological research. In addition a special journal will be published by a committee selected for that purpose; it will bear the name of the said institute and will be entirely devoted to its scientific and social interests.

PROFUSE HÆMATEMESIS AND SYMPTOMS OF GASTRIC PERFORATION WITHOUT DISCOVERABLE LESION AT THE NECROPSY.

MR. MAYO ROBSON has recently called attention to the curious fact that after hæmatemesis, so severe as to be fatal, careful post-mortem examination may fail to reveal any lesion to account for the hæmorrhage.[1] The following case recorded in the *Intercolonial Medical Journal of Australasia* by Dr. H. G. Chapman is an example. A domestic servant, aged 27 years, was admitted to hospital on Nov. 24th, 1900, complaining of great weakness and vomiting. Two days before admission she had vomited a basinful of blood. She had been under treatment for gastric ulcer for 17 weeks. She was extremely anæmic and weak. She had taken nothing by the mouth except ice for two days. The pulse was 120. The abdomen was tender in the upper part and there were some rigidity and retraction. She was fed for two days on nutrient enemata. An attempt to give milk and soda-water produced vomiting and was abandoned. About one o'clock on Dec. 6th she was suddenly seized with pain which was followed by vomiting. At 3 P.M. there were slight distension and marked rigidity of the abdomen. Liver dulness was completely lost. The patient was collapsed and perspiring freely. Perforation was diagnosed and laparotomy was performed at 5 P.M. The stomach was brought entirely outside the abdomen but no abnormality could be found. A search for perforation of other viscera revealed nothing. The wound was closed and a large brandy and saline enema was given. The patient did not rally but vomited "coffee-ground" material for some hours. She was given strychnine and digitalin hypodermically and saline and brandy enemata every four hours. On the evening of the next day 1500 cubic centimetres of saline solution were infused into the median basilic vein. She never rallied and died early on Dec. 9th. Though the alimentary canal was carefully examined from the œsophagus to the sigmoid flexure no ulcer or abrasion could be found. In the stomach were dark brown fluid and a few clots. There was no sign of peritonitis. Slight degenerative changes in the shape of yellow patches in the aorta and on the aortic valves were found. It was thought that specific arteritis was present and that a small vessel had ruptured into the stomach causing the hæmorrhage. But the cause of the final attack which simulated gastric perforation remains quite unexplained.

ARSENIC IN STOCKINGS.

WE print an interesting communication this week in which it is shown that arsenic sometimes occurs in dyed stockings. Indeed, dermatitis has been traced to the wearing of stockings containing arsenic. The arsenic appeared to be present partly in a soluble and partly in an insoluble form. In an article in THE LANCET of Oct. 28th, 1899, p. 1186, we ourselves directed attention to the curious list of mineral substances that were found in dress materials. We failed, however, to find arsenic in any one specimen of the material submitted to examination, although we found present salts of zinc, aluminium, chromium, tin, magnesium, and iron. In one case, that of pink flannel, the material was loaded with Epsom salts. The materials examined were all more or less brilliantly coloured with aniline dyes. In recording the results of this inquiry we remarked that from time to time dermatitis had been referred to the use of highly dyed fabrics, and although dyes may not be injurious *per se*, yet certain poisonous agents, such as mordants, may be used in their preparation. Thus arsenic is largely used in colour making and dyeing and the poisonous metal has been found in small quantity in coloured dress fabrics. As we have said, we failed to detect arsenic in the materials, but in spite of the fact that all the aniline colours coming from Germany have been free from arsenic since the passing of a law in 1887 there would appear to be now, in the light of this recent inquiry, a recrudescence of the employment of arsenic in the dyes used, at any rate in stockings. This fact only shows what a sharp watch must be perpetually kept up in order to check an objectionable practice. There can be little doubt that in the cases cited the arsenic in the stockings was introduced through the dye. It appears to us that it should be the rule of the dyer to obtain a guarantee from the maker of the dye that it is free from arsenic altogether or at any rate as free as it is possible to be made by the best known process of elimination. It would seem that the employment of arsenic and its compounds, or of substances contaminated with arsenic, will inevitably have to be placed under special regulations, for apparently the presence of arsenic is unavoidable in a very great number of materials. The Royal

---

[1] THE LANCET, Feb. 9th, 1901, p. 376.

Commission on arsenic should include in their inquiry the question of the danger arising not only from arsenical food products but from arsenical clothing also, and should decide upon the limitations of the amounts of arsenic in any case.

THE ASSAULT ON A COMMISSIONER IN LUNACY.

ON Tuesday, April 16th, two of the Commissioners in Lunacy, Mr. G. H. Urmson (legal) and Dr. Sidney Coupland (medical), were paying the annual visit of inspection to the London County Asylum, the Heath, Bexley, when in Male Ward J. 2 a patient made a homicidal attempt on Mr. Urmson. Mr. Urmson, after visiting the patients and conversing with them, had re-entered the ward to ascertain if the numbers were correct when he received a violent blow upon the lower jaw, the weapon being the broken blade of a rusty table knife about two inches in length. Mr. Urmson had fortunately half turned round so that the blow did not fall on the neck as the patient had intended but upon the jaw. The wound, which was about one and a half inches long, bled freely, and was immediately treated by Dr. C H. Bond, the senior assistant medical officer, who was acting as deputy for the medical superintendent, Dr. T. E K Stansfield. The wound has rapidly healed without any complications. As regards the motive of the attack, it appears that the assailant had taken a dislike to one of the members of the Visiting Committee and had secreted the implement until occasion should serve for him to use it against that gentleman. But learning that the Commissioners were in the building he thought it an opportunity to use his weapon. He seems to have mistaken Mr. Urmson for one of the Prison Commissioners who had visited him when he was confined in Parkhurst Prison previously to his admission into the asylum, and when Mr. Urmson's attention was drawn away dealt him a blow which, but for a happy sudden movement on the latter's part, might have had fatal results. It should be added that all the patients are regularly searched, but in this instance the man had placed the weapon in hiding and had only withdrawn it shortly before he used it The assault on Mr. Urmson has many features in common with the fatal assault on Mr. Lutwidge, a legal Commissioner in Lunacy, which took place at Fisherton House Asylum nearly 30 years ago. Mr. Lutwidge was suddenly attacked by a criminal lunatic while making a visit of inspection at Fisherton House, the weapon, a nail which had been secreted by the murderer some time beforehand, being driven with one furious blow through the squamous portion of the temporal bone into the right hemisphere. Mr. Urmson seems to have narrowly escaped a similar dreadful fate, only the circumstance that he turned his head just as the blow was being struck saving the great vessels of the neck from injury that probably would have been fatal. We are glad to learn that Mr. Urmson has progressed so favourably and we congratulate him heartily on his providential escape.

ON CERTAIN NERVOUS CONDITIONS ASSOCIATED WITH ENTEROPTOSIS.

DR. JAMES ARNEILL in a paper published in the April number of the *American Journal of the Medical Sciences* refers to the frequency and importance of a group of nervous symptoms associated with enteroptosis and usually met with in anæmic and neurasthenic individuals of both sexes. The age of the patient was generally above 20 years, but after the climacteric period in women or the age of 60 years in men these cases were rare Gastroptosis usually coexisted with enteroptosis, and both were due to a relaxation and atony of the peritoneal attachments of the stomach, small intestines, and colon arising from feeble innervation. The mental symptoms consisted of depression and tendencies to melancholia, nervous irritability, and a proneness to hysterical manifestations. From a detailed study of 80 cases Dr. Arneill concluded with Meinert that in a large proportion chlorosis was also present, though he could not accept the latter condition as the cause An undue laxity of the tenth rib—the "costal stigma" of Stiller—characterised nearly all cases, and in many cases "nervous dyspepsia" was present. Many patients had a tendency to hypochondriasis and went from one physician to another. They suffered from general muscular atony even when appearing plump and well-nourished, were lacking in energy, and were easily tired. On examination of the abdomen while in the standing posture there was a sinking in of the epigastrium, while the abdomen was unduly prominent and big below the navel. Palpitation was common and in some a pulsating and tender aorta was observed. Inflation of the stomach with carbon dioxide gas—by administering tartaric acid and bicarbonate of soda—showed that the organ was displaced downwards Dr. Arneill states that in congenital cases of enteroptosis hyperacidity of the stomach was the rule. Blood examination of 23 cases showed that one was normal, nine were chlorotic, and 13 were anæmic but not chlorotic. Many of the female patients suffered from "floating" kidney or displacements of the uterus and in the former case operations had not infrequently been performed but benefit seldom resulted. Treatment consisted in massage of the abdominal muscles, properly devised mechanical support of the abdomen, lavage of the stomach and administration of hydrochloric acid in cases of subacidity, and the administration of tincture of nux vomica. Aggravated cases required prolonged rest and special treatment suitable to the degree of neurasthenia present Special conditions, such as intestinal obstruction and pelvic troubles in women, called for special treatment.

THE COUNTESS OF DUFFERIN'S FUND.

THE National Association for Supplying Female Medical Aid to the Women of India has been the means of relieving much suffering among the vast populations of our Indian possessions, and we are happy to see that its philanthropic work is being more and more appreciated by those whom it seeks to benefit. Its sixteenth annual report, dealing with the events of the year 1900, is issued by the Office of the Superintendent of Government Printing in Calcutta and forms with its 12 appendices a volume of 190 closely printed pages. The statistical part shows that during the year 1900 in India 1,667,329 women received medical treatment in 247 hospitals officered by women, the distribution of cases being as follows:—A. Patients treated in hospitals wholly maintained by the Association: in-patients, 7184; out-patients at the hospitals, 211,904, treated at home, 1635 B. Patients treated in hospitals aided by the Association: in-patients, 9450; out-patients at the hospitals, 258,300; treated at home, 2712. C. Patients treated in hospitals maintained from other sources—i e, independently of the two sources indicated under A and B: in patients, 26,028; out-patients at the hospitals, 1,136 804; treated at home, 13,312. The staff employed in the various hospitals for women throughout India includes 37 medical women of the first grade—i.e., persons qualified for registration in the United Kingdom. The names and qualifications of these ladies, together with the names of the hospitals where they are stationed are given in full, and the report is embellished with portraits of six of them. In addition to them there are also 80 assistant surgeons or practitioners of the second grade who have been trained in India and hold Indian qualifications, and 289 female hospital assistants and diplomates in midwifery filling appointments. The appendices contain much information as to the medical education of women in the United Kingdom and in India, together with particulars of the medals, scholarships, and prizes for which students are eligible. For the large number of Indian women who are debarred by religious and social prejudices from consulting male practitioners the action of the Association is of inestimable benefit.

THE SALARY OF THE MEDICAL OFFICER TO THE DAVENTRY WORKHOUSE.

MR. C. E. OLDACRES, the medical officer of the Daventry Workhouse, has been refused an increase of salary and has resigned his post under circumstances which should make other medical men pause before they apply for the vacancy. Mr. Oldacres has held office for 10 years at a salary of £30 per annum. On a previous occasion a rise in salary was refused to him because the work was said not to have become heavier since he accepted office. It is apparently not denied that the work is now harder, but the authorities will not give Mr. Oldacres the £50 per annum which is the least sum for which in justice to himself he can discharge the duties of the appointments.

VETERINARY WORK IN BENGAL.

IN the annual report of the Bengal Veterinary College and of the Civil Veterinary Department, Bengal, for the year 1899–1900, much information is given as to the prevalence of disease among domestic animals in and around Calcutta. Glanders appears to exist to an alarming extent; out of 188 draught ponies in the municipal Gowkhanas in Calcutta 102 were destroyed on this account. The stables in which the ponies were kept were described as being unsatisfactory, and Veterinary-Major F. Raymond, F.R.C.V.S., of the Civil Veterinary Department, had recommended that all the ponies should be tested with mallein, those that failed to pass the test being destroyed. Rinderpest also was fatal in an unusual degree. In one district alone it was reported to have carried off 27,000 head of cattle. The report gives details of the inoculation of cattle with bile on the Aligarh dairy farm, where rinderpest broke out on April 16th, 1899. Inoculation began on May 13th and the outbreak ceased on June 7th. The herd consisted of about 388 animals. 65 animals died before the inoculations, 15 died while the inoculations were progressing, six developed the disease a few days after they had been inoculated, and three contracted the disease about 10 months after the inoculation, during another outbreak. Altogether 291 animals, mostly cows, were inoculated; of these 70 buffaloes and 26 Zebu cows were in calf; but none of them aborted as a result of the treatment. Six developed rinderpest after inoculation (three died and three recovered). Five were possibly infected at the time of inoculation, but this did not apply to the sixth which was attacked 22 days after inoculation. The manager of the farm thought that the outbreak had been stopped by the bile treatment. Three of the cattle inoculated in May, 1899, died from rinderpest in March, 1900, from which it may be inferred that the buffalo bile treatment had been protective for 10 months.

A NEW PUBLIC HEALTH BILL.

A BILL dealing with the status of officers of health has been brought in by Sir Francis Powell and others and was ordered by the House of Commons to be printed on April 2nd. The text of the Bill is now before us and a memorandum appended to it states that the main objects of the Bill are to ensure that none but those properly qualified shall be appointed as officers of health and to give them the same amount of security in their tenure of office as prevails in Scotland, and as Poor-law medical officers possess in England and medical officers of health have in the metropolis. The Bill also deals with the question of superannuation allowances and proposes that the term "sanitary inspector" shall be universally used in place of "inspector of nuisances." The memorandum also points out that under existing laws urban and rural sanitary authorities may appoint officers of health on such conditions as to qualifications and tenure of office as they think fit. But highly technical duties are required of sanitary inspectors and one object of the Bill is to secure that they should be duly qualified. The term "officer of health," as used in the Bill, includes a medical officer of health, an inspector of nuisances, a sanitary inspector under the Public Health Acts of 1875 and 1891, or either of them, and a district or assistant sanitary inspector. The Bill shall come into operation from, and immediately after, Sept. 29th, 1901. The qualifications of an officer of health under the Bill are to be a certificate of the Local Government Board, or from some body approved by that Board, that he has shown himself by examination competent for office or that he has for three consecutive years before the commencement of the Act served as an officer of health. An officer of health may be suspended by a local authority at their discretion, and an officer of health may resign on giving one month's notice in writing. The whole Bill consists of 32 clauses. It is backed by, amongst others, Sir Walter Foster, Dr. Farquharson, and Sir Michael Foster.

EPISTAXIS IN PEOPLE BEYOND MIDDLE AGE.

A PAPER which we published in THE LANCET of April 20th, p. 1133, by Dr. George Coates, entitled "On the Causation and Treatment of Profuse Epistaxis in People beyond Middle Age," presents many points of interest. The effects of continued high arterial tension are frequently overlooked, or the resulting symptoms are attributed to other causes. One of the consequences of high tension is hæmorrhage, frequently from the lungs, but always from the relatively weakest point, and, as Dr. Coates expresses it, "it is probable that the venous sinuses in the noses of these sufferers from epistaxis have very thin walls." Dr. Coates considers that the sequence of events which lead up to the epistaxis is as follows: (*a*) long-continued high arterial pressure; (*b*) some sudden cardiac failure; (*c*) overfilling of the whole venous system, the weakened heart not being able sufficiently to empty the engorged veins against the high pressure in the arterial system due to contracted arterioles; and (*d*) leakage from an overfilled vein. Dr. Coates deduces these causes from five cases, giving a very brief account of each. We wish that he had given some more details, especially in regard to previous history. He mentions, however, that he had known and watched all the patients for several years both before and after the attack; therefore his remarks on the condition of the heart are of considerable value. Three out of the five cases "developed" valvular mischief coincidently with the attack of epistaxis. It is a well-recognised fact that prolonged exercise tends to lower arterial pressure, but during the first stages of muscular exertion the range of blood-pressure is high, especially in those persons unaccustomed to severe exercise. But in the cases mentioned by Dr. Coates there is no information as to whether there was a history of any physical strain immediately preceding the epistaxis and valvular failure. In heart-strain the valve that most usually suffers is the aortic and it is singular that in two out of the three cases in which there was valvular mischief, the mitral valve should have given way. The treatment adopted by Dr. Coates was perfectly rational. As a rule, in cases of epistaxis plugging the nares is at once resorted to, without sufficient attention being directed to the conditions causing the hæmorrhage. By giving nitro-glycerine the general blood-pressure was lowered, consequently the over-distended venous system was relieved and the epistaxis ceased, and Dr. Coates rightly remarks that "the immediate treatment must be directed to the capillaries and small arteries, as the real cause of the epistaxis lies there, not in the nose" Measures may subsequently be taken to improve the condition of the heart.

RETIREMENT OF DR. BROUARDEL.

PROFESSOR BROUARDEL, the Dean of the Paris Faculty of Medicine, has announced that at the end of his present term of office—namely, in February, 1902—he will not accept re-appointment This announcement has profoundly moved not only the medical profession but also the general public among whom Dr. Brouardel is well known and very popular. All sorts of reasons are given for his retirement, but his own reason for the step is simply that he is tired and considers that he has earned a right to rest

"THE ROYAL ORTHOPÆDIC HOSPITAL."

WITH reference to our editorial note to Mr. H. H. Marks's letter on the above subject published in our issue of last week, p. 1167, we think it right to inform our readers that we have received another letter from Mr Marks in which he supplies an answer to our question, but as he has requested, "in the interests of the hospital, that it should not be made public," we are of course precluded from expressing any opinion with regard to the information with which he has supplied us.

THE BIRMINGHAM CONSULTATIVE MEDICAL AND SURGICAL INSTITUTION.

IN our issue of March 16th, p. 805, we noted that those interested in the above institution had determined to secure a successor to Dr. H. Ward Irvine. We now see by an advertisement which the honorary secretary of the institution has sent us, and which we have not inserted, that the committee want two successors—a physician and a surgeon. A minimum salary is guaranteed and private practice is debarred. The Birmingham Consultative Institution is therefore now nothing more than a medical aid society. Its governing body consists of a committee of laymen who wish to keep two medical men to do medical work for them. We await the result of the advertisement in the lay press with interest.

EPIDERMOLYSIS BULLOSA HEREDITARIA.

IN the April number of the *Maryland Medical Journal* Dr. Henry L. Smith of Baltimore describes what he regards as the first recorded case of epidermolysis bullosa hereditaria occurring in the negro This disease has been observed many times in white races, the earliest reference given in Dr. Smith's list of authorities being to Dr. Tilbury Fox's "Notes on Unusual or Rare Forms of Skin Disease," published at intervals in the first volume of THE LANCET for 1879. Various names have been given to this condition; the one adopted here seems to have been first employed by Köbner, writing in the *Deutsche Medicinische Wochenschrift* in 1886 Dr. Smith's patient was a mulatto girl, aged seven years, who had since early infancy been subject to a breaking-out of water-blisters on her hands, feet, buttocks, and scalp. The eruption began as small, itching pimples, which were rapidly transformed into tense vesicles varying in size from that of a small pea to that of a pullet's egg They remained about one week before breaking, and after drying up left a brownish discolouration but no scar. These blisters were numerous in the warm weather of spring and summer, and they rarely appeared during the winter. The father, who gave the history, had since his earliest recollection been at times a sufferer from the disorder. His mother had been also similarly affected. His wife had never miscarried and was the mother of eight children, three of whom—two brothers and one sister of the patient—had at intervals since their birth had the eruption A microscopical examination of the blood and the contents of the vesicles was made by Dr. T. R. Brown of Baltimore, who found that there was both a general and a local eosinophilia.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

ARRANGEMENTS are being made for a conversazione at the Medical Graduates' College and Polyclinic, 22, Chenies-street, next Wednesday evening. The reception by the President, Sir William Broadbent, will take place at 8 P.M., and some brief lectures will commence at 8.30 P.M. Amongst those announced to lecture are Mr. James Cantlie and Mr. Hutchinson. The latter will take as his topics (1) the Retention of their Leaves through Winter by Deciduous Trees, and (2) the Suppression of One Tusk in Elephants. The clinical museum will be open, and there will be displays of surgical instruments and other objects of interest. We understand that all members of the profession will be welcomed, especially strangers in London. The arrangements are in the hands of Captain A. E. Hayward Pinch, F.R.C.S Eng , to whom, at the above address, all communications should be addressed.

DURING the summer session Dr. Patrick Manson will give a course of lectures on Tropical Diseases at the London (Royal Free Hospital) School of Medicine for Women. The lectures will be given on Tuesdays at 4 30 P.M., beginning on May 7th. The course will be open to all qualified practitioners and medical students, and, as far as possible, the lectures will be illustrated by cases. Further particulars can be obtained from the secretary, 8, Hunter street, W.C.

THE dinner of the Edinburgh University Club of London will take place at the Holborn Restaurant on Wednesday, May 1st, at 7 15 for 7 30 P M., under the chairmanship of Lord Lister, President of the club It is expected that the dinner will be largely attended. Members intending to be present or to bring guests must inform one of the honorary secretaries, Dr James Taylor, 49, Welbeck-street, W., or Dr. G. A. Sutherland, 73, Wimpole street, W.

THE Archbishop of Canterbury will take the chair at the annual meeting of the Church Missionary Society Medical Mission Auxiliary to be held in St James's Hall on Tuesday next, April 30th, at 3 P.M The other speakers will include Mr. A E. Clayton, L R C P , L R.C S Edin. (West Africa); Mr. A T. Kember, L R C P , F.R C S. Edin. (China); and Mr. J. O Summerhayes, M R C S., L.R C.P. Lond. (India).

UNDER the presidency of Sir T Andros de la Rue, Bart., chairman of the council, a festival dinner in aid of the Royal Hospital for Diseases of the Chest, City-road, E C., will be held at the Hôtel Métropole on Monday, May 6th. The object of the festival is to raise £10,000 to purchase a freehold site, to build and to furnish a nurses' home, and to carry on the work of the hospital.

HIS MAJESTY THE KING, who, as Prince of Wales, has been patron of the Royal Orthopædic Hospital since the death of the late Prince Consort, has graciously acceded to the appeal of the governors to continue his patronage.

THE KING has also signified his pleasure in acceding to the request of the council of the Royal Medical

Benevolent College that he should become the patron of the institution.

MR. A. WYNTER BLYTH has been nominated as President-Elect of the Incorporated Society of Medical Officers of Health for the year 1901-1902.

AMONG the recent cases of plague at Cape Town are four European patients. A nurse at the Plague Hospital has died.

THE King has graciously granted his patronage to the Royal Hospital, Richmond, Surrey

THE ROYAL COMMISSION ON SOUTH AFRICAN HOSPITALS.

(Continued from p. 1098.)

IX.

OUR SUGGESTIONS FOR THE RE-ORGANISATION OF THE ARMY MEDICAL SERVICE.

HAVING dealt with the report and suggestions of the Royal Commission we now arrive at the most difficult point—the attempt on our own part to suggest measures of reconstruction and reform. Although it is undeniably true that time is eventually the devourer of all things there is a sense in which it is premature perhaps so to regard it; for whatever may be the remote effect of its operations, time from day to day and year to year manifests itself as a reconstructor and revitaliser of some things which are destined to survive the touch of its effacing fingers for a long period. By a process of selection some things perish, leaving others in the greater prominence. And this, we fancy, will prove to be the case with the army medical service.

One of the most fatal mistakes which can be made is implied in the general belief that all deficiencies can be supplied in time of war by having recourse to civil aid. During the present war a large number of civil surgeons have no doubt been employed with great benefit to all concerned and hospitals have been fitted out by private bounty—some of them with an elaboration of comfort which left little or nothing to be desired and on a scale with which no Government could hope to vie. Nothing can be further from our intention than to say a word in depreciation of the efforts that have been made in this direction and in other directions. There is, and always will be, plenty of room for doing very needful, indeed essentially necessary, work of this kind on the part of the nation and of the various Red Cross societies. Still something more than this is obviously necessary. Whilst war is war no responsible Government can be entirely dependent upon, or rest content with, the provisions of private effort. There must in any case be a thoroughly organised, well-trained, and well-manned army medical service. The Commissioners recommend in their report that immediate steps should be taken at the end of this war to increase the permanent strength of the Royal Army Medical Corps and to provide for its speedy enlargement in times of great wars. They also recommend that inducements should be offered to insure the continuous supply of sufficient men of good professional attainments and that means should be adopted for keeping them *au courant* with the results of medical progress so as to secure a high standard of professional efficiency. As regards the speedy enlargement of the medical corps in time of war our present system of medical reserve is quite inadequate for the purpose. Medical officers on the retired list, but liable to serve again, are not generally fit to do more than to take the place at home of those ordered abroad. Medical service in the army with its frequent and long foreign tours is an exhausting service and men age prematurely and suffer in health in many ways which unfit them for any further hard and exhausting work, so that other sources must be looked to. Seeing that for financial reasons it would be impossible to maintain a permanent medical establishment of sufficient strength to meet the requirements of any big war prosecuted on a modern scale, it seems essential that the establishment that we have should be of the best in training, experience, and efficiency and should be capable of being expanded whenever the occasion arrives. The numbers of the Royal Army Medical Corps must be increased, then, but that does not seem to us to be by any means all that is required. It is not the mere growth of the corps so much as its development that is needed. Our present army medical system is based on sound principles, but it is still in a state of immaturity. What should now be considered is the advisability of some comprehensive scheme, to include not only the regular medical service as an integral part of the army, but the medical services of the militia, volunteers, and colonial forces, supplemented by as much medical aid as is needful in time of war from the staffs of our civil hospitals and from the medical profession generally. Our statesmen proudly boast that the war in South Africa has converted the British Empire from a geographical expression into an accomplished fact. And if our colonies should be willing hereafter to take their share in supporting the Imperial burden they will naturally and rightly expect to have a voice in questions of Imperial policy. There are a good many people who think that in the future there will be required not so much a defensive home army as an Imperial army, and what seems to be wanted under the new and altered conditions of the British Empire is a scheme of organisation which will result in the practical formation of an Imperial Medical Service.

There is every reason to believe that the desire of the War Minister and the trend of public opinion are favourable to the making of such improvements and to the carrying out of such reforms as are necessary to place the medical service of the army in a position which will command the respect and approval both of the medical profession and of the public and will enable it to be prepared for the eventualities of war. Mr. Brodrick's public utterances have, however, been somewhat enigmatical as to his intentions. He declared on one occasion that he was prepared to adopt even drastic measures of reform if necessary, and on a subsequent occasion he intimated that he hoped to be able shortly to bring forward a new and satisfactory scheme for dealing with the army medical service. There is no disguising the fact (which was, indeed, admitted by a late Secretary of State for War) that the army has of late years ceased to have any attractions for the most talented alumni of our medical schools and colleges. We are not at all sorry for any delay that may take place in the introduction of a new scheme, because the matter is one that requires to be considered deliberately. Meanwhile there are some questions which urgently press for attention, such as the readjustment of the rates of pay of medical officers serving in India, the very large and disproportionate amount of foreign as compared with home service, and the way in which medical officers when serving at home are harassed by frequent moves and changes of station to the inconvenience and possible detriment of their patients and their own personal discomfort. We know, of course, that much of this is entirely attributable to the undermanning of the medical service and the exceptional demands caused by the war. Let the circumstances and explanation be what they may the present state of tension cannot be prolonged indefinitely. The campaign in South Africa has not only been a fight with physical geography throughout its whole course but a contest against new weapons and hitherto untried tactics. As regards the medical service, it has been conducted under circumstances of the most exceptionally difficult character and such as were altogether beyond the control of that service. The service must not be placed in such a position again.

Life is short and art is long and, indeed, very complex and diversified in the present day. In order to attain success, whether in our universities, in science, in literature or in art, there is no place for men like Bacon, who took all knowledge for his province; on the contrary, the tendency nowadays is for young men to begin to specialise early in their careers, each to take up his own special fragment of knowledge and to cultivate it to the utmost. This tendency, to the regret of many thoughtful and wise people, is a growing one in the medical profession as in other branches of scientific pursuit. Nor is this to be wondered at, for where so much depends upon knowledge of methods and detail, upon laborious painstaking, upon skill, and upon facility of manipulation, it is beyond the scope of anyone to cope equally well and at the same time with the art of modern surgery in all its branches and with medicine, hygiene, medical statistics, and hospital management. The officers of a public medical service such as that of the army have perforce to do this in a measure, but it is most unreasonable to expect that they can be experts in all subjects alike. What is, however, practically capable of being accomplished is that they should all have an opportunity of refreshing their professional knowledge and that anyone endowed with ability and aptitude in any direction likely to prove advantageous to the State should have all reasonable facilities for exercising these qualities. If such facilities were granted even to a limited member of men, the privilege being guarded against abuse in any way deemed requisite, we should have medical officers proceeding to the highest qualifications in medicine and surgery and these would constitute the pick of the service. The Director-General should, moreover, in the course of time have such a knowledge and record of the capacities, qualifications, and characters of his officers as to enable him at any moment—as on the outbreak of war, for example—to put his finger upon the right men to fill the right places. One of the main objects of the introduction of a general or consolidated medical system instead of the regimental one was to acquire such knowledge by putting medical officers in the exercise of their hospital and professional duties in competition with one another and in the presence of those who were qualified to form an opinion of their work instead of those who were not. But, like many other projects, it failed or proved futile. There are no means, or very few, of rewarding medical officers for professional distinction or scientific work in the service; and, speaking generally, promotion by selection has been apparently attended with so many difficulties that it has never been strictly adhered to. There should, in our opinion, be far more rewards held out for professional merit.

The German Empire is essentially a military Power. That *being so, looking to the geographical position of Germany* and the greater centralisation of political power in that country, we might expect that there would be a military organisation and pattern impressed upon, and running through the web and woof of, its governing and social fabric, and our expectations would be justified. In this country, where we have no compulsory military service and arrangements have to be made for periodical tours of foreign service on the part of our army, and where so much political power, freedom, and independence exist among the masses, things are different. National systems have grown out of national needs, but such systems have to be suitable to the character of the people and have, moreover, to be moulded and to be adapted to the existing environing conditions. It may be said that the German Government, owing to its one-portal system of government qualification to practice, has a lien and a claim on every medical man's services, and each of them has in time of peace the military rank and the post assigned to him which he would occupy in time of war. The best known university professors are accorded a military rank corresponding to the social and scientific positions which they occupy, and they act as consultants to the medical officers of the army in the field or at base hospitals in time of war and as their clinical instructors in time of peace There is, moreover, an elaborate system by which medical officers and others are not only attached to hospitals for duty and systematically put through special courses of instruction, but many of the senior medical officers are selected and entrusted with responsible hospital work of all kinds where their duties are not confined to military patients only but embrace civil patients. The forthcoming imperial autumn manœuvres to be held this year in the province of Prussia will show how keenly alive the German Government is to keep pace with military progress, and to bring any new methods and new inventions of warfare to the test of experimental trial. At the moment of writing these articles we learn that the medical department of the German army is to be reorganised; that candidates will be subjected to special examination in military surgery; that medical officers will make tours in future, under the guidance of the surgeon-general, similar to those made by the officers on the general staff; and that sanatoria are to be established for each army corps. In any case, without slavishly copying or following out all the details of the German system it should be possible to take the object and principles underlying that system as a framework for constructing a scheme of our own. Even without assigning beforehand military ranks and titles to all to whom it was proposed to apply in the civil walks of the profession for their aid and coöperation in time of war, there are a good many things that could be done which, it seems to us, it is highly desirable to set about doing. The more important European military Powers have in some respects outstripped this country in the race for medical efficiency in the field and in the importance which they attach to giving to their medical officers increased facilities for study and to having their hospital arrangements and equipment ready with both officers and men properly trained in their use. Not only should field hospitals be complete in every respect, but the whole service should be organised as a body of independent units capable of acting separately or combined. It goes without saying that medical officers should be encouraged in every way to avail themselves of every opportunity, both here and on the continent, of becoming practically acquainted with systems of army medical administration and with all the latest appliances and the results of modern researches. Merely theoretical and book knowledge will do little or no good and will be of little or no service to the State or to the individual. Actual experience and skill in the application of new methods and practices, these have a significance of their own compared with which other acquisitions of theoretical knowledge are of relatively insignificant value.

In outlining a scheme for the remodelling of the army medical service we recognise all the difficulties of the task and we are not vain enough to believe that anything that we can put forward will be so complete, self balanced, and practicable as to commend itself to all, and still less that there will be any finality about it. Let it be taken for what it is worth, and as put forward thoughtfully and in all good faith. The biggest and boldest policy is sometimes the best and the cheapest policy in the end, and in any case it may supply a standard which can be worked up to in the future.

The Status of the Director-General.

1. We propose that the Director-General as directing head of the whole medical service should occupy such a position, receive such a salary, and preside over, and be aided in his work by, such a headquarters' bureau as may be deemed worthy of the post which he holds and its responsibilities; and further, that the Director-General should have direct access to the War Minister when he deems it necessary in the public interest. The functions and responsibilities of the Director General are of an altogether exceptional as well as of an arduous character and are such as seem to us to require that he should have the right of access to the Secretary of State in order to submit personally his views and recommendations on grave or emergent matters, such as questions affecting the preparations for war and the sanitation and health of the army, instead of having them filtered through one of the heads of the departments of the War Office.

The Army Medical School in London

2 The Army Medical School should be in London instead of at Netley, and we think that for choice it should be called the "Imperial Medical Service Institute" or "Imperial Medical Service School." We believe that we fully appreciate all that can be said for and against this proposal, and we have come to the conclusion that the arguments in favour of removing the school from Netley to the metropolis greatly preponderate. It is no doubt a serious difficulty that there should be a Royal Victoria Hospital and an attached school already established at Netley and we can quite understand that this fact might in itself be deemed prohibitive of any change. But we do not think that it need be so. Netley as a medical school is inconveniently distant from London. The hospital, notwithstanding its fine and imposing appearance, is, as we think will be generally admitted, not up to the present sanitary standard. But the hospital might remain where it is, it could still be utilised as at present for our transported invalids, and the medical candidates could be temporarily stationed there if necessary during the height of the invaliding season from India and other foreign climates. All coming to this country—including, of course, all medical officers—find themselves in London, and it seems therefore only right and fitting that a medical school of such importance should not be located in the country but in the capital. When the Royal Victoria Hospital was originally built, in the lifetime of the Prince Consort and of her late Majesty Queen Victoria, the site was probably chosen owing to its proximity to Osborne and to the facility which it

offered to the Queen for showing the great interest which Her Majesty always felt in her sick and wounded soldiers. But the monarch will not necessarily be found at Osborne, while London is permanently the capital of the Empire, the place where all congregate. With the number of hospitals in the metropolis, and the extent and variety of injuries and diseases of all kinds to be seen there, London affords an amount of medical and surgical experience and practical information which are procurable probably nowhere else. Access is quickly obtained to most parts of London and almost every conceivable form of instruction is to be had as well as information regarding other places, such as universities and schools abroad. It is not simply going through a course at a special military school or hospital that the medical officer requires on returning from foreign service. He desires to have opportunities of attending post-graduate courses, of studying, and of observing the practice at various hospitals and schools both at home and abroad. If an Imperial Medical Service School were established in London the more cosmopolitan it were in character and the wider its portals were thrown open the better would it be. Not only should its course of instruction be open to all medical officers of the army and of the navy but also to all medical officers of the Indian Medical Service, militia, volunteers, and colonial corps who happened to be in this country and who cared to avail themselves of it. It would be regarded as a distinction and privilege to be a professor in such an institution, and the very publicity of all the proceedings connected with it would very materially tend to attract men of eminence and to keep its appointments free from jobbery and abuse.

GREATER FACILITIES FOR INSTRUCTION OF MEDICAL OFFICERS.

3. Medical officers should be encouraged in all professional studies and in making themselves acquainted with the methods of army medical administration, hygiene, and equipment of other countries. Leave should be granted to them for this purpose and for taking out special courses of instruction both in this country and on the continent, certificates being exacted to insure that the time was actually spent in pursuit of the intended object.

ABOLITION OF ENTRANCE EXAMINATION.

4. We recommend the abolition of the present entrance competitive examination of candidates for the Army Medical School but the retention of the examination on all the subjects which they have been taught there before leaving the establishment and being commissioned as officers of the Royal Army Medical Corps. In the first place, the entrance examination has ceased to be competitive. Moreover, the competitors have all recently become qualified and have therefore had to undergo repeated examinations during their course of study, and they should have already shown their quality by the hospital posts which they have held and by the degrees and diplomas which they have taken. Any further re-examination for the army is naturally distasteful to the large majority of them, and it seems to be superfluous and unnecessary to subject a man to professional tests similar to, or identical with, those to which he has already just been subjected in order to obtain his qualifications to practise. It is not at that time but at a subsequent stage of his career as a medical officer that the desirability or necessity of an examination test comes in; therefore let there be substituted a competitive examination for medical officers in the place of that now in force for candidates on entrance. It cannot be necessary to place or to grade the candidates in some order of priority from the beginning.

PROPOSED EXAMINATIONS.

5. The examination of the medical officer in substitution of the entrance competitive examination of the medical candidate might be taken somewhere within the first ten years of the officer's service, the time to be chosen by the medical officer and regulated by the convenience of the service. Such examination should be of two kinds, one a compulsory and pass examination, the other a voluntary and special or honours examination. (*a*) In the pass examination a certain standard of proficiency should be exacted in order to show that the officer has kept himself reasonably acquainted with the progress of surgery, medicine, army hygiene, and army medical organisation and administration (all to be as practical and pertinent to army service and hospital requirements in peace and war as possible). (*b*) The honours examination should be voluntary in any subject or subjects that the candidates may select, such as military surgery, medicine, epidemiology, hygiene (including bacteriology), &c. A separate list should be kept of the honours men and their names should be marked with an asterisk or some distinguishing letters as is now done with officers who have passed the staff college (*p.s.c.*).

INSTRUCTIVE MILITARY MANŒUVRES.

6. In all military manœuvres in which a composite force of regulars, militia, volunteers, and colonial corps take part the mimic warfare should be as like real war as practicable. The hospital and medical part should be on one uniform and organised plan with some sort of unification of all the medical services and their officers, so that they may rehearse in times of peace what would be actually required of them in war, every man knowing his place and being in it. Everything should be carried out as on active service in the field, but on a reduced and miniature scale, of course, and field, stationary, and general hospitals should be represented. Experimental trials should be made of a system by which general hospitals could be split up and divided into smaller units to meet the exigencies of war, as in the case of long and impracticable lines of communication, change of base, or the temporary provision of more than one base. The surprises and other unexpected occurrences of war might be counterfeited so as to test the promptitude and judgment of medical officers under all sorts of conditions; and one or more of them might be selected in turn to design, to organise, and to arrange for the medical requirements of a force at such manœuvres, forwarding their proposed schemes to the principal medical officer under whom they are serving.

DELEGATION OF CERTAIN EXISTING DUTIES OF THE ROYAL ARMY MEDICAL CORPS.

7. To the question asked by the Royal Commissioners in their report, "Whether it is advisable and practicable to some, and if so to what, extent, that the Royal Army Medical Corps should have exclusive possession of and control over all necessaries for the sick and wounded (other than ordinary food and clothing, not being hospital clothing), so as to avoid the necessity of requisitioning upon the Army Service Corps or the Ordnance authorities," our reply would be that it is both advisable and practicable, but not in the way indicated by the Commissioners. It seems to us that medical officers in time of war are, as a rule, overwhelmed with work and responsibility and that they are expected to carry out—that is, to execute—duties which should be discharged by others who should act under the direction of, and subordinate to, the medical service. In order to guard against any misapprehension we may say that medical officers must, under the general officer in supreme command, have independent control over everything coming within their legitimate functions and sphere of duty, but that is no reason why they should have to discharge all the duties appertaining thereto. *Qui facit per alium facit per se.* There are a number of outside duties of a purely military or *quasi*-military character, such as drill, charge of animal transport, the drawing of rations, the purchase of food and stores, &c., of which they might usefully be relieved by, let us say, the Army Service Corps, if men of that corps were specially told off to carry out their orders. The *Intendance* of the old French army system became intolerable because it exercised its power in hospitals over the heads of the medical officers instead of under them. The medical officers of the French army have for many years now been completely emancipated from the control of the *Intendance*, and the French medical service has, perhaps, a more perfect autonomy than is the case in any other European army. But we are not without a precedent in modern military history for the kind of arrangement which we have in view. There is nothing of such importance in connexion with field medical administration as transport; it is, as it were, as the linch-pin of a cart or the pivot on which the success of the hospital system in war turns. The Americans notably found this to be the case in their great war, and in 1864 a most important Act was brought before Congress by the War Department and passed into law. The ambulance transport was completely separated from the other transport services of the army and was placed under the direction of the head of the medical department who had not only the direction of the

vehicles for the carriage of the sick and wounded but also that of the officers and men employed, subject only to the general authority of the officer commanding the forces in chief. The medical director or chief medical officer of an army corps had simply to issue his orders to those in charge of the ambulance, and the quartermaster-general's department was relieved of all authority and responsibility in the matter. We should like to see a practical trial given to a system by which the Royal Army Medical Corps, while still possessing all necessary power and responsibility, could be relieved of duties of a more purely military kind, such as the charge of transport animals and the purchase of stores. It should be sufficient for them to issue the orders, they should be spared the responsibility of execution. There is a possible danger connected with this power to purchase on the part of the medical service which should not be altogether lost sight of—namely, that the supply departments might relax their efforts to meet a medical officer's requirements in consequence of the knowledge that the latter could purchase in the local markets, and an unfair strain and responsibility might thus be entailed on the medical service.

CORPS UNIT MEDICAL OFFICERS.

8. Every corps unit should have a medical officer *attached* to it who should remain with it for a definite time (say five years) in order to familiarise him with the habits, customs, and regulations of military life, to avoid the inconvenience and discomfort to patients of frequent changes of medical officers doing duty with the officers, men, women, and children of a corps, and to furnish some one reliable medical man to whom the officer commanding and all in the corps could apply. The medical officer doing this duty might, wherever practicable, take his part in professional work at the station hospital and in the occasional garrison duty common to all. A regiment has a medical officer with it in war and it is for the mutual benefit of both that it should have one in peace also. In the armies of France, Germany, Austria, Italy, and Russia the system in force, as a general rule, combines the advantages both of the general and regimental systems. Every battalion has its medical officer. In Germany and Austria the regimental medical officer does departmental duty in the general hospital, while in France, Italy, and Russia he attends the sick in the regimental hospitals or infirmaries which are established for the treatment of minor cases.

BARRACK DISPENSARIES.

9. We think that a barrack dispensary system could be advantageously introduced into the British army and that small station or depôt hospitals might, to some extent, be done away with, as they are frequently a waste of money and energy. Arrangements might be made for utilising civil hospitals, wherever practicable, for the purpose. A notable feature in the French army is the utilisation of civil hospitals for military medical service. The soldier patients might be under the care of medical officers, as was the case, we believe, not long ago in Edinburgh. The men of the Royal Army Medical Corps should be trained on both sides so as to have the advantage of a medical (ward) standard as well as a military (disciplinary) standard. For infectious diseases in the army existing civil hospitals for infectious diseases should as far as possible be utilised on the score of economy.

DUTIES OF MEN OF THE ROYAL ARMY MEDICAL CORPS.

10. The men of the Royal Army Medical Corps should be thoroughly trained in their duties as hospital orderlies and cooks. War is exceptional, and when it occurs the inefficiency from sickness is invariably much in excess of that from wounds. It follows that men who have to act as hospital orderlies should be trained in those duties which they are most commonly required to fulfil, in peace and war alike. Their hospital (ward) dress should be of a suitable character. Military drills should be reduced as far as possible. The duties of the hospital orderlies are of too miscellaneous a character They learn their company and stretcher drill and from their military associations and surroundings are, perhaps, too apt to exalt the importance of military in comparison with medical matters. It is not easy to serve two masters, the tendency being to hold to the one and to despise the other, the other in this case being the medical side of their duties. The men of the corps are, nevertheless, as a rule, excellent and zealous in their work. It will be seen that we concur with the Commissioners in their suggestion that the officers of the corps should, so far as is consistent with a due maintenance of discipline, relax the strict military rule generally adopted in hospitals so as to give an additional feeling of ease to the patients and to enable them better to appreciate the comforts of a hospital. We think, moreover, that the medical officer in charge should make a practice of periodically going round with his medical staff and of identifying himself with their professional work as much as possible by inquiring into the nature, causes, and treatment of the cases. If he has any remarks to make or suggestions to offer it is needless to add that he should pay due regard to professional ethics.

FEMALE NURSES.

11. Without skilled female nurses nursing cannot be properly carried out and it will probably be necessary under ordinary and existing circumstances to increase the existing establishment. It will certainly be so in case of war on any large scale.

SUPPLEMENTARY HOSPITAL PERSONNEL.

12. With a view to being ready to supplement the regular army medical service to any required extent in case of war we consider that the following registers or lists should be prepared and kept in the medical branch of the War Office: (1) a nominal list of those members of the junior staffs (medical and surgical) of all the more important hospitals in the United Kingdom and of the colonies who would be willing in case of need to proceed to the seat of war and to give their professional services (an annual retaining fee would be money well laid out for this purpose); (2) a similar list of trained female nurses and of nursing institutions, as well as of Red Cross societies and other philanthropic bodies with the estimated amount of available aid which they could respectively furnish in time of war. The civil element should be very freely utilised in war at general and stationary hospitals and, of course, in private hospitals sent out as supplementary aid to the medical provision afforded by Government. In cases of great pressure or emergency the civil element might largely take over the hospital duties at the base and at the rear, and so free the military medical element for the work in front where it would be most urgently needed.

FIELD HOSPITAL UNITS.

13. There should be some field hospitals organised and working as complete and independent hospital units, on the lines of a field battery of Royal Artillery at our camps and garrisons, ready to take the field with their existing establishments. Were it so and were these field hospitals practised on every available occasion, it should be easy, on the mobilisation of troops for active service, to attach transport from the general transport of the army, together with a certain proportion of a bearer company, and to allow the whole to embark as a field hospital unit ready to take the field at once. In this way officers and men who had worked together in times of peace would maintain the same relations in war, harmony would be secured, and the competition between one field hospital and another would excite wholesome emulation.

POINTS CONCERNING ABOVE.

14. The following points should be considered with a view to their final settlement:—The attachment of bearer companies to field hospitals for employment in connexion with them when no fighting was taking place and their services were not elsewhere required; the size and equipment of field hospitals (which must obviously always be kept as light and mobile as possible and have only a limited supply of stretchers instead of bedsteads); the size and equipment of stationary and general hospitals and the divisibility of the latter into smaller sections—say of 100 beds (of a lighter and narrower kind of bedstead than those now in use); the nature and amount of hospital transport; and arrangements for the possible supply of a large force of Indian dhoolie-bearers in case of need.

SANITARY CORPS.

15. Assuming, as we assuredly may, that special sanitary officers will be appointed and will form part of any future military expedition, the question will also have to be discussed whether any sanitary body or corps for executive sanitary work should be organised, and, if so, whether it should be affiliated to the Quartermaster-General's department or that of the medical service or should have a special and separate existence under the orders of the chief sanitary officer. It would be scarcely practicable to employ untrained

civil labourers on first effecting a landing on an enemy's soil. What might possibly meet the occasion would be a large and well-organised body for executive conservancy work in connexion with the Quartermaster-General's department.

RESERVE OF STORES.

16. The reserve medical stores kept on hand must obviously be calculated on the number of army corps or force maintained on the home establishment as efficient, ready, and designed for the express purpose of offensive warfare. It is equally obvious that the most portable and compressed forms of medicine and drugs must largely enter into the list of preparations intended for field service, that the number and variety of these must be restricted to those of well-known and established reputation, and that medical officers and others must learn that bodies of troops operating in the field cannot be accompanied on service by a section of wholesale dispensing chemists and their drugs, and that what may be termed a "great run" on any particular drug when others would suffice equally well has to be carefully avoided. It is a question whether a certain amount of shipping transport could not be placed entirely at the disposal of the Director-General, so that medical stores, accompanied by a supercargo provided with lists of everything on board, could be sent out in the transports and hospital ships for field service use.

LIGHTENING OF CLERICAL WORK IN THE FIELD.

17. The conduct of the business transactions connected with field service seems to us to be susceptible of improvement in the way of more directness of aim and simplification, and this might be effected by taking a leaf out of the method adopted in civil life, as at the various Coöperative Stores, for example With the view of instructing medical officers, the officers of the supply departments, and all concerned with the field medical arrangements, as well as with the object of decreasing the amount of clerical labour and of facilitating the conduct of business as far as practicable, a portable handbook or *précis* of these arrangements should be published by authority and used as a general guide. This should be issued on the order for mobilisation and be considered as binding on all concerned during a campaign. It should not only succinctly set forth the different scales of hospital equipment provided, but the different sources of supply to which requisitions and applications have to be addressed, together with condensed notes of a practical character. This was, we believe, done with practical advantage on the occasion of some of the Afghan campaigns. A *précis* of field medical arrangements was published under the sanction, and with the authority, of the military department of the Government of India. Every medical officer should be supplied with a copy of such a portable handbook as we are referring to, with a carbon book for making short communications and requisitions on departments, a small almanac-diary, and a medical certificate form-book, these should be all that are personally necessary for his use. Other documents and forms of returns could be kept at the field, stationary, and general hospitals. With the agency of the carbon book a duplicate of any communication or requisition addressed to individuals would be preserved, and these, with the entries in the diary, would remain as a permanent record, so far as they went, of the medical transactions in the field and could be handed in as so many vouchers at the end of a campaign. All that related to more elaborately prepared documents and returns connected with the official medical transactions and history of the war should be relegated to the hospitals furnished with a more or less permanent staff of medical officers and provided with the requisite clerical aid.

TREATMENT OF CONVALESCENTS.

18. Among the subjects which might be usefully taken up for consideration at the present time, when a large number of invalids have already returned, or are returning, from the war, is the question of the greater utilisation of military hospitals and barracks situated in favourable districts for convalescing soldiers requiring change of air and for such as need special hospital accommodation and treatment—the open-air treatment of pulmonary tuberculosis, for example. The sites occupied by some of the Government hospitals and buildings are so salubrious and good that it seems to be a pity to restrict the advantages to the sick, suffering for the most part from trifling ailments, drawn from the troops quartered in the neighbourhood. We have not yet heard of any movement in the army in the direction of the open-air treatment so successfully adopted in certain forms of pulmonary disease.

HOME MILITARY HOSPITALS.

19. The opportunity should be taken in the interest of the sick soldier to inquire into the subject of the management of home military hospitals, concerning which an article by Mr. W. Pugin Thornton of Canterbury was recently published in these columns.[1] As Mr. Thornton's paper professes to be largely based upon a statement of facts and sets forth the results of a personal experience acquired in a military hospital it seems to us to be well deserving of attention at the present time.

MEDICAL PRACTITIONERS AND UNQUALIFIED (PHARMACEUTICAL) ASSISTANTS.

A JOINT meeting of the Glasgow Southern Medical Society, the Glasgow and West of Scotland Branch of the British Medical Association, and the Glasgow Eastern Medical Society was held in Glasgow on April 17th, Dr. WILLIAM WATSON, President of the Glasgow Southern Medical Society, being in the chair.

It was unanimously resolved that the following memorial should be forwarded to the General Medical Council:—

> That the memorialists are medical practitioners in Glasgow and the West of Scotland and have a right at common law, in virtue of their degrees granted by the Scottish universities and of their diplomas granted by the three qualifying corporations of Scotland, to sell drugs and poisons, including the scheduled poisons under the Pharmacy Acts. That the liberty of selling drugs and poisons (except scheduled poisons) belongs to every British subject and the memorialists are under no disability in this respect merely because they are members of the medical profession. That the rights and privileges of the memorialists as medical practitioners to sell drugs and poisons, including the scheduled poisons, are expressly reserved by Parliament (32 & 33 Vict, cap. 117, section 1). That the memorialists have learned with surprise and alarm of a conviction of a registered medical practitioner on a charge in the following terms: "That he, being a registered medical practitioner, habitually employed as assistants for the sale of drugs and poisons persons who are not qualified to act as chemists or pharmaceutical assistants, and thereby causes such persons to commit breaches of the Pharmacy Acts." The conviction is said to have been that the registered medical practitioner in question was guilty of "infamous conduct in a professional respect." The memorialists are bound to assume that conduct of a grave and reprehensible character was proved to the satisfaction of the General Medical Council before such a conviction could take place, but of the facts proved and the arguments used they have no knowledge. That a general impression has gone abroad that the only evidence against the registered medical practitioner in question was evidence in support of the charge as quoted, and that on this charge he was convicted of infamous conduct in a professional respect. That this view of the matter is publicly stated and commented on in trade journals, such as the *Pharmaceutical Journal* of Dec 8th, 1900, and the *Chemist and Druggist* of the same date, and no secret is made of the meaning of such a judgment—viz., altogether to deprive medical practitioners of the right to sell drugs and poisons. In the view of the memorialists this is an illegal and unwarrantable interference with the memorialists' rights, and they do not believe that the General Medical Council intended to lay down any such general doctrine or to impose any such disability. That a difference of opinion formerly existed as to the true interpretation of section 15 of the Pharmacy Act, 1868, some holding that the person who commits the offence under that section is the person who keeps open shop, to whom the poisons belong, and on whose behalf the sale is effected; others holding that the only offender under that section is the actual salesman. The latter view has received judicial sanction both in England and in Scotland, with the result that the salesman and not the owner of the shop is the person liable. That if the judgment of the General Medical Council in the case of the registered medical practitioner above referred to is to be regarded as a general statement of their views as to the responsibility of medical practitioners, it amounts to a reversal of the decisions of the law courts when interpreting section 15 of the Pharmacy Act, 1868. It makes the owner of the shop liable for offences under that Act, whereas the law has decided that the salesman and not the owner is the person liable. That under section 15 of the Pharmacy Act, 1868, a certain statutory penalty is imposed upon persons infringing—viz., a fine of £5; but the decision of the General Medical Council not only imposes a penalty upon persons not struck at by that section of the Act, but also imposes an entirely new penalty—viz., deprivation. Where Parliament has prescribed the penalty to be attached to any Act it is incompetent for the General Medical Council, or any other body except Parliament, to alter or increase the penalty. To subject registered medical practitioners to the risk of being struck off the Register because a salesman of theirs sells drugs or poisons is unauthorised by any Act of Parliament and is an unconstitutional assumption of statutory authority on the part of the General Medical Council. That the memorialists are not concerned to defend any medical practitioner who authorises his assistants to sell scheduled poisons. They recognise that, as the law stands, the utmost care should be taken to prevent such sales by anyone not duly authorised. But even in such an

---

[1] THE LANCET, March 30th, 1901, p. 958.

[illegible] view with alarm the attempt now being made [illegible] er [illegible] — [illegible] at [illegible] so- [illegible] a- [illegible] ve [illegible] he [illegible] are [illegible] assistants must not entitle [illegible] s of sell act [illegible] st to dispens [illegible] iders the co [illegible] the which [illegible] salesman himself, there is no restriction upon the employment of [illegible] or not. The memorialists cannot [illegible] n the part of a pharmaceutical [illegible] n a professional respect" on the [illegible] in some quarters the decision of [illegible] interpreted to mean that where [illegible] victed under the Pharmaceutical [illegible] he should, in addition to the [illegible] the Act of 1868, be subjected [illegible] dismissal at the hands of his employer, and that a failure on the part of an employer so to dismiss an offending assistant amounts to "infamous conduct in a professional respect." This view of th [illegible] has been already urged— [illegible] to the penalty imposed b [illegible] further objection that [illegible] no law requires, and what in many cases may be a very harsh act, is to be treated as infamous conduct Speaking generally, no omission of that kind can be properly so characterised Infamous conduct must consist of some overt act, not any omission But, apart from this, it can never be infamous to omit to do what no law requires to be done.

The memorialists, therefore, respectfully submit that this matter should be reconsidered and that, whatever be the special circumstances justifying the decision in the case of the registered medical practitioner above referred to, no general doctrine should be laid down to the effect that the employment by a registered medical practitioner of an unqualified person to sell drugs and poisons is "infamous conduct in a professional respect."

It was also agreed that the following gentlemen should be appointed a deputation to support the memorial before the General Medical Council—viz., Dr. John Lindsay Steven, Dr. Russell, Dr. G E. Robertson, Dr David Young, Dr. William Watson, Dr John Stewart, Dr. J. H. Nicoll, and Dr. John Y. Orr.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 7385 births and 4159 deaths were registered during the week ending April 20th. The annual rate of mortality in these towns, which had been 19 2 per 1000 in each of the two preceding weeks, declined to 18 4 per 1000 last week In London the death-rate was 17 5 per 1000, while it averaged 19 0 per 1000 in the 32 large provincial towns. The lowest death-rates in these towns were 10 8 in Burnley, 11 2 in Halifax, 11·9 in West Ham, and 12 3 in Cardiff; the highest rates were 22 7 in Manchester, 22 9 in Liverpool, 23 7 in Nottingham, and 25 4 in Wolverhampton. The 4159 deaths in these towns included 346 which were referred to the principal zymotic diseases, against 380 and 397 in the two preceding weeks; of these, 117 resulted from measles, 108 from whooping cough, 39 from diphtheria, 33 from diarrhoeal diseases, 27 from "fever" (principally enteric), 20 from scarlet fever, and two from small-pox No death from any of these diseases was registered last week in Croydon, Plymouth, Huddersfield, or Halifax; in the other towns they caused the lowest death rates in Norwich, Birkenhead, Oldham, and Newcastle, and the highest rates in Hull, Sunderland, and Gateshead The greatest proportional mortality from measles occurred in Portsmouth, Liverpool, Bolton, Blackburn, Leeds, and Sunderland; from scarlet fever in Blackburn, and from whooping-cough in Bristol, Hull, and Sunderland The mortality from "fever" and from diarrhoeal diseases showed no marked excess in any of the large towns The 39 deaths from diphtheria included 11 in London, four in Bristol, four in Manchester, three in Leeds, and three in Sheffield Two fatal cases of small pox were recorded in Hull, but not one in any other of the 33 large towns; and no small-pox patients remained under treatment in any of the Metropolitan Asylums hospitals on Saturday, April 20th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 1526, against 1568, 1572 and 1601 on the three preceding Saturdays; 150 new cases were admitted during the week, against 167, 180, and 205 in the three preceding weeks The deaths referred to diseases of the respiratory organs in London, which had been 360 and 345 in the two preceding weeks, rose again last week to 374, but were slightly below the corrected average. The causes of 39, or 0 9 per cent, of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Bradford, Leeds, and 16 other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Hull, and Gateshead.

HEALTH OF SCOTCH TOWNS

The annual rate of mortality in the eight Scotch towns, which had been 24 1 and 23 2 per 1000 in the two preceding weeks, further declined to 23 0 per 1000 during the week ending April 20th, but showed an excess of 4 6 per 1000 over the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 18 5 in Perth and 20 5 in Aberdeen to 26 7 in Greenock and 28 3 in Dundee. The 722 deaths in these towns included 56 from whooping-cough, 23 from diarrhoea, 21 from measles, 10 from small-pox, four from "fever" two from scarlet fever, and one from diphtheria In all, 117 deaths resulted from these principal zymotic diseases last week, against 102 and 95 in the two preceding weeks. These 117 deaths were equal to an annual rate of 3 7 per 1000, which was 2 2 above the mean rate last week from the same diseases in the 33 large English towns The fatal cases of whooping-cough, which had been 57 and 51 in the two preceding weeks, rose again last week to 56, of which 37 occurred in Glasgow, 14 in Edinburgh, two in Dundee, and two in Paisley The deaths from diarrhoea, which had been eight and 13 in the two preceding weeks, further increased to 23 last week, and included 12 in Glasgow, five in Edinburgh, and four in Dundee The fatal cases of measles, which had been 16 and 17 in the two preceding weeks, further rose last week to 21, of which eight were registered in Edinburgh, five in Dundee, four in Leith, and two in Glasgow. The deaths from small-pox, which had been 10, five, and six in the three preceding weeks, rose again last week to 10, and were all recorded in Glasgow, where two of the four deaths from "fever" and the two fatal cases of scarlet fever were also registered The deaths referred to diseases of the respiratory organs in these towns, which had increased from 126 to 155 in the four preceding weeks, declined again to 130 last week, and were slightly below the number in the corresponding period of last year. The causes of 34, or nearly 5 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 31·9 and 35 6 per 1000 in the two preceding weeks, declined again to 35 4 during the week ending April 20th. During the past four weeks the death rate in the city has averaged 34 2 per 1000, the rates during the same period being 18 0 in London and 23 1 in Edinburgh. The 235 deaths of persons belonging to Dublin registered during the week under notice were within one of the number in the preceding week, and included 18 which were referred to the principal zymotic diseases, against 12 and 15 in the two preceding weeks; of these, nine resulted from whooping cough, four from diarrhoea, three from "fever," and two from scarlet fever. These 18 deaths were equal to an annual rate of 2 7 per 1000, the zymotic death-rate during the same period being 1·5 in London and 4 7 in Edinburgh. The fatal cases of whooping-cough, which had been five and eight in the two preceding weeks, further increased last week to nine The deaths from diarrhoea, which had been one and three in the two preceding weeks, further rose to four last week. The fatal cases of "fever," which had been four and two in the two preceding weeks, rose again to three last week. The mortality from scarlet fever corresponded with that in the preceding week. The 235 deaths in Dublin last week included 34 of children under one year of age and 65 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons showed a slight decline from the numbers recorded in the preceding week. Twelve inquest cases and six deaths from violence were registered; and 98, or more than two-fifths, of the deaths occurred in public institutions The causes of 11, or nearly 5 per cent, of the deaths in the city last week were not certified.

THE SERVICES.

SOUTH AFRICAN WAR HONOURS.

THE King has given orders for the following promotions and appointments in recognition of the services of the undermentioned officers during the operations in South Africa. These rewards are for services in South Africa up to Nov. 29th, 1900, the day on which Field-Marshal Lord Roberts handed over the command. Owing to the multitude of recommendations forwarded to the Commander-in Chief it has not yet been possible fully to examine those for regimental service or those relating to the Militia Yeomanry, Volunteers, and certain other services.

ROYAL NAVY.

To be a Companion of the Distinguished Service Order:—

Staff Surgeon Ernest Courtney Lomas, R.N.

Staff Surgeon Lomas entered the service in 1891 as Surgeon and was promoted last year to Staff Surgeon for services in South Africa

THE ARMY.

To be Ordinary Members of the Military Division of the Third Class, or Companions of the Most Honourable Order of the Bath:—

Colonel William Flack Stevenson, R.A.M.C, Professor of Surgery at the Army Medical School, Netley; principal medical officer on the line of communication in South Africa.

Colonel (local Surgeon-General) James Francis Supple, R.A M.C.

Colonel Supple served in the Ashanti war of 1873-74 and was present at the attack and defence of the hospital at Foomanah (medal). He also served in the Afghan war of 1878-80 (medal) and with the Sixth Brigade (mentioned in despatches, medal and clasp).

Lieutenant-Colonel (local Colonel) William Donovan, R.A.M.C., principal medical officer, Cavalry Division.

Colonel Donovan served in the Afghan war in 1879-80 with the Cabul field force and afterwards with the Koorum force and took part with the Zarmusht expedition under Brigadier-General Tytler, in medical charge of the 85th King's Light Infantry, including the assault on Lawa (medal) He also served in the Boer war of 1881 with the Natal field force as a volunteer. He served with the Chitral relief force under Sir Robert Low in 1895 (mentioned in despatches, medal with clasp).

Lieutenant-Colonel (local Colonel) Oswald Gillespie Wood, R.A.M.C.

Colonel Wood served in the Egyptian war of 1882 and was present at the battle of Tel-el-Kebir (medal with clasp and Khedive's star).

Lieutenant-Colonel (local Colonel) Alfred Keogh, R.A.M.C.

Colonel Keogh entered the service in 1880 and reached the rank of Lieutenant-Colonel in 1900.

Colonel W. D. C. Williams, New South Wales Army Medical Corps.

To be an Ordinary Member of the Second Class, or Knight Commander of the Order:—

Sir William MacCormac, Bart., K.C.V.O., consulting surgeon to the forces.

To be Ordinary Members of the Third Class, or Companions of the Order, the following consulting surgeons to the forces:—

Sir Thomas Naghten Fitzgerald, Kt., Sir William Thomson, Kt., Mr. Alfred Downing Fripp, M V.O., Mr. George Henry Makins, Mr. Frederick Treves, M.V.O., Mr. William Watson Cheyne, Mr. George Lenthal Cheatle, Dr. Kendal Franks, and Dr. John Chiene.

To be Ordinary Members of the Second Class, or Knights Commanders of the Most Distinguished Order of St. Michael and St. George:—

Surgeon-General William Deane Wilson, A.M.S., Principal Medical Officer in South Africa.

Surgeon-General Wilson served in the Afghan war of 1878-80, and in the Soudan expedition under Sir Gerald Graham in 1884 as principal medical officer of the Infantry Brigade, and was present in the engagements at El Teb and Temai (mentioned in despatches, promoted Surgeon Major, with relative rank of Lieutenant-Colonel, medal with two clasps and Khedive's star).

Colonel Thomas Joseph Gallwey, C.B., R.A.M.C., principal medical officer of the Infantry Division in South Africa.

Colonel Gallwey served in the Afghan war of 1879 and was present at the attack and capture of Ali Musjid (medal with clasp). He served in the Egyptian war of 1882, and was present at the battle of Tel-el-Kebir (medal with clasp and Khedive's star); with the Nile expedition of 1884-85 when he had charge of the Debbeh Field Hospital and took part in the operations of the Desert column on its return to Korti (mentioned in despatches, promoted Surgeon-Major, clasp); and also with the Dongola expeditionary force, under Sir H. Kitchener, in 1896 as principal medical officer to the force, including the engagement at Firket and the operations at Hafir (mentioned in despatches, C B, British medal and Khedive's medal with two clasps). In 1897-98 he was principal medical officer with the Egyptian army and was present at the battles of the Atbara (mentioned in despatches) and Khartoum (mentioned in despatches, promoted to Colonel, two clasps to Khedive's medal). He was nominated to the third class of the Medjidieh for services under the Egyptian Government.

To be Ordinary Members of the Third Class, or Companions of the Order:—

Colonel Edmond Townsend, C B., R A.M.C., principal medical officer, 1st Infantry Division in South Africa.

Colonel Townsend was present at Belmont and Enslin. He served in the Abyssinian campaign from December, 1867, to June, 1868, and was present at the action of Arogee (medal). Served throughout the operations in the Malay Peninsula in 1875-76, including the actions of Jan. 4th, 14th, and 20th, and Feb 4th; severely wounded (medal with clasp). Served in the Zulu war of 1879 and present in the engagement at Ulundi (mentioned in despatches). Served in the operations against Sekukuni in 1879 and was present at the storming of the stronghold (medal with clasp) Served in the Egyptian war of 1882 and was present at the battle of Tel el Kebir (medal with clasp and Khedive's star) He also served with the Burmese expedition of 1885-86 (medal with clasp) and with the Ashanti expedition under Sir Francis Scott in 1895-96 (mentioned in despatches, star). In the campaign on the north-west frontier of India under Sir William Lockhart in 1897-98 he served with the Mohmund field force (mentioned in despatches) and was afterwards principal medical officer of the 1st Division of the Tirah expeditionary force (mentioned in despatches, C.B., and medal with two clasps).

Surgeon-Lieutenant-Colonel Henry Frank Hensman, retired May, late 1st Life Guards.

Surgeon-Lieutenant Colonel Hensman served in the Umbeyla campaign on the north west frontier of India in 1863 with the Durbund field force.

Lieutenant Colonel (now local Colonel) Arthur Thomas Sloggett, R.A.M.C.

Lieutenant-Colonel A. T. Sloggett served with the Dongola expeditionary force under Sir H. H. Kitchener in 1896, including the engagement at Firket and the operations at Hafir (mentioned in despatches, promoted to be Surgeon Lieutenant-Colonel, 4th Class of Osmanieh, and Khedive's medal with two clasps). He served also in the Soudan campaign of 1898 as senior medical officer of the 1st Brigade British Division, and was present at the battle of Khartoum (dangerously wounded, mentioned in despatches, promoted to the higher grade of his rank, 3rd Class of the Medjidieh, clasp).

Lieutenant-Colonel (local Colonel) John Francis Williamson, R.A.M.C.

Lieutenant-Colonel J. F. Williamson served in the Afghan war of 1878-79, and was present in the engagement at Charasiah on Oct 6th, 1879, and in the operations round Cabul in December, 1879, including the investment of Sherpore; accompanied Sir Frederick Roberts in the march to Candahar, and was present at the battle of Candahar (mentioned in despatches, medal with three clasps, and bronze decoration). Served in the Egyptian war of 1882, and was present at the battle of Tel-el-Kebir (medal with clasp, and Khedive's star). Served with the Burmese expedition in 1887-88 (medal with clasp). He also served in the campaign on the north west frontier of India under Sir William Lockhart in 1897-98 with the Mohmund Field Force (mentioned in despatches), and afterwards with the Tirah expeditionary force in the Peshawar column and the 5th Brigade (medal with two clasps).

Lieutenant-Colonel (local Colonel) Percy Herbert Johnston, R.A.M.C.

Lieutenant-Colonel Johnston served in the Afghan war of 1879-80, and took part with the Zarmusht expedition, including the assault of Lawz (medal).

Major (now Lieutenant-Colonel) Walter George Augustus Bedford, R.A M.C., secretary to the Principal Medical Officer in South Africa.

Lieutenant-Colonel Bedford entered the service in 1881 and became Surgeon-Major in 1893.

Major George Washington Brazier-Creagh, R A.M.C.

Major Brazier-Creagh entered the service in 1881 and became Surgeon-Major in 1893.

Major Frederick Samuel Heuston, R.A.M C.

Major Heuston served with the Hazara expedition in 1888 in medical charge of the 2nd Battalion Northumberland Fusiliers (medal and clasp).

Surgeon-Major (now local Lieutenant-Colonel) Charles R. Kilkelly, Grenadier Guards.

Lieutenant-Colonel Kilkelly entered the service in 1885 and became Surgeon-Major in 1898.

Major William Rice Edwards, I.M.S.

Major Edwards entered the service in 1886 and was made Surgeon-Major in 1898

Major Henry Alfred Cummins, R.A.M.C.

Major Cummins served with the Sikkim expedition in 1888 (medal with clasp).

Surgeon-Lieutenant-Colonel E B. Hartley, V.C., C.M S.C.

Surgeon-Lieutenant-Colonel Hartley served in South Africa as principal medical officer in 1877-1881 (medal with clasp). He received the *Victoria Cross for rescuing under fire the wounded at* Morosi's Mountain on June 5th, 1879

Dr. A. A Scot Skirving (Yeomanry Hospital).
Mr. J. P. Bush (Princess Christian's Hospital).
Dr. D. Wallace (Edinburgh Hospital).
Mr. H. E. Clark (Scottish National Hospital).
Mr. A. A. Bowlby (Portland Hospital).
Dr. H. H. Tooth (Portland Hospital).
Dr. J. W. Washbourn (Yeomanry Hospital).

To be Companions of the Distinguished Service Order:—

Major (now Lieutenant-Colonel) Richard William Ford, R A M.C.

Major R. W. Ford served in the Egyptian war of 1882 (medal and Khedive's star).

Major (now Lieutenant-Colonel) Thomas Joseph O'Donnell, R.A M.C.

Major O'Donnell served in the Egyptian war of 1882 (medal and *Khedive's star) and served with the* Bechuanaland expedition in 1884-85 and in the operations in Zululand in 1888. He served with the Kimberley relief force and was present at the action at Magersfontein (mentioned *in despatches)*

Major Robert James Leech Fayle, R.A.M C.

Major Fayle entered the army in 1882 and was promoted to Surgeon-Major in 1894

Major William Watson *Pike*, R.A.M.C.

Major Pike entered the service in 1882 and reached the rank of Major in 1894

Captain Ernest Chester Anderson, R.A.M.C.

Captain Anderson entered the service in 1892 and became *Surgeon-Captain* in 1895.

Captain John Hay Campbell, R.A.M.C.

Captain Campbell entered the army in 1896 and was promoted to Captain in 1898.

Captain Percy John Probyn, R A.M.C.

Captain Probyn *entered* the army as Surgeon-Lieutenant in 1896 and was promoted to Captain in 1899.

Captain Arthur Winsmore Hooper, R.A M.C.

Captain Hooper entered the army in 1696 as Surgeon-Lieutenant and reached the rank of Captain in 1899.

Lieutenant John Joseph Whitworth Prescott, R.A.M.C.

Lieutenant Prescott was with the Ladysmith *relief force* and was present at the battle *of Colenso and in* the operations on the Tugela including the engagement of Vaal Krantz. Was present at the engagements at Monte Cristo and Pieter's Hill and the *relief of Ladysmith.*

Lieutenant Henry Edward Manning Douglas, V.C., R A.M C.

*Lieutenant Douglas was present at the engagement at Magersfontein in which he was severely wounded and won the Victoria Cross.

Major T. H. Fiaschi, New South Wales Army Medical Corps.

Captain A. T. Duka, Army Medical Corps, Queensland Defence Force.

Captain Duka distinguished *himself* at Elands River.

Surgeon-Lieutenant (temporary Captain) C. B. Keenan, Lord Strathcona's Corps

Surgeon-Captain R. O Perkins, Brabant's Horse.

Surgeon-Major F. A. Holmden, British South Africa Police.

Captain J. J. Brownlee, Cape Medical Bearer Corps.

Surgeon-Major W F. F. Davies, Imperial Light Horse.

Captain G. E. Heberden, medical officer, Kimberley Light Horse.

Surgeon-Major J A. J. Smith, Kimberley Regiment.

Major J. Hyslop, principal medical officer, Natal Volunteers.

The following are noted for promotion:—

ROYAL ARMY MEDICAL CORPS.

To be Colonels:—

Lieutenant-Colonel (local *Colonel*) W. B. Allin, principal medical officer of the Infantry Division in South Africa.

Colonel Allin served in the Afghan war *of 1878-80* (medal), with the *Nile* expedition in 1884-85, and had charge of the *field* hospital at Gakdul Wells (mentioned in despatches, promoted Surgeon-Major, medal with clasp and Khedive's star) *He also* served in the Isogai expedition of 1892.

Lieutenant-Colonel (local Colonel) W. L. Gubbins' Assistant Director of the Army Medical Service.

Colonel Gubbins served in the Afghan war of 1878-80 and took part with the Bazar Valley *expedition under Lieutenant-General* Maude in medical charge of the 5th Fusiliers and subsequently of the headquarters *staff*; also divisional sanitary officer and secretary to the principal medical officer. *He* was present with the expedition against the Mohmunds and *into the Hissarek Valley* (medal) *He also served* with the expedition to Burmah in 1886 (medal with clasp).

To be Lieutenant-Colonel under Article 362 of the Royal Warrant:—

Lieutenant-Colonel (local Colonel) A. Keogh.

To be Lieutenant-Colonels:—

Major W. Babtie, V C., C.M.G.

* Major Babtie served in the occupation of Crete 1897-98 as senior medical officer (C M G). *He served in South Africa with the Ladysmith* relief force and was present at the battle of Colenso, where he earned his V.C.

Major D. Bruce.

Major Bruce entered the service as surgeon in 1883 and was promoted *to surgeon-major in 1895.*

Major L. E. Anderson.

Major Anderson served with the Nile Expedition of 1884-85 and in the subsequent operations in the Eastern Soudan in 1885 (medal with two clasps and Khedive's star).

Major H. G. Hathaway.

Major Hathaway served with the Burmese expedition in 1885-89, and accompanied the Ruby Mine column to Mogoke; was present at the [illegible] Capta [illegible] nder [illegible] relief [illegible] itral [illegible] Malak [illegible] the [illegible] orth- [illegible] the [illegible] ilion [illegible] and [illegible] wounded in the South African [illegible]

To be Majors:—

Captain T. B. Beach.

Captain Beach entered the army as Surgeon-Captain in 1891.

Captain C. W. R. Healey.

Captain Healey entered the service in 1891.

To be Captains:—

Lieutenant W. H. S. Nickerson, V.C.

*Lieutenant Nickerson entered the Army in 1893. He gained the Victoria Cross in the present campaign.

Lieutenant E T. Inkson, V.C.

*Lieutenant Inkson entered the army in 1899. He also won the Victoria Cross in the present campaign.

Corporal A. O. Ralfe, Corporal W. L. Glasgow, and Private F. A. Farrell are also noted for promotion.

Sergeant-Major F. Crookes to be granted a bar to the Distinguished Conduct Medal already conferred upon him.

* The records of the brave and gallant actions for which these officers earned the Victoria Cross will be found in the pages *of* THE LANCET as follows:—Major Babtie, V.C, April 28th, 1900, p 1220; Lieutenant Inkson, V.C, Jan. 19th, 1901, p 200; Lieutenant Nickerson, V.C., Feb 16th, 1901, p 507, and Lieutenant Douglas, V.C, April 6th, 1901, p. 1038.

MENTIONED IN DESPATCHES.

ERRATUM.—Dr. H. H. Tooth's name was by error omitted from the list of names mentioned in Lord Roberts's despatch published in the *London Gazette*, page 2599. *After* "the Portland Hospital, under Mr. A. Bowlby, F.R.C.S.," the words "and Dr. H. H. Tooth" should be added.

MEDICAL NOTES IN NORTHERN WATERS BY A FRENCH NAVAL SURGEON.

Dr. Aurégan of the French warship *Ibis* gives a deplorable account in the *Archives de Médecine Navale* for February of the insanitary conditions under which his compatriots have to live who, to the number of close on 5000 persons, are engaged in the North Sea fishery. Throughout the winter months these unfortunate men fish for mackerel in the Channel and off the coast of Ireland, but early in May they steer for the north of Scotland in search of herrings and, following the *shoals* as far even as the Shetland Islands, gradually sail down the North Sea until about the month of October they arrive at the *embouchure* of the Thames. In nearly every one of the 300 vessels that are engaged in the trade there is only berthing accommodation for about one-half of the crews at a time, while owing to the lack of bedding the men, as a rule, turn in "all standing," *no matter whether* their clothing be wet or dry, and for the most part retaining their heavy boots. Under these circumstances the smells pervading the dark, damp, unventilated cabins are naturally sickening, and to make matters worse in this respect the occupants are said never to wash themselves during the whole of the time they remain at sea. In the second part of his report Dr. Aurégan describes *some of* the hospitals which he visited while cruising in the *Ibis*. Except in England, where similar defects are not apparent, he is of opinion that, generally speaking, the medical wards of these establishments are too large and also that in several other important respects the medical sections fail to fulfil the desiderata of modern nosocomial hygiene. Under existing conditions classification and isolation are nearly always most difficult of attainment. Dr. Aurégan's account of the British hospitals which he inspected is brief but interesting. "At Aberdeen," he says, "the Royal Infirmary, a fine hospital of 450 beds, although of recent construction, occupies but a relatively small space. It consists of three-storeyed buildings, it is true, but these are divided up into wards for at most 20 patients. What strikes the visitor on entrance is the scrupulous cleanliness which reigns everywhere. One feels that the rules of hygiene are observed with the strictest rigour, a trait which is common to all the establishments of this kind which we have visited in Scotland as well as in England." Speaking of Edinburgh, with its "superb school of medicine," laboratories, and numerous hospitals, Dr. Aurégan, with reference to the Royal Infirmary, says: "This hospital with its annexes occupies a superficies of about 12 acres. Of recent construction and built entirely of granite it comprises 15 pavilions, each containing two wards, one above the other, for 20 beds. These pavilions are united by covered passages and those destined for surgical cases are in communication with magnificent operation-halls wherein the latest improvements of surgical science have been collected" In conclusion our friendly critic expresses himself equally favourably with regard to "the other towns of lesser importance, such as Grimsby and Lowestoft." In each port he found a handsome hospital where the sick from the *Ibis* and her "annexes" were always treated with the utmost kindness "These establishments, although smaller and less luxurious than the foregoing, are nevertheless very elegant (*coquets*) and in them the rules of hygiene are always most religiously observed."

PARKES MEMORIAL PRIZE.

The Parkes memorial prize, consisting of 75 guineas and a bronze medal, is awarded every third year to the writer of the best essay on a subject connected with hygiene. The competition is open to the medical officers of the navy, army, and Indian services of executive rank on full pay, with the exception of the assistant professors of the Army Medical School during their term of office. The subject for the last competition was "Venereal Diseases in the British and Indian Armies, their Prevalence and Prevention." Surgeon-General McD. Cuffe, C B, A M.S., Colonel K. McLeod and Major R H. Firth, R.A.M C., acted as assessors and awarded the prize to the essay bearing the motto, "Quis quid peccat in eo punitur." The writer of the successful essay was Captain Howell, R.A.M.C.

Correspondence.

"Audi alteram partem."

SMALL-POX IN NOTTINGHAM AND ELSEWHERE.

To the Editors of THE LANCET.

SIRS,—Small-pox has recently been introduced into the Mormon headquarters in this city, apparently by letters or other fomites, from Salt Lake City.. The first of our cases *appears to have had a very mild attack* and slight rash about Feb. 1st; the second, also a very slight one, had a rash commencing about Feb 21st. The third and fourth were somewhat more severe than the preceding, but still very slight, and their rashes dated from about March 24th. The fifth, another extremely mild case, began to develop a rash on April 14th, at which date I first became aware of these facts and at which also the entire household were removed to our isolation hospital. The above patients' ages ranged from 22 to 33 years. Four of them are unvaccinated, and one was vaccinated in infancy. The only regular member of the household to escape infection altogether was a vaccinated male, aged 24, who was re-vaccinated in 1895. I regret to say that the outbreak has been the means of communicating small-pox to at least six other places between Liverpool and Leicester, though in single cases only, I believe, in each instance up to the present. The special cause of this general dissemination was a small Mormon conference held in Nottingham on March 24th, at which date the rashes of the third and fourth local cases were developing. I am, Sirs, yours faithfully,

PHILIP BOOBBYER.

Health Department, Guildhall, Nottingham,
April 24th, 1901.

THE MEDICAL PROFESSION AND THE FRIENDLY SOCIETIES.

To the Editors of THE LANCET.

SIRS,—As it was at my invitation that the representatives of the medical profession did me the honour on several occasions to meet the committee of the Friendly Societies' Conference at this office I ask your permission to offer a few observations on the present position of the question between them.

When Dr. Bruce, one of the Direct Representatives of the profession, suggested the formation of a joint Board of Conciliation the suggestion was felt to be a very happy one and it would be much to be regretted that it should fall through. I am therefore glad to observe that the Friendly Societies' Conference still expresses its anxiety to secure the appointment of a Conciliation Board for the settlement of disputes between friendly societies and their medical officers and has reappointed its committee to continue the negotiations. I was also glad to observe in Dr. Elliston's letter to the secretary of that conference the proposal that the Conciliation Board "shall be entirely unfettered in its deliberations and shall be allowed to try to find a remedy for every grievance of both sides" Unfortunately, however, as I venture to think, the letter proceeds to lay down what is called the "wage-limit" as a necessary preliminary to entering upon these deliberations and has been met by a declaration that it cannot be agreed to under any circumstances. Unless this attitude can be somewhat modified on both sides the Conciliation Board is not likely to be formed.

The real question is the proper remuneration of the medical man and the wage-limit is only a part of that question, and not, I think, so important a part as both sides seem to consider it. It has been quite pertinently asked, "Do the friendly societies ask for medical relief as a charity? or do they wish to sweat the medical profession? or are they willing to pay a fair price for the services rendered to them by it?" I know them well enough to answer the question without hesitation. They desire to pay a fair price for the services rendered to them. They are neither beggars nor sweaters. How is the fair price to be ascertained? The medical man is to say, taking the society as a whole, for what sum paid by every member, whether sick or well, he is willing to attend those who are sick. He fixes that price, not at the rate at which he attends upon the very poor, nor at the rate at which he attends upon the comparatively rich, but at the reasonable rate which will, on the whole, pay him for his services. If this remuneration were not collected for him by the friendly society he might, in some cases, fail to get it at all, for the obvious reason that a man may be able to pay a small yearly sum, but not able to pay a large doctor's bill. Now, how does the circumstance that after a time one or more of the members earns more than £120 a year, which is the proposed wage-limit, affect this contract? It can only injure the medical man if that particular member happens to fall ill and if the difference between the remuneration that member would have to pay as a private patient and that upon which the medical man estimates his claim to remuneration from the friendly society is greater than the amount the medical man gains by receiving remuneration from the friendly society in cases where he would have got none at all. In other words, the contract between the medical man and the society is based on an average, and if one patient is above the average there are others who are below it. If the loss to the medical man is greater than the gain, all he has to do is to revise his terms, not necessarily to exclude from the average any particular cases It is at that point that the operation of the Conciliation Board would be beneficial.

The constitution of a friendly society is essentially democratic. All join for the same benefit and pay according to their ages the same contribution. They do not consider anybody too good for them and do not care to be asked to exclude a member merely because he is rich. While they know there is much in the kindly services of the medical man that no money can purchase they are willing to pay such fair professional remuneration as on the average is found to be sufficient to retain those services. I venture, therefore, as an independent onlooker, to suggest to Skill and to Thrift, the two parties to this dispute, equally admirable and worthy of respect, whether the one need insist on absolute exclusion of a member by the wage-limit test, and whether the other need insist on the absolute exclusion of the wage limit test from consideration Conceding these points, I think they might again approach each other and, I trust, with good result

I am, Sirs, your faithfully,
E W. BRABROOK.

Registry of Friendly Societies' Central Office,
Abingdon-street, S W., April 22nd, 1901

"LEGISLATION AGAINST NATIONAL INTEMPERANCE."

To the Editors of THE LANCET.

SIRS,—Dr Archdall Reid and I, like the *theologians*, not only come to different general conclusions from our common text-book, but we do not even agree as to its facts Rowntree and Sherwell state *explicitly that* "the total *per capita* consumption of absolute alcohol (in spirits, wine, *beer, &c*) *in Norway*" *in 1833* was "estimated" at *8 5 litres*, in 1843 at 5 5; in the quinquenniad 1851–55 the "actual" consumption was 3 9, in *1861–65* it was 2 7, in 1871–75 it was 3 6, in 1881–85 it was 2 4, in 1891–95 it was 2 6, and in 1894–98 (the latest returns) it was 2 4 How "drunkenness has greatly increased *in Norway of late years*" *on* a greatly diminished quantity of alcohol passes my comprehension. *The arrests for drunkenness form* a most fallacious basis of conclusion. I know a Scotch county in which *there* are *no* arrests for drunkenness, but I wish I could state that there is *no alcoholic excess there.* In a country whose authorities are keen to put down drunkenness, as *is* the case in *Norway now*, a few habitual inebriates each arrested *every* week will soon run up the arrests to *5 8 per 1000 inhabitants* in any of its cities I surely think that Dr. Reid will not deny that this evidence as adduced in Rowntree and Sherwell does as a whole fairly prove that recent *legislation in* Norway *has* diminished drunkenness and that in consequence the morals and the health *of the people there have improved*

I have just re read Dr. Archdall Reid's chapters on alcohol *in* "*The Present Evolution* in Man" with increased interest and undiminished admiration of *his sternly* logical mind But I am far from satisfied that he fully proves his case and that no other hypothesis than his will explain the facts I, and many others better qualified to judge *than* I am, absolutely dispute *his* cardinal theory "that the craving for alcohol, like sexual love, is an *instinct* not an acquired trait" We think his analogy is unscientific and his conclusi*ons based on it* fallacious, but we admired his ingenuity of mind, even when his theory led him *to the logical abysses* of "alcoholic retrogression," and to the proposition that "racial abstinence from *alcohol must have* for ultimate result only excessive racial indulgence in the poison" *Dr Reid's desire* to benefit *the race* is no doubt as great as that of any other thoughtful man. His whole *practical remedies* for the direful effects of excessive alcohol on mankind are thus summed up: "We *must either permit* alcoholic selection to run its level course or we must assist it by artificial *selection* and *so prevent much* of the misery by weeding out the obviously unfit—either by forbidding marriage to drunken *individuals*, or in the married by preventing the procreation of children by separating the *parents or* such other means as *science* may devise" He fully admits the bad effects *of* alcohol in excess *on the present* generation of men in health and morals. But because he is so *down on* the "diminution" *of the* "alcoholic supply," on "total abstinence, local veto, the Gothenburg *system*, &c.," as *measures that* "will—must—result in the aggravations of the craving for that *state* of mind which *indulgence* in alcohol induces," I and many *more* consider his alcoholic *theory* dangerous We also *think* his proposed remedies impracticable and *insufficient*. I cannot see *why a scientific* logician like Dr Reid should resent the logical outcome of his theory, *which* is certainly this: "*Alcohol* craving is a universal instinct; its only cure is alcoholic evolution; *therefore* let *us permit* alcoholic selection to run its cruel course"

Dr. Laing Gordon in his letter exhibits more zeal than discretion in defence of his master and more assurance than courtesy in his methods of controversy.

I am, Sirs, yours faithfully,
T S. CLOUSTON.

Edinburgh, April 22nd, 1901

To the Editors of THE LANCET.

SIRS,—I have done Dr Archdall Reid *the justice of reading* most of, if not all, his letters and papers on this alcohol and heredity question, but I am afraid I have not yet grasped his meaning. At *one time Dr.* Reid appears to me to deify alcohol and at another time he seems to recognise that there is a drink evil. Again, *his writings leave the impression* that he feels that alcohol has not had fair play, because if it had had fair play it would regenerate the human race by weeding *out* the weaklings and leave behind only those proof against its evil influences. The next time, *Dr. Reid varies his assertions by stating* that for 1000 years the old methods have been tried and found wanting. This practically means that King Alcohol has had absolute sway *for the space of* 1000 years, a sufficiently long one, one would have thought, for effecting the weeding-out and *regenerating* processes. In one communication Dr Reid tells us the peoples *whose experience* of alcohol is the longest and most intimate are those who are the least susceptible to its evil influence This runs counter to the history of the human *race*. All *peoples have known alcohol in some* shape or form from their remotest antiquity. Even such peoples as *the ancient Aztecs* and Peruvians, who had the beverages cocoa and teas of various kinds, had also alcoholic beverages. On the point relating to resistance, the *Germans were great drinkers so far* back as the days of Tacitus. Tacitus tells us that they drank strong beer and *often passed* an entire day and night in drinking, yet this long acquaintance with alcohol has not rendered them immune to its subtle influence, for only within the last few months the Socialists of Germany have become *so* alarmed at the ravages of alcohol that they petitioned the Legislature to take the *question* up Switzerland, like Germany, has had a fair experience of alcohol in one shape or another, and recently the Socialists of the various cantons have also presented petitions *fortified* by hard *facts telling of* the havoc of alcohol among the workers of their land. France has *long* had *her wines* and her people have not become immune to alcohol Surely Dr. Reid cannot be ignorant of the growing drink evil in fair France nor of the repeated pathetic *appeals to the Legislature* presented by the learned Academy of Medicine of Paris *crying for reform* because *of the evil* which alcohol is working among the people of France Spain, too, the land of *wines, shows* an alarming increase of drinking among her people. Now, according to Dr. Reid's theory, these *peoples* should all be immune to alcohol

Dr Reid's persistence is admirable but worthy of a better cause His may be described as the philosophy of pessimism *of the Schopenhauer* type with the humour left out No old Calvinistic divine more determinedly *preached the salvation* of the few and the damnation of the many than does Dr. Reid. But *the Calvinistic divine believed* in the awfulness of sin, whereas Dr Reid teaches the benignity of evil as seen *in the ravages of alcohol* Now suppose he were to apply the same process of reasoning to the small pox evil *which* he so trenchantly employs with regard to alcohol he would use the language of Epictetus and *the Stoics and say to the* citizens of Glasgow: "The outbreak of small pox in your midst is nothing. *It is salutary and it will* weed out the weaklings; then why do you try to stop its progress? Rather rejoice in *the visitation*" What would the citizens of Glasgow think of such advice? I am pretty sure the medical officer at least would imagine that Dr Reid had never heard of Francis Bacon and the experimental philosophy and that he had never heard of sanitation and vaccination We try to protect the *people by* sanitation and vaccination Likewise those of us who try to save the people from the allurem*ents of* alcohol are Baconians and we hope and believe our efforts will meet with success Personally I am *willing to acknowledge* the purity of Dr. Reid's motives. At the same time I implore him to spare *himself the unceasing* energy with which he attacks the labours of earnest temperance reformers His *attitude is* productive of no good and if he honestly feels he cannot speak words of comfort and encouragement then silence is the better part.

I am, Sirs, yours faithfully,
St. George's-terrace, Leeds, April 22nd, 1901. GORDON SHARP.

"THE TEACHING OF ANÆSTHETICS."

To the Editors of THE LANCET.

SIRS,—It will probably be a couple of months before we can get Lieutenant-Colonel Lawrie's answer to Dr. Hewitt's letter in THE LANCET of April 20th, p. 1066. But as I came across yesterday, by a curious coincidence, an instruction concerning the administration of chloroform given by a foreign surgeon which supports Lieutenant Colonel Lawrie in a statement which has drawn down on him Dr. Hewitt's high scorn I beg that you will note it next week. Dr. Hewitt's quotation from Lieutenant Colonel Lawrie is: "The way to make a young child breathe regularly is to make it cry by holding the chloroform cap close down over its mouth and nose until it becomes unconscious and quiet," on which he remarks: "It is, I think, unnecessary to further criticise the above doctrines; they speak for themselves." The quotation from Léjars' "Chirurgie d'Urgence," which you recently criticised most favourably, is: "Il y a une autre méthode qui brusque les choses: la compresse, imprégnée de chloroforme, est appliquée sur la bouche et le nez et tout de suite hermétiquement fermée. Cela réussit chez l'enfant, et chez l'adulte entre des mains exercées." He goes on to say that he prefers persuasion, but that he has spoken as above shows, I think, that Lieutenant-Colonel Lawrie's views are more widely held than Dr. Hewitt supposes. If Dr Hewitt wishes to convert them he will do so more effectually by argument than by scorn.

I am, Sirs, yours faithfully,
April 21st, 1901. W. E. HOME.

"THE MANAGEMENT OF HOME MILITARY HOSPITALS."

To the Editors of THE LANCET.

SIRS,—Having read the article under this heading by Surgeon-Captain Pugin Thornton in THE LANCET of March 30th, p. 958, I notice that he has omitted to state what becomes of the soldier when sick *on leave* if not in the vicinity of a military hospital. Such cases are constantly cropping up in this town, and it is interesting to compare the neglect of arrangements made by the military authorities with the excellent ones in force in the navy. In the case of the soldier he is probably on furlough, staying with his family or friends. He falls ill and requires medical assistance; he is too ill to be sent to a military hospital and has therefore to be treated at home. He has to find board and lodging for himself; special diets or medical comforts, if demanded by the necessity of the case, also fall upon him. If his medical attendant gets paid for the services rendered at a critical and urgent time the soldier has to pay for them himself. But, as a matter of fact, it more often happens that the soldier requests the medical man to forward the account at the end of the attendance to his commanding officer, and the medical man, innocent of guile, having found that his bi-weekly certificates are accepted by the commanding officer, finds it a very different thing when he sends to the commanding officer the account of his fees at the end of the attendance

In the many cases that have come under my own observation no notice whatever has been taken of these accounts when duly sent in, and there appears to be no way for recovery of the fees for the attendance. In some few cases the soldier has said at the beginning that he is himself responsible for the attendance, and has done his best honestly to meet it In these cases I consider it a great tax that a soldier on leave should be obliged to pay for medical attendance just because he happens to be on furlough away from a military hospital. In one case it is unfair to the doctor, in the other unfair to the soldier.

Now let us turn to what obtains in the sister service. The navy is mostly recruited from seaport towns, and all round the coast of the British Isles there are civil surgeons appointed by the Admiralty to the medical charge of the coastguard, and it is a part of the duty of these surgeons to attend any officer or man of His Majesty's Navy who may fall sick when on leave. The surgeon is empowered to place the patient in quarters; to pay for his board and lodging, nursing, and medical comforts, if necessary; and at stated times to send in his account to the Admiralty.

I am, Sirs, yours faithfully,
CHARLES COTTON, F.R.C.P. Edin.
Ramsgate, April 20th, 1901.

"INTERNATIONAL CATALOGUE OF SCIENTIFIC LITERATURE."

To the Editors of THE LANCET.

SIRS,—Will you allow me to add a note to the letter which appeared in your issue of March 9th, p 736? In the list there given the section of anthropology is not mentioned Scattered among papers of purely medical importance, however, appears a considerable number of articles bearing on anthropological questions which it will be only too easy to overlook, especially if the journals or books are not readily accessible May I ask authors to send separate copies of their publications, or in default of that, a note of place and date of publication and of the main contents of the paper, to the Anthropological Institute, 3, Hanover-square, London, W.

I am, Sirs, yours faithfully,
Hanover-square, W. NORTHCOTE W. THOMAS.

"THE X RAYS IN SOUTH AFRICA."

To the Editors of THE LANCET.

SIRS,—In a letter on this subject which you were good enough to publish in THE LANCET of Jan. 19th last, p 212, I stated that the apparatus sent out by the War Office for use in the military hospitals in South Africa was that known as the "army pattern made by Apps and Newton." Mr. Harry W. Cox, of Cursitor-street, London, E.C., by order from the War Office, sent out three sets of apparatus of his own manufacture and has asked me to correct my former statement to this effect. This request, if you will grant me space to do so, I shall be glad of an opportunity of complying with.

I am, Sirs, yours faithfully,
W. F. STEVENSON, Colonel, R.A.M.C.
Netley, April 22nd, 1901

"THE STATISTICS OF GASTRIC ULCER, WITH SPECIAL REFERENCE TO GASTRIC HÆMORRHAGE, ITS FREQUENCY AND FATALITY."

To the Editors of THE LANCET.

SIRS,—I hardly think I need add anything to my letter in THE LANCET of March 30th, p. 969. Let me, however, thank Mr. Mayo Robson for the references which he has published, and let me say that those references entirely confirm my statement—viz., that the mortality percentages from hæmorrhage in gastric ulcer, given by the authorities which Mr. Mayo Robson quoted in his address, refer not merely to those cases of gastric ulcer in which hæmorrhage occurs, but to *all* cases of gastric ulcer.

Let me further say that, so far as I see, it is impossible to reconcile the estimate which Mr. Mayo Robson has drawn from those figures—viz., that 7 per cent of cases of hæmatemesis from ulcer, or 3½ per cent. of all persons suffering from ulcer, die as the result of bleeding—with those figures—viz., Muller, 11 per cent.; Welch, 3 to 5 per cent.; Brinton, 5 per cent.; Debove, 5 per cent.; Steiner, 6 36 per cent.; Lebert, 3 per cent; Dreschfeld, 3½ per cent.; and Rodman, 8 per cent.—unless, first, it be granted (and this is, as I have shown, an erroneous reading of the figures) that those figures refer to the mortality percentages in those cases of gastric ulcer in which hæmorrhage occurs (which Mr. Mayo Robson estimates at 50 per cent.); and, secondly, unless the mean (7 per cent.) of the extremes (11 per cent and 3 per cent), and not the average, of those figures is taken. The average of the figures is just about 5½ per cent. Let me also add that the mortality percentages of Lebert and Leube (Rodman), which Mr. Mayo Robson quotes, do not, according to my reading, represent the figures of those authorities (see *addendum*).

I hope one result of this discussion will be finally to "knock out of time" Brinton's estimate—that the total mortality in cases of gastric ulcer is 50 per cent. It does not seem to have occurred to Mr. Mayo Robson that he has taken up a singularly illogical, and, in fact, untenable, position in upholding Brinton, while, at the same time, he "heartily concurs" with my argument that, since the cicatrices of small and superficial ulcers are often missed, the ratio of three cicatrices to one open ulcer (which is the ratio commonly accepted by modern authorities) is probably an under estimate Brinton's estimate is essentially based on the supposition (which Brinton believed to be a fact) that the ratio of cicatrices to open ulcers is as one to one Hence he (Brinton) concluded that only 50 per cent. of gastric ulcers undergo a spontaneous cure; in other words, that the total mortality (direct and indirect) in cases of gastric ulcer is 50 per cent Now, if it be granted that the ratio of cicatrices to open ulcers is at least three to one, it necessarily follows that Brinton's estimate is extravagantly erroneous.

I have no wish to prolong the discussion, which, though of very great practical importance (since the statistics of gastric ulcer necessarily form one of the factors on which physicians and surgeons will have to determine the operative question), is, after all, merely preliminary to the main question—viz, whether operative interference is advisable for the treatment of hæmorrhage in cases of gastric ulcer, and, if so, in what cases it should be undertaken *On this, the main question, I have a good deal more to say*

I am, Sirs, yours faithfully,

Edinburgh, April 18th, 1901 BYROM BRAMWELL

ADDENDUM.

[illegible] from hæmor- [illegible] "In 120 [illegible] 14 were [illegible] gastric ulcer [illegible] incorrectly—[illegible] ulcers and 37 cases of hæmorrhage, instead of 120 ulcers and 35 cases of hæmorrhage, and Mr Mayo Robson quotes Savariaud)

Welch, from 3 to 5 per cent (Pepper's System of Medicine, vol. ii., p. 602) —"Death from hæmorrhage occurs probably in from 3 to 5 per cent. of the cases of gastric ulcer In 270 cases of open ulcer from the statistics of Jaksch, Dittrich, Eppinger, Starcke, Chambers, Habershon, Moore, and Lebert, I find 27 deaths by hæmorrhage. Reckoning three cicatrices to one ulcer this would give a percentage of 3½"

Brinton, 5 per cent. (Diseases of the Stomach, p. 153).—"In 3 5 per cent. of the cases of gastric ulcer death is due to hæmorrhage.'

Debove, 6 per cent. (Ulcère de l'Estomac, p. 101)—Debove and Renault give no estimate of their own, but merely quote Brinton's estimate, giving it at 5 per cent. and not, as Brinton gives it, at 3 to 5 per cent

Steiner, 6 36 per cent.—There is, so far as I see, no mention of the mortality from hæmorrhage in the abstract of Steiner's pathological observations in Virchow and Hirsch's Jahresbericht, 1863 p 125—the reference which Mr Mayo Robson gives The mortality is given in Steiner's Dissertation, "Das Chronische Corrosive Magengeschwür." Berlin, 1868 (I have not been able to consult the original) quoted (as Mr Mayo Robson points out) by Leube in Ziemssen's Cyclopædia, vol vii., p 217: "In 110 cases of gastric ulcer fatal hæmorrhage occurred in seven"; giving a mortality of 6 36 per cent. in all ulcers

Lebert, 3 per cent. (Die Krankheiten des Magens, 1878, pp. 237 and 238).—If I read Lebert rightly, he does not make the mortality from hæmorrhage 3 per cent., but 1 3 per cent. He observed 300 cases of gastric ulcer—252 in the clinics and polyclinics of Zürich and Breslau, and 48 in the Paris hospitals and in private practice. Of these 300 cases of gastric ulcer 33 or 11 per cent., died, and of the 33 fatal cases four, or *1·3 per cent, of the 300 cases of ulcer died from hæmorrhage.* Mr Mayo Robson is, I think, mistaken in saying that Lebert's figures on this point (the mortality from hæmorrhage) are quoted by Dreschfeld in Clifford Allbutt's System of Medicine, vol. iii, p. 541 They are, however, quoted—and I think, erroneously quoted—by Savariaud (L'Ulcère Hémorrhagique de l Estomac, 1898, p 51) as follows: "Lebert, who observed 252 cases, found 3 per cent. died from hæmorrhage." Lebert's statement, according to my reading, is given above.

Dreschfeld. 3½ per cent. (Clifford Allbutt's System of Medicine, vol. iii., p. 541) —"Death from hæmorrhage is said to occur in about 3 per cent."

Rodman, 8 per cent. (Journal of the American Association, June 16th, 1900, p 1509) —"Hæmatemesis occurs in at least 50 per cent. of all cases of gastric ulcer, and many authorities estimate it as present in 80 per cent. It is, too, fatal in 8 per cent. of the cases in which it occurs, according to the conservative estimate of Leube (*Archiv für Klinische Chirurgie*, 1897), and we cannot question that it is indirectly fatal in a much greater number of cases by anæmia and its remote consequences."

Rodman seems to have misread Leube, for, according to my reading, Leube's 8 per cent. refers *not* to the fatality of hæmorrhage in gastric ulcer, but to the *total* fatality of gastric ulcer Leube (*Archiv für Klinische Chirurgie*, 1897, p 73) says: "Ich habe berechnet, *dass von* 195 Patienten, die vor oder *nach der Behandlung* Magenblutungen *zeigten 8*, also etwas über 4 per cent. mit Tod abgingen, während nach den gewöhnlichen Rechnungen die Mortalitätszahl beim Ulcus 13 per cent. und noch mehr beträgt." Or, as I translate it: "I have calculated that in 195 patients in whom bleeding from the stomach occurred, either before or after treatment, eight, or about 4 per cent., died, whereas according to the usually accepted estimates, the mortality *from* gastric ulcer is 13 per cent. or more." Leube then goes on to give the details of his own cases He observed 656 cases 63 in private practice and 493 in hospital practice. Of these 656 cases of gastric ulcer 12 died, making the total mortality 2 15 per cent, and of the 12 fatal cases six died from hæmorrhage, *giving a mortality from hæmorrhage of 1 per cent.* He contrasts his total mortality of 2 15 per cent, and his mortality from hæmorrhage of 1 per cent., with the usually accepted estimates, based on old and recent statistics, which give the total mortality from gastric ulcer at 13 per cent or more and [illegible] Thus, according to my [illegible] ees Mr Mayo Robson [illegible] f it were Rodman's [illegible] of the way in which [illegible] ric ulcer are quoted, requoted, and misquoted

---

[1] The figure which immediately follows the author's name (Müller, Welch &c.) is Mr Mayo Robson's quotation

"NEUTRAL RED AS A MEANS OF DETECTING THE PRESENCE OF THE BACILLUS COLI COMMUNIS IN WATER-SUPPLIES."

To the Editors of THE LANCET.

SIRS,—A note bearing the above title was published in THE LANCET of April 13th, p 1079, and as I was out of London during the week previous to the insertion of this note I did not have an opportunity of correcting the proof which was submitted to me As one or two points appear to me to be far from clear the following may be useful. Nutrient media, especially peptone bouillon, containing neutral red, form a delicate test for the presence of bacillus coli communis Thus one cubic centimetre of unsterilised tap water containing from 10 to 20 bacilli coli per cubic centimetre, mixed with neutral red bouillon and incubated at 37° C, will give a marked reaction within 24 hours If, however, the bacilli only number from three to four per cubic centimetre the reaction is usually delayed until the second day. By noting such differences in the time required to produce the reaction a fairly accurate idea of the proportions of bacillus coli communis present in a water can be gained. Dr. Makgill (late of New Zealand) has been making a number of experiments in regard to this question and intends to publish soon the results of his investigations more in detail.

I am, Sirs, yours faithfully,

London Hospital, E., April 17th, 1901 WILLIAM HUNTER

WIDE-BORE CLOVER'S INHALERS.

To the Editors of THE LANCET.

SIRS,—In Dr. Frederic Hewitt's lecture published in THE LANCET of March 30th, p 916, I am interested to see an account of an improved Clover's ether inhaler with a wide bore or calibre, and also that Dr Hewitt finds that the "principal difference" thereof "is that stertor and cyanosis are lessened and that the patient passes smoothly with little or no respiratory derangement from the anæsthesia of nitrous oxide to that of ether" Dr. Hewitt states that he has used this apparatus for upwards of a year in private practice.

In April, 1898, you published a description of an improved Clover's inhaler designed by me and made by Messrs. Mayer and Meltzer At the same time, by my instructions, Messrs Mayer and Meltzer made for me a *wide bore* Clover's inhaler on the same principles save for the introduction of the wider bore I have used this wide bore inhaler exclusively since February, 1898, with every satisfaction, and from three years' experience can fully endorse Dr. Hewitt's remarks as to the quietness of breathing and ease with which patients pass from gas to ether anæsthesia The difference in ease of breathing with the wide- and narrow-bore Clover's inhalers respectively is strikingly demonstrated by breathing through one and then immediately substituting the other

I have no doubt that Dr Hewitt's explanation that with the narrow bore inhalers a negative pressure is produced within the upper air-tract is the correct one There is also a corresponding, though reversed, feeling of effort during expiration with the narrow-bore inhalers I think that the late Mr. Clover, notwithstanding his ingenuity, must have forgotten in designing his smaller inhaler that the central tube, roughly about the area in section of the human trachea, has only half this area available for respiration, by reason of the dividing septum Any inhaler on Clover's pattern, to allow of full ease in respiration must be made with a central tube of an area in section equal to double that of the trachea, thus allowing for an area, in section equal to that of the trachea, on each side of the septum dividing the central tube. It was on this principle that I designed my wide-bore improved Clover's inhaler more than three years ago.

I am, Sirs, yours faithfully,
Bath, April 16th. T. WILSON SMITH, M.D. Lond.

"A WATER COMPANY DIRECTOR ON CISTERNS."

To the Editors of THE LANCET.

SIRS,—I thank you for your courtesy in sending me THE LANCET of 20th inst. with the note on the *Times* report of my remarks at the general meeting of the East London Waterworks Company, necessarily much condensed. I had in view the statements made to me by Mr. H. Mansfield Robinson at one of the sittings of the Local Government Board inquiry on the proposed regulations as to the dirty state of many cisterns in the poorer parts of Shoreditch and the contaminations discovered in them. Where this is the case I think you will support the view that if the authorities are powerless to insist on proper cisterns and their being cleansed the water for drinking purposes should be drawn from a tap on the rising main.

The suffering unhappily experienced in East London during the drought was mainly due to insufficient supply for cleansing and general purposes and would have been greatly mitigated had there been even a small cistern in every house.

I am, Sirs, yours faithfully,
Tunbridge Wells, April 21st, 1901. F. TENDRON.

"THE TRAFFIC IN OLD HORSES."

To the Editors of THE LANCET.

SIRS,—I have read in your issue of April 13th, p. 1095, an annotation entitled "The Traffic in Old Horses," in the course of which the writer observes: "We have not, however, seen reported a single case where punishment has been inflicted under the Diseases of Animals Act and the Order of the Board of Agriculture, and we should be glad to know why magistrates and others do not use the powers to which they are entitled." Allow me to point out that the first two lines of your annotation furnish the answer to your inquiry. Our officers not being allowed on the wharves stop the horses *en route* to the docks, and, as you have shown, obtain convictions for travelling such horses when lame or unfit—convictions occurring almost daily; thus the action of the society prevents the cruelty of transporting such animals to continental cities.

I am, Sirs, yours faithfully,
JOHN COLAM,
Secretary to the Royal Society for the Prevention of Cruelty to Animals.
Jermyn street, S W., April 17th, 1901.

CIVIL SURGEONS IN SOUTH AFRICA.

To the Editors of THE LANCET.

SIRS,—A desire has been generally expressed by men recently serving as civil surgeons in South Africa to hold a dinner. Derby Day, Wednesday, June 5th, the anniversary of the occupation of Pretoria, is suggested for the purpose. It is proposed to include all civilian medical men, whether attached to the Royal Army Medical Corps or to private hospitals. Sir W MacCormac has consented to preside and the following surgeons have already expressed their intention of being present: Mr. Makins, Professor Chiene, Mr. Watson Cheyne, Mr. Fripp, and Sir William Thomson.

The following provisional committee has been formed:—Mr. Anthony A. Bowloy (chairman of committee), Mr. C. S. Wallace (St. Thomas's), Dr. E A. Houseman (St. George's), Dr. A. Conan Doyle (Edinburgh), Dr. J. F. R. Gairdner (Glasgow and Leeds), and Mr. E. L. Hunt (Dublin).

We shall be glad to receive suggestions at the address given below, and we hope to publish details at a later date.

We remain, Sirs, yours faithfully,
C. GORDON WATSON (St. Bart.'s),
FRANCIS E. FREMANTLE (Guy's),
Acting Secretaries.
39, Moore-street, Lennox-gardens, S W.

"BICYCLING IN LONDON."

To the Editors of THE LANCET.

SIRS,—As a lady cyclist who is accustomed to ride in almost every part of the metropolis I cannot refrain from protesting against what appears to me the somewhat exaggerated view of the dangers of bicycling in London expressed in an annotation on that subject in THE LANCET of April 20th, p. 1154. Contrary to the opinion of the author of that article I find that one of the great advantages of bicycling in London is the freedom from nerve wear and tear it affords as compared with some other methods of locomotion. One avoids the worry of catching or missing omnibuses and trains, the irritation often produced by the dilatory progress of these means of transport, the anxiety that one will be late for one's appointment. Driving in a hansom is, in my experience, frequently a succession of small nerve shocks. What with curbstones which are grazed, absent-minded pedestrians who appear to escape as by a miracle being run over, horses that flounder and threaten to fall, one's nerves are often kept in a state of tension from which the practised cyclist is wholly free. When cycling the speed is in one's own hands. What one loses in crowded roads can be made up for in quieter parts One feels absolute control over one's machine, a control more complete and more rapidly exercised than that over any horse. There is enough muscular exertion to produce a feeling of pleasant exhilaration; just enough skill and alertness are called for to give brain and eye healthy exercise.

Whether bicycling in London is dangerous or not depends very largely on the cyclist. The crowded thoroughfares of the metropolis are far from being a sort of pandemonium, as suggested by the article referred to; the traffic is perfectly regulated, every horse is well under control. So long as the cyclist keeps his place he is no source of danger either to himself or others. The cyclist who courts danger and annoys drivers is he who presumes on the superior agility and speed of his machine as compared with other vehicles and darts through the traffic, dodging horses' heads on one side and shaving wheels on the other. It is often said that ladies are among the most reckless riders in London streets, but this, I think, is wholly untrue. Incompetent riders and nervous riders one sees, neither of whom are fit to cycle in crowded thoroughfares, but the foolhardy expert is almost invariably of the opposite sex. It often makes one shiver to watch cyclists, newspaper carriers especially, who dash through the traffic over greasy roads as if side slips were non-existent.

The best way, I think, for a lady to learn to ride safely in traffic is to make a point of dismounting and walking whenever the traffic or condition of the road makes her feel the least nervous. She will gradually find she dismounts less and less frequently and gains confidence while avoiding the chance of getting into tight places. Personally I feel far happier on a bicycle at certain crossings—Trafalgar-square, for instance—than I do on my feet. I do not advocate riding in muddy weather, but I believe that it is far more possible than is generally supposed for the cautious rider to ride safely on greasy roads if he bears constantly in mind the possibility of a side slip and acts accordingly.

I am, Sirs, yours faithfully,
April 22nd, 1901. M.D. LOND.

⁂ "At about 9.45 this morning a young lady, who was cycling along the Holloway-road, slipped, and an omnibus following passed over her. She was removed to the Great Northern Hospital, but expired before arrival."—(*Evening Standard*, Tuesday, April 23rd, 1901)—ED. L.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Water-supply of Bombay City and other Indian Cities—The Utilisation of Garbage by Municipalities—Features of the present Plague Mortality.—The Distribution of Prizes by the Gaekwar of Baroda.

THE water-supply of Bombay city from the Tausa, Vehar, and Tulsi lakes has justly been a matter of pride to the municipality for many years and I am glad to see by a recent analysis by one of the health officers that it maintains its purity. It will be remembered that last year during the autumn some suspicion was cast on the water supply and vibrios in abundance were found in the water. At the same time a marked increase in the albuminoid ammonia was discoverable which was attributed to algoid growth The following, however, is the recent analysis:—

Tausa Water.—Total solids, 8 grains per gallon; chlorine, 0·3 grain

[illegible] 0·002 part per 1,000,000 [illegible]minoid, 0 09
[illegible] 1 2 grains
[illegible]oid, 0 0[illegible]
[illegible] 1 2 grains
[illegible]inoid, 0·072

The available daily supply is very large. A recent return shows that Allahabad uses about 1,500,000 gallons a day at a cost of one and a half annas per 1000 gallons, Agra about the same daily supply at one and seven-twelfth annas per 1000 gallons, Lucknow rather more than 1,000,000 gallons at two and one-twelfth annas, and Benares two and two-third million gallons a day at two and one-third annas. Meerut uses well water which is very expensive, and Mussoorie has a notoriously inadequate supply. Attention has already been drawn to the increasing death rate of these cities and the census returns show but a small increase in the population.

The conservancy of Calcutta has always been a matter of difficulty as the amount of refuse to be carted away daily is enormous. The greater part is taken outside the town and deposited in what is known as the "salt lakes," but a portion has been burnt in two Harrington incinerators. It is contemplated to establish more of these works as they will effect a considerable saving on the annual cost of removing garbage. The inventor claims that a boiler attached to this incinerator would maintain sufficient steam to work the machinery for lighting Calcutta with electricity.

Notwithstanding the thousands of cases of plague which have occurred in Calcutta I understand that there has been only one victim amongst Europeans. This was Major Evans, I.M S., who was thought to have contracted the disease while making a post-mortem examination. This week the house surgeon of the Ezra Hospital has died from plague; he was a native of India. The plague mortality throughout India is still enormous, although there has been a slight decline during the past week from 11,509 to 11,480 In the corresponding week last year the plague deaths numbered 5196 The disease for the moment is stationary in the Bengal districts and in Calcutta, and there is a decrease in the Bombay Presidency. In Benares city, however, the outbreak has become severe and over 100 deaths have been recorded in one day. It is still raging in Karachi and the total of cases and deaths in that city since Jan. 26th gives the mortality at 75 per cent In Calcutta the total of cases and deaths since Jan 1st gives a mortality of 84 per cent. As the excess mortality of the city is nearly all accounted for by the plague deaths it probably means that a large number of non-fatal cases do not come before the authorities. At the present time about 1000 deaths from plague are occurring each week in Calcutta, but there appears to be some sign of the plague mortality decreasing. A coincident minor outbreak of small-pox has been existent which has helped to swell the lists of general mortality. In Bombay city the outbreak is declining, but 705 deaths from plague were registered last week. The general mortality was 1716 against 1949 in the previous week—a rate of over 115 per 1000 per annum. The excess mortality is apparently due to plague because there is no other fatal epidemic disease present.

The Grant Medical College, Bombay, was fortunate in obtaining the presence of the Gaekwar of Baroda at the recent distribution of prizes. The Indian prince made a very excellent speech and referred to the advantages of a university education, the march of science, particularly with regard to medicine, the need of India for scientific education, and the importance of hygiene. He also touched upon the desirability of investigating Indian medicines and upon medical colleges in India. His Highness was very enthusiastically received and his address will doubtless prove of great value to the college. It was, however, more than an appeal to students, it was a valuable lesson to the whole native population of India. The stimulus of such an address must be far reaching, not only from its intrinsic merits, but from the great influence which the Prince possesses.

April 6th.

HEALTH OF KEYNSHAM.—Mr. J. O. Heaven in his annual report as medical officer of health of the Keynsham Rural District states that the estimated population in 1900 was 7542. The death-rate, including the deaths of 10 visitors, corresponded to a rate of 15 9 per 1000. The birth-rate was 25 3 per 1000

THE INTERNATIONAL ASSOCIATION OF THE MEDICAL PRESS.

(FROM OUR SPECIAL CORRESPONDENT.)

THE British medical press will receive at an early date an invitation to appoint delegates so as to discuss and to draw up the statutes that are to govern the International Association of the Medical Press. It will be remembered that an International Congress, the first of its kind, was held from July 26th to July 28th, 1900, at Paris, during the Universal Exhibition. More than 200 representatives of medical journals were members of that Congress and the majority of the civilised countries of the world thus participated in the gathering. Many subjects were discussed, but the thing was so new to the members that very few practical decisions were taken. The main result was a unanimous agreement that an international association of the medical press should be established. It was felt, however, that it would be premature to define with any precision the object and rules of such an association. The Congress decided that the committee which had organised the Congress should be empowered to draw up a scheme of rules, and it is this scheme that will shortly be issued to the various countries which were represented at the Congress. In the meanwhile, efforts were to be made in the various countries to group the medical journals and thus to constitute national associations of the medical press that could express an opinion on the scheme. So far nothing of the sort has been attempted in Great Britain. Each national meeting will be called upon to appoint delegates to represent its views, and to move such alterations of the proposed rules as it may judge expedient at the next International Congress. It was decided last year in Paris that Germany and Austria should appoint four delegates, England, France, Italy, and the United States of America three delegates each, Spain and Russia two delegates each, and the other nationalities one delegate each. The next International Congress of the Medical Press will meet at Brussels on Sept. 20th of this year and all representatives of medical periodicals will be allowed to become members of the Congress. But the delegates mentioned above are to meet a day or two before the general Congress. They are then to submit their amendments to the draft of the rules and to come to a joint agreement as to the project of rules to be proposed to the Congress for definite adoption. This preliminary meeting of the delegates will be more important from a business point of view than will be the Congress itself. It must be acknowledged that every precaution has been taken to ensure that the rules shall be thoroughly international in character and in harmony with the opinions of the majority. The first scheme of rules, though drawn up by the French committee, will be based upon the discussions which were held last year and at which most nations participated, and each nation will separately be able to criticise and to suggest alterations of these rules. Then the delegates of these nations on meeting at Brussels will try to weld together their different suggestions, and finally the International Congress as a whole will confirm or alter this project. The members of the French committee are Professor V. Cornil, Professor Charles Richet, Dr. R. Blondel, Dr Laborde, Dr. Marcel Baudouin, and also Professor Posner of Berlin. It is these gentlemen who are to prepare the draft of rules which will soon be sent to all the nations concerned and which the medical press will be called upon to criticise, and subsequently to appoint delegates to convey their criticisms to the Brussels Congress. The secretary of this the forthcoming Second International Congress of the Medical Press is Dr. Pecherc, 140, rue de la Loi, Brussels, to whom all communications relating to the Congress should be addressed.

Thus the matter stands at present and the next question is, What action will be taken by the medical press of this country? The main difficulty arises from the very different character and position of the medical journals in various countries and even within the frontiers of any one particular nation. Yet, in spite of this, there may be some common ground of agreement. For instance, it is proposed to establish, on coöperative principles, a central international bureau of information. The editors of the various papers could send, probably in the French language, as being the language most widely understood, brief summaries of any important article they may publish which would be forwarded by the central bureau to all the papers belonging to the association. Thus each paper would receive for quotation press cuttings of what the editors of a great number of papers themselves thought was the most important matter published in their columns. This might not be considered very useful by papers which have regular correspondents in the principal capitals of Europe, but it would be of service even to such papers when the information came from smaller countries. In Denmark, Norway, Switzerland, and other small or distant countries much good work is done that remains ignored by the world at large because there is no regular system of correspondence and because, in many cases, the language spoken in these countries is scarcely known beyond their frontiers. Again, there is a great deal to be done in regard to the ethics of the medical press. First, it is necessary to define what is worthy to be called a medical journal and then what form of advertisements such papers may publish without compromising the honour and dignity of the medical press. Of course, ethical principles are difficult to define and still more difficult to enforce, but the most powerful means to this end is to create a wholesome public or professional opinion, and congresses very materially help in developing such opinion. Then there is the whole question of copyright and the limit up to which quotations are justifiable. The international assimilation of medical terms is also a very practical problem which an international association of the medical press might well help to solve. Thus it will be seen that there is no lack of useful work that could be undertaken, and in any case, and whatever may be the result, the British medical press should take its fair share of the efforts made by other nations for the common good.

Paris, April 16th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

"How the Poor Die."

THIS is the heading in one of the Manchester papers to the report of an inquest held by Mr. J. F. Price, the county coroner, at Withington Workhouse on April 10th. A working cabinet-maker living in lodgings in Hulme had been ailing for some time and was occasionally intemperate. On April 1st he was taken ill at his work, and the next day a fellow lodger applied at the Chorlton Union offices, and the invalid was seen by a medical man who ordered his removal to the Withington Workhouse Hospital. About 7 P M. he was assisted into the ambulance van which was sent for him, but on its reaching the workhouse the man was not in it. A policeman met him staggering along Burton-road and, with the usual amount of diagnostic insight possessed by his class, thought he was drunk and told him to go home. The man, however, went into a hotel and on coming out fell down, whereupon he was taken to the police-station. He was visited, so it is stated, every hour, but made no complaint of illness till next morning, when he was removed to the workhouse hospital, where he died two days later. "Medical evidence described the cause of death as consumption and pneumonia." "Death from natural causes" was the verdict of the jury, "who suggested that an attendant should always accompany persons sent in the van to the workhouse." This very proper suggestion was met by the statement that it was not the practice except in cases of lunacy; but if a patient is so ill as to require to be taken in the ambulance to the workhouse he should be looked after and cared for on the journey. It is satisfactory to find that at a meeting of the guardians on April 12th the chairman "instructed the relieving officers to either accompany patients to the workhouse or send some other person with them." This unfortunate case cannot serve as an indication or an illustration of "how the poor die." It is sad enough; but the only exception—so far as the evidence went—to the proceedings of the Poor-law authorities that can fairly be taken is the fact that the *man* was sent alone in the ambulance. This should not have happened and will not happen in the future. The reporter presumably yielded to the temptation of using a sensational heading, even though, happily, this exceptional case does not tell us "how the poor die."

The Mauldeth Hospital Fund.

The Mauldeth Hospital is devoted to the care of incurable cases, and in aid of its funds an exhibition of art and handicrafts is being held in the Chorlton Town Hall, Manchester. One section is given over to "works of representative artists," chiefly sent for exhibition only. Another contains specimens of art work, crafts, and curios from many lands. Some of these are on sale. A third section is for "articles representative of British art and crafts sent in for competition." "The Canterbury Weavers" send an interesting sample of work. In Canterbury an attempt has been made and, it is said, successfully, to revive the old industry of hand-loom weaving. Employment is already given "to 30 or 40 girls, many of whom were physically incapable of ordinary hard work." The exhibition was opened on April 10th and is to remain open for a month, and the proceeds are to be devoted to one special branch of the work of the hospital—the provision of small pensions. The committee of the hospital give about £400 a year in pensions of £20 "for the benefit of afflicted persons who prefer to live with their relatives." Great care is taken in the selection of these cases. The exhibition was declared open by Sir W. H. Bailey, whose address was in the main a vindication of Manchester from the charge of being wholly given up to commercialism.

Vicissitude.

Exposed for sale in the shop window of a dealer in old plate and jewellery in Manchester is a richly-chased silver salver. In the centre an inscription is engraved which reads as follows: "Presented to —— Esq., M.R.C.S., L S A., as a token of gratitude and esteem by the widow and children of the late ——, surgeon, —— [the name of a neighbouring town], in whose last trying illness he not only displayed the skill of the physician, but the unvarying kindness and attention of a friend.—June, 1864." Not so very many years have passed since this token of loving kindness and grateful remembrance was given and received with painful pleasure and it may now perhaps go the way of old silver, be melted down and worked up again into a similar memorial of affection.

Hospital Sunday.

The committee of the Hospital Sunday Fund for Manchester announce that the total amount collected on Feb. 10th was £4062. This is an increase of £196 over last year's collection. Hospital Saturday is fixed this year for May 4th.

Manchester Port Sanitary Authority.

At the meeting of the Manchester Corporation Ship Canal Consultative Committee held on April 17th a letter from the Local Government Board was submitted in reference to establishing a permanent port sanitary authority for Manchester. The Board recommend that the authority shall consist of four representatives from Manchester, four from Salford, one from Stretford, one from Eccles and district, one from Warrington, one from the district of Runcorn, and one from the Widnes district, the costs to be divided proportionately. A public inquiry is to be held shortly as to the desirableness of these proposals. Although a close watch is kept to guard against the importation of plague or any other infectious disease it is very desirable that all the machinery for the purpose should be carefully arranged and kept in good working order.

Manchester and Salford Co-operative Society.

The Manchester and Salford Co-operative Society is composed almost entirely of those who are called the working-classes. There are, it is said, 14,572 members, who have standing to their credit in the society the sum of £210,829 They do a large business, the sales for the last quarter having amounted to £92,382. After all charges have been made a dividend of 2*s*. 3*d*. in the pound is given on members' purchases, and of 10*d*. in the pound on those of non members, various grants and bonuses are also given, and the following contributions to medical charities are made To the Children's Hospital, £5 5*s*.; to the Royal Albert Asylum, £5 5*s*.; to the Manchester Royal Infirmary, £10; and to the Northern Counties Hospital for Incurables, £5 5*s*.

Dr. Metchnikoff on Microbes and the Human Body.

A special meeting of the Manchester Literary and Philosophical Society was held in the Society's Library in George-street on April 22nd, when Dr. Elie Metchnikoff of the Pasteur Institute, Paris, delivered the "Wilde" Lecture.

Before its delivery, Professor Lamb, the President of the society, presented the Wilde Medal for 1901 to Dr. Metchnikoff, and the Wilde Premium to Mr. Thomas Thorp. The subject of the lecture, which was delivered in French, was "*La Flore Microcobienne du Corps Humain.*" There is no question as to the interesting nature of the lecture, though it might perhaps have been a little startling and disquieting to those of the audience who were not previously aware of the methods exhibited by nature in our bodily arrangements It seems that we are born free from microbes, but immediately after birth the surface of the skin and of the mucous membranes becomes inhabited by them. In the skin the capillary follicles are their favourite abode, while the moist mucous membranes are even more abundantly supplied than the skin. But the digestive organs exhibit them in the greatest abundance. More than 30 species inhabit the mouth. Though many bacteria cannot endure an acid environment the bacterial system of the human stomach is "pretty rich," 30 different species having already been distinguished. In the small intestine bacilli are the predominating form and in the large intestine they are joined by a great number of new kinds. The latter is inhabited by about 45 species of microbes. It begins to be invaded immediately after birth, even before any food has been taken The microbes of the skin cannot be shown to do us any special good, but the flora of the mouth may be of service. Wounds in the mouth heal sooner than do those upon the outer skin. And it is probable that the acids secreted by many bacteria in the small intestine prevent the development of certain other microbes which may impede digestion. "There was reason to believe that in some cases the germs of Asiatic cholera were rendered innocuous by the action of the microbes which they encountered in the intestines." It has been contended that microbes played an important part in digestion, but the general conclusion from the data available is that "for the normal action of the human digestion the presence of the intestinal microbe was by no means indispensable." As to the harm done by microbes, when the defensive forces of the body flag the bacteria of the skin begin to multiply and "to pour their noxious products into the tissues and the blood," so that serious boils and anthrax may occur. But the greatest harm is done in the stomach and intestines The gravity of the danger in cases of perforation of the intestines "is due to the inflammatory action of the microbes that escape into the peritoneum." It is probable that a great many of the toxic products of our intestinal flora have still to be ascertained, but there is reason to state that they play a considerable part in causing many and various maladies Dr. Metchnikoff then asked how we were to square the conviction that so many of the microbes usually found in the body are injurious with the Darwinian argument that if so they ought to have been eliminated by natural selection. To account for this he drew "attention to the fact that the very organs of the body which sustained this flora were themselves for the most part either useless or injurious to health and life." The capillary follicles of the skin, inhabited by microbes capable of producing more or less serious disease, "were useless organs and represented merely what was left of the hair that covered the skin of animals who were our ancestors" In the digestive apparatus of man there were parts, to say the least, now useless—e g, the vermiform appendix—"more fully developed in our animal forefathers," and already undergoing reduction in the anthropoid apes "Even the stomach . ... was in reality nothing but a large reservoir for food .. .. which could without serious inconvenience be dispensed with. There were at that moment four persons living without stomachs and thus furnishing a strong argument against the utility of that organ" Dr. Metchnikoff allowed that the small intestine was necessary, but that instead of being between 18 and 21 feet long man might do with one third of that length. Still more disrespectful was his attitude towards the large intestine. "The sum of all this was that we possessed a voluminous and highly-developed organ which fulfilled no useful function and bred a very copious and varied mass of microbes capable of injuring us through their poisons" Its development was traced to certain conditions in the life of herbivorous vertebrate animals capable of running at great speed, conditions no longer present, and so not requiring that special organisation. "The slow tendency of evolution to bring about the atrophy of such organs or characteristics might, however, be assisted by medicine and surgery, medicine coping more effectually with the noxious microbes and their effects, while the progress of surgery had already brought it within its power to remove by operation organs or parts of organs *propitious to the growth of the 'flora.'*" Dr. Schunck proposed and Professor Hickson seconded a vote of thanks to the lecturer which was accorded with acclamation.

April 23rd.

WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS)

Cardiff Infirmary.

ALTHOUGH, thanks to the energy and public spirit of the Mayor of Cardiff and of the proprietors of the *Western Mail* this institution is for the time cleared of its debt of £10,000, it is still unable to pay its way. With an expenditure of £2000 a year in excess of their income it was hardly likely that the Management Committee could entertain at their meeting on April 10th a proposal to open a disused ward of 15 beds, although the urgent necessity for the carrying out of the proposal was evident from the fact that no fewer than 143 patients were awaiting admission and some, it is said, had been waiting nearly nine months. The new operating theatre is to be opened on June 6th by Mr. Edmund Owen The donor of this much needed addition, which will cost about £1500, is Mr. Thomas Webb of the Ocean Colliery Company.

Vaccination in Cardiff.

Cardiff has hitherto been looked upon as a well-vaccinated town, but the inspections and investigations consequent upon the recent slight outbreak of small-pox have revealed conditions anything but satisfactory. In a report to the Health Committee at the end of March Dr. Edward Walford stated that in the street in which the first cases of small-pox occurred he found per 11 cent. of the children unvaccinated. On April 11th the subject was discussed by the Vaccination Committee of the Cardiff Board of Guardians, when it was reported that a Leicestershire railway contractor was carrying out extensive works in the town, that a large number of his workmen came from that county, and that it was their children in great measure who were unvaccinated. The chairman of the committee appeared to resent the interference of the Jenner Society from whom a communication had been received suggesting the purchase of the society's publications for distribution in the town. The committee considered that they were quite alive to their responsibilities and were doing all they could to enforce the Vaccination Act in spite of the fact that their attention was first drawn to the large number of unvaccinated children not by their own officers but by the medical officer of health.

The Medical Officer of Health of Newport.

The Local Government Act of 1888 required that every medical officer of health appointed after Jan. 1st, 1892, to an urban or rural district having a population exceeding 50,000 should possess special qualifications for the office, and it was confidently expected by those who took to public health work as a special line of practice that the Local Government Board would insist upon adequate remuneration being given at least to those who devoted their whole time to their duties That this expectation was not to be realised was only too apparent in numerous instances where the Board sanctioned appointments at salaries even below those paid to the chief inspectors of nuisances in some large towns. Lately, however, the Board have taken a firmer stand and have apparently decided that the minimum salary of a whole-time medical officer of health shall be £500 per annum and that where a contribution is made from the Exchequer grants an officer who is paid a smaller sum than this shall not be debarred from practising privately or from holding some other office. The Corporation of Newport—or, more strictly speaking, a small section of that body—have been endeavouring for the past six months to persuade the Board to sanction the renewal of the appointment of Dr. J. Howard-Jones at a salary of £400 as medical officer of health and of £50 as port medical officer. As the Board were proof against all persuasion the town council, at their meeting on April 9th, accepted the inevitable and reappointed Dr. Howard-Jones at an increased salary of £50 per annum as port medical officer. When it is remembered that Newport is an extensive port and has a population exceeding 70,000 persons, and that the medical officer of health also acts as police surgeon, a salary of £500 does not seem an exorbitant one and such indeed was the opinion expressed by the chairman of the Health Committee, who spoke in the highest terms of the capabilities of Dr. Howard-Jones and of the excellent work which he had accomplished during his six years of office.

Inefficient Vaccination.

At the meeting of the Bridgend Board of Guardians on April 13th it was decided to urge upon the Local Government Board the desirability of insisting that private practitioners should vaccinate as completely as public vaccinators are required to do. The opinion was expressed that children were sometimes insufficiently vaccinated by the private practitioner.

The Sale of Unsound Meat.

A case of some importance on appeal from a conviction by the Aberavon justices was heard at the Glamorgan Court of Quarter Sessions at Cardiff on April 13th. The borough of Neath and the urban district of Margam adjoin and almost form one town. In December last a butcher killed a pig in his slaughter-house in Neath and a farmer who had previously purchased it took the carcass to his own premises situated in Margam. The carcass was found to be unfit for human food, was condemned by the medical officer of health of Margam, and was ordered by a justice to be destroyed. At the instance of the Margam District Council the butcher was proceeded against before the county justices and he was fined £5. He appealed against this decision and at the quarter sessions his counsel contended that the proceedings ought to have been taken, not by the Margam District Council, but by the Corporation of Neath, in whose district the sale took place. The court held the contention to be a sound one and allowed the appeal, but consented, upon the application of counsel for the Margam sanitary authority, to state a case for the High Court.

Bequests to Charities.

Miss Selina Northcote of Woodbury has bequeathed £3000 to the Devon and Exeter Hospital, and £500 each to the West of England Eye Infirmary, Exeter, the Exeter Dispensary, and the West of England Asylum for Idiots.—Miss Mary Cannington, who died on March 30th, has bequeathed £5000 to the Bristol General Hospital, and £500 each to the Bristol Dispensary and the Bristol Eye Hospital. A few years ago Miss Cannington gave to the Bristol Royal Infirmary £10,000.

Hospital Sunday Fund in Bristol.

At a meeting of the council of this fund held on April 18th under the presidency of the Lord Mayor of Bristol, it was stated that the total collections for 1901 amounted to £1761, being an increase of £378 over the previous year. Collections were made in 246 places of worship, as compared with 223 last year. The total distribution to the medical charities amounted to £1713, as compared with £1313 in 1900.

April 22nd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Small-pox in Glasgow.

THE movement of the epidemic continues to justify the favourable anticipations recently expressed by the authorities. The cases in hospital now number only 155 and the new admissions during the week have been fewer than for several months. At a recent meeting of the town council a member proposed that the daily bulletin should now be discontinued. The Lord Provost, in replying, referred to the unfortunate experience which followed this step when it was adopted in the earlier part of the year. At that time the epidemic developed a more active phase and a general feeling arose among the public that the authorities were concealing the real position of matters. The advantage of continuing the daily announcement just now is obvious. It offers the most practical and substantial proof that the disease is rapidly declining and that the measures adopted by the health department are proving efficient. The Lord Provost has appealed to the press to avoid the presentation in anything like a sensational form of the facts of the epidemic. Unfortunate and painful as some of these have been it is only fair to remember that the disease has been present in the city for many months and that the total number of cases and the deaths due to the disease have been spread over a relatively prolonged period. It is no exaggeration to say that in many other places the outbreak has caused more excitement than it has actually produced in the city where it has occurred. This is largely due to the fact that the totals have often been presented without any intimation of the length of time over which the numbers have been spread.

The Inspection of Meat in Glasgow.

The report of the Health Committee dealing with this subject was discussed at a meeting of the corporation on April 15th and led to a somewhat acute difference of opinion. The report proposed that in addition to the detective system at present in operation by-laws should be made for the inspection of carcasses, &c., sent into the city, by veterinary and lay inspectors, for the marking of meat passed by the inspectors, and for the arrangement and regulation of premises in which the official inspections could be conducted. It was argued that under the existing system it was easily possible to smuggle food into the city, and that the present staff could not ensure adequate and efficient inspection. Against the new proposals it was urged that they would promote the sending of portions of carcasses without any history attached, would encourage the view that suitability for food purposes could be determined by inspection of the dressed carcass rather than by a knowledge of the processes of disease, and would vitiate the principle that a wholly satisfactory examination of meat can only be made at the time of slaughter. Rather than to endeavour to add to existing local powers as was proposed, the right proceeding, it was claimed, was to move in the direction of securing an imperial law rendering it necessary for every carcass to be examined and certified at the time of killing. After an interesting debate the new proposals were adopted by a considerable majority.

Glasgow Hospitals.

It is announced that the King has been pleased, by warrant under His Majesty's royal sign manual, to direct letters patent to be passed granting a supplementary charter to the Glasgow Royal Infirmary. Mr. Thomas Jenkins has presented to the Samaritan Hospital for Women about 120 volumes of standard works on gynæcology and several cases of surgical instruments which were the property of his late son, Dr. Thomas Jenkins. Dr. Jenkins was gynæcologist to the dispensary of the Victoria Infirmary and his recent sad death at the outset of a career full of promise caused deep and widespread regret.

Medical Practitioners and Unqualified (Pharmaceutical) Assistants.

The report of the committee appointed some weeks ago at a meeting of practitioners held in connexion with a recent prosecution of a medical man before the General Medical Council was presented to a second meeting held in Glasgow on April 17th. It recommends the presentation to the Council of a memorial praying the Council to reconsider the matter and in any case not to lay down any general doctrine to the effect that the employment by a registered medical practitioner of an unqualified person to sell drugs and poisons is "infamous conduct in a professional respect." The memorial was adopted by the meeting and a deputation of eight practitioners was appointed to present it to the General Medical Council.[1]

April 24th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal College of Surgeons in Ireland.

AT a meeting of the President, Vice-President, and Council of the Royal College of Surgeons in Ireland held on April 18th Mr. F. Conway Dwyer, M.D. Dub., F.R.C.S. Irel., was elected Professor of Surgery.

Death of Dr. William Moore.

I regret to announce the death on April 18th of Dr. William Moore, ex-President of the Royal College of Physicians of

---

[1] Further particulars with regard to the memorial will be found on p. 1228 of our present issue.—ED. L.

Ireland, and late Crown Representative of Ireland upon the General Medical Council.

The Opening of the New Richmond Surgical Hospital.

The medical event of the week in Dublin was the formal opening by his Excellency the Lord Lieutenant of the new Richmond Surgical Hospital on April 20th His Excellency, in declaring the handsome building in North Brunswick-street open, congratulated the governors on possessing a magnificent hospital, which had before it a prospect of a long and useful career. Addresses were also delivered by the chairman (the Right Hon. T. A. Dickson, P.C.), Lord Iveagh (whose hospital corps in South Africa was manned by the staff of the Richmond Hospital), Viscount Powerscourt, Sir William Thomson, Sir William Findlater, Sir Thornley Stoker, and Mr. Thomas Myles (President of the Royal College of Surgeons in Ireland).

The Sanitary Condition of Howth.

At a meeting of the North Dublin Rural District Council held on April 17th the clerk submitted a report made by the medical inspector of the Local Government Board on the sanitary condition of Howth. The inspector stated that the outbreaks of diphtheria drew special attention to the need that existed at Howth for a properly devised system of sewerage and drainage. As regards the public drinking water-supply the report stated that the supply of drinking-water was derived from public pump wells (about 10), the majority of which were surface wells There were one or two open surface wells, which were very liable to pollution. In the very centre of the town, in the main street, there was an open or dipping well immediately adjoining dwelling-houses, which was extremely liable to pollution. This well should be closed, or measures taken to protect it and to convert it into a covered pump well.

Queen's College, Belfast.

On April 17th an important public meeting for the purpose of inaugurating a scheme for the better equipment of Queen's College, Belfast, was held in the Students' Union of the College. Interesting speeches were delivered and it was announced that Sir James Musgrave, Bart., D.L., would contribute £5000 to be devoted to the foundation of a chair of pathology. The Right Hon. W. J. Pirrie, D.L., has promised to provide a new laboratory of natural philosophy and engineering. The Lord Mayor (Sir Daniel Dixon, D.L.) has decided to provide an athletic field for the students. Mr. John M'Connell, J.P., has given £1000 to be used in the direction of establishing a faculty of commerce, or, failing this, for the establishment of evening classes. Some of the members of the medical faculty have promised a sum of £1000. The High Sheriff of Belfast (Mr. Otto Jaaffe, J.P.) has contributed £500, his Honour Judge Barkley £200, and two other friends £25 each. At the present time Belfast is entirely a Government college, but this interesting movement has emphasised the fact that it would greatly strengthen it and ensure public confidence if it had a board of governors or senate with local representative men on it. Being a Government college, as one of the local Belfast newspapers points out, its "government is narrow, antiquated, and totally at variance with modern views and practice." It has also been urged that the connexion of the college with Dublin Castle should be severed and that a new charter should be issued constituting it a self-governing institution on the representative principle. A committee with secretaries and treasurers has been appointed with the object of raising this new endowment fund for Queen's College. It is to be hoped that the scheme will be successful, though many true friends of the college regard the present time as inopportune, and think that it would have been wiser to have postponed the appeal until some indication was forthcoming as to the recommendations of the Royal Commission.

Irish University Education.

The proceedings of the last week have produced another example of the "topsy-turvy" condition of this most difficult of all Irish questions. In connexion with the projected new scheme for the better equipment of Queen's College, Belfast, there has been so much writing and discussion in Belfast as to the authorities of that college being in favour of sectarian universities that the President, to allay public feeling, had to make a very clear statement at the college meeting that neither he nor the college professors wished to turn it into a sectarian place of education in any form or degree. But matters did not end even with this statement, for at a meeting of the Belfast Conservative Association the Marquis of Londonderry (the President) declared that he "considered the establishment or the creation of a Roman Catholic university for Ireland absolutely unnecessary. He believed that it would be absolutely unworkable, and he considered that it would be unfair to the Protestant population of the country to ask them to contribute to maintain a university over which they had no control." These are rather remarkable statements coming from the Postmaster-General who is a member of the same Cabinet in which are Mr. Arthur Balfour and Lord Cadogan, who have both specially pleaded for the establishment of a Roman Catholic university. Lord Londonderry had to make this very strong declaration, it is said, because it was brought home to him that his party in Ulster looked with the gravest suspicion on the appointment of the coming Commission in reference to Irish university education. During his recent holiday in Ulster the Postmaster-General has been most carefully eliciting the views of educationalists and others on the university question, and hence his speech is all the more remarkable It shows clearly that even in the present Cabinet there are men who differ as widely on this vexed question as do people living in Ireland itself. Then, again, the debate in the House of Commons on April 22nd showed that even the Roman Catholics of Ireland are not quite agreed as to the Commission, for Mr. Dillon stated (and Mr J. Redmond agreed with him) that the Nationalist party had no responsibility for the issue of the Commission. "We did not ask for it, and we were not consulted about it, nor, as far as any intimation reached me, did the Irish hierarchy ask for it, and I feel confident that the hierarchy of Ireland would not make themselves responsible for the referring of this question to a Commission without consulting with the Irish Party." In the debate which followed a good deal was said as to whether Trinity College should be included in the matters to be considered by the Commission Originally the Lord Lieutenant said that Trinity College was to be excluded from the subjects referred to the Commission for consideration, but the Presbyterians of Ireland have demanded that Trinity College and the University of Dublin should be included, and it is evident from Mr. Dillon's speech that the Nationalist party are of the same opinion. Such a pass have things reached that the authorities of Trinity College have become most uneasy and Junior Fellows have urged in a memorial to the governing body of Trinity College the desirability of intimating to the heads of the Roman Catholic Church and of the Presbyterian Church in Ireland their readiness to provide facilities for the catechetical and religious instruction of their students by clergymen of their own churches and to invite their coöperation They also urge that negotiations should be entered into with the heads of the Presbyterian Church with the view to establish a Presbyterian Divinity School in Trinity The governing body made a very non-committal diplomatic reply. If the Royal Commission will only bring out clearly the facts apart from all sentiment or religious and sectarian bias, it may do something to lead to the settlement of this most vexed and perplexing of subjects

April 24th.

PARIS

(FROM OUR OWN CORRESPONDENT.)

A Central Office for the Recovery of Medical Fees.

THE Association of Medical Men of the Seine, looking at the difficulties which so often arise with regard to medical men obtaining regular payment of their fees, have decided to start a central office, to which their clients will send their bills This office will undertake to collect the money and will charge a commission of 5 per cent. with a minimum of 50 centimes for expenses Disputed accounts will be looked after by a separate department, which will undertake all charges and expenses, charging merely a commission of from 20 to 30 per cent on the sum gathered in however little or much this may be The office will also keep a "black list" of persons who are known to be bad payers which medical men may consult, so that they will be put on their guard Everyone making use of this office will have to subscribe an annual sum of 10 francs, so that the working of the office may be upon a sound financial footing. It is not proposed to open the office until at least 300 persons are entered as subscribers. This is not the first establishment of the kind which has been tried, but the former ones were due to private enterprise and failed. It is to be hoped that the present attempt, which is undertaken with the official auspices of the medical association, will be a real success.

The Principles of Medical Deontology.

On April 5th it was announced that the Conseil Général des Sociétés d'Arrondissement had adopted the following principles of medical deontology. 1. Any medical man who is called in to attend a family for the first time shall, if he sees or becomes aware that he has merely been called in in the absence of the usual medical attendant, only give advice and treatment for so long as his professional brother is away. 2. Any medical man called in in the absence of another medical man who has been treating the case, may, if the patient expresses a wish to retain his services for the future, go on with the case provided that he informs the former medical attendant. 3. Any medical man who may be accidentally called in an emergency to a patient shall confine himself to prescribing such medicines and treatment as are immediately necessary and shall not return to the patient's house except in consultation with the usual medical attendant. 4. Any medical man summoned by a patient during the course of an illness, either acute or chronic, shall do his best to get the medical man hitherto in charge of the case retained. In case of failure the new attendant must at once acquaint the old one whom he succeeds. 5. Any practitioner called in as a consultant shall, while in presence of the patient or his friends, abstain from all comment on the treatment hitherto followed. The consultation should be held in private and the treatment recommended should be carried out by the ordinary medical attendant. 6. Any consultant, whether called in the first place by the medical man or by his patient, shall not pay a second visit without the cognisance of the general practitioner. 7. It is a mark of good fellowship to accept as a consultant the practitioner proposed by the patient or his family, whatever be his age or status, provided that his personal and professional honour are above suspicion. 8. A consulting-room is neutral ground, where a medical man may give advice to anyone coming to consult him without any regard to the medical man who usually looks after the patient in question.

Hygiene and Laundries.

At the meeting of the Academy of Medicine which was held on April 16th M. Delorme, surgeon-general (*médecin principale*) in the army and one of the professors at Val de Grâce, said that in his opinion laundry operations as at present practised did not afford sufficient protection to those people who feared the importation of microbes into their houses by reason of their own personal linen having been in contact with that of their neighbours who might very possibly be suffering from small-pox or other infectious disease. M. Delorme considered these fears as perfectly reasonable and wished that all directors of hospitals, asylums, and refuges should be made aware of them. Washing, as at present practised, includes soaking in cold water, soaking in lye, soaping, beating and brushing, rinsing and hand-wringing, or nowadays machine-wringing, drying, ironing, and folding. All these processes employ numerous hands and brutal machinery which destroys the linen, to say nothing of chemicals such as *eau de javelle*, sulphur, and the like, which are none the less destructive. M. Delorme forgot, however, that all these substances are for the most part strongly antiseptic and that a prolonged soaking in a boiling solution of soda deprives microbes of most of their powers for evil. The process which M. Delorme put forward and which the Assistance Publique has just adopted at the hospital in the Rue Michel-Bizot, and which is employed also at the Pasteur Hospital, is very simple. The linen is first soaked in a hot solution of bicarbonate of soda. It then passes into a large cylindrical stove which can be rotated in alternate directions. The axis of this stove is formed of a second hollow cylinder pierced with holes which allow the introduction of: (1) cold water, which washes out the soda solution; (2) steam under pressure, which converts the cylinder into a veritable disinfecting stove of a very perfect kind, for the oscillatory movements result in a thorough cleansing of a type not to be found in ordinary disinfecting stoves; (3) a hot solution of soap which, as the apparatus is kept in motion, effects a thorough cleansing; and (4) another current of cold water after half an hour or so, followed by more steam and lastly by a final rinsing current of cold water. The linen is then passed through a wringer and finally dried in a current of hot air. M. Delorme considers that this system provides for ideal washing and disinfection at the same time. Experiments made at the Pasteur Institute show that linen infected with all kinds of virulent microbes came out at the end of the operations perfectly aseptic. Only two persons are required to work the machine, which, besides being economical in working, takes up very little space. An ordinary cellar, provided that access for the clothes and a plentiful water-supply are provided for, will serve for the washing of the linen from a hospital of 500 beds. At the children's hospital in the Rue Michel-Bizot an ordinary mason with one assistant looks after the washing. The saving effected in one year at a charitable institution at Nanterre where 2500 kilogrammes of linen were washed every day was over 28,000 francs at the end of the first year. M. Delorme suggested that the Academy should recommend this apparatus for use in both civil and military hospitals as well as in private laundries.

April 23rd.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Battle of the Clubs in Leipsic.

STRIKES of medical officers of clubs have already taken place in several towns in Germany, such as Remscheid and Iserlohn, but none of them were so important as that which is now in progress in Leipsic. The club system existing in Germany has been several times described in THE LANCET,[1] and it will be recollected that membership of a club is compulsory on the working class, that the clubs are all under State control, and that the income of a considerable proportion of the medical profession depends on club practice. The committees of clubs have often taken advantage of their position to appoint medical officers on terms hardly compatible with their position as professional men, but in Leipsic, where matters recently came to a climax, the conditions of club practice have hitherto been relatively satisfactory. The Leipsic sick club had adopted the so called "free choice system," and had admitted nearly 200 medical men to practise in the club. The medical officers of the club always had a union of their own and a representative committee which was in communication with the executive of the club and assisted in settling disputes arising between medical men and club members. Of late the relations between the executive of the club and the medical committee became rather strained, the former alleging that the medical men did not sufficiently consider the financial interests of the club in their prescriptions, &c., and that the medical committee had not instructed the medical officers as to their duties in this respect. The executive of the club, moreover, declared that they would no longer recognise the medical committee, but would in future issue instructions to the individual medical men without its intervention. This they in fact did, and several medical officers were asked to call at the business premises of the club where they were discourteously reprimanded. The medical officers, therefore, gave notice that if matters were not put on a satisfactory footing within a week they would then cease to work for the club, and 156 of them—the overwhelming majority—accordingly took this course on April 5th. In thus breaking off their club practice they did not thereby leave the club patients without medical advice, but consented to attend them as private patients, charging fees to the individual cases. The club then proposed to invite medical men from other towns to settle in Leipsic, where they would be appointed medical officers to the club, the free choice system being thereby abandoned. The Leipsic medical chamber, however, informed aspirants to the vacancies that they would be required to appear before the court of honour if they agreed to the conditions offered by the club. The whole medical profession is on the side of their brethren at Leipsic. The Berlin Free Choice Society has issued a notice to its members informing them that they will not be re-admitted to the society if they go to Leipsic at the present time to aid the club in its conflict with the medical men The *Medical Reform* says that possibly some medical men with little money and less character might be tempted to come to terms with the club, but that such persons must be pitied rather than blamed for their ethical shortcomings The state of affairs at Leipsic has caused a sensation not only in the medical profession but in all circles of society The daily newspapers are publishing detailed telegrams descriptive of the strike and the measures taken on both sides, and their columns are filled with discussions on the disadvantages of medical practice in general and on the unattractive features of club practice Journals of every political bias, even those written for the working classes are unanimous in blaming the club and in congratulating the medical officers on the firmness of their attitude This is the first medical strike begun not for financial but for ethical reasons, and is on a greater scale than the previous strikes, which were nearly all unsuccessful owing to want of organisation Attempts at mediation have been tried at Leipsic, but have proved useless, and it is to be hoped that the club will be defeated

---

[1] THE LANCET, Oct. 22nd, 1898, p. 1093; June 17th, 1899, p. 1668; and Nov. 10th, 1900, p. 1390.

Organisation of the Pharmaceutical Profession

The *Official Gazette* recently published a Royal order relative to the new organisation of the pharmaceutical profession in Prussia, which will be conducted on lines analogous to those followed several years ago in the organisation of the medical profession A pharmaceutical chamber will be instituted for every province with power to discuss questions concerning the profession, and if the necessity arise it will be consulted by the provincial authorities The members of the chambers are to be elected by the qua[illegible] within the district, [illegible] representative Co[illegible] present, but if a member commits an ethical misdemeanour the chamber will be authorised to deprive him of the right of electing or being elected. Apart from the provincial chambers a joint committee will be instituted for the whole State, to which each provincial chamber will send one representative

Income of the Medical Profession in Berlin

The Medical Chamber of Berlin and the province of Brandenburg has issued an interesting report on the subject of the income of the medical profession residing in that district The chamber is authorised to fix an annual sum to be paid by every medical man for the expenses of the chamber and the support of distressed members of the profession It had been decided that a uniform rate of 10 marks (10*s*) should be paid and an additional sum by those earning more than 5000 marks (£250) The chamber has been informed by the income tax officials that of 1946 Berlin medical men under the jurisdiction of the chamber 529 earned from 900 to 3000 marks (from £45 to £150), 273 from 3000 to 5000 marks (from £150 to £250), and 785 more than 5000 marks, the largest income amounting to 295,000 marks (£14,750) It appeared that 107 medical men had no taxable income at all and the income of 252 could not as yet be ascertained In the other towns of the province the proportions were similar to those found in Berlin, so that 4 per cent of all the medical men had no taxable income, 26 per cent had an income from 900 to 3000 marks, 17 per cent from 3000 to 5000 marks, and 40 per cent more than 5000 marks In 13 per cent no reliable information could be obtained

April 22nd

ROME

(FROM OUR OWN CORRESPONDENT)

Professor Bizzozero's Successor

THE medical faculty of the University of Turin has unanimously resolved to invite Dr. Camillo Golgi, LL D Cantab, professor of general pathology in the University of Pavia, to fill the chair left vacant by the death of their colleague, Dr Bizzozero Dr Golgi's great work in histology, his classical studies in malaria, and his reputation as Dr Bizzozero's most distinguished pupil, were recommendations not easily found united in possible candidates for the chair.

A Case of "Siamese Twins"

Dr Francesco Caruso, *privat-docent* in gynæcology in the Neapolitan School, has just reported on a case of monstrosity resembling that of the Siamese Twins It comes under the category of "sternopagi"—that is, of two infants joined face to face from the upper part of the thorax to the umbilicus, this latter being common to the two They are both of the female sex, in fair health, and take the breast freely from the mother, a peasant woman of Marianella If, as is not unlikely, they should live, Dr. Caruso and other consultants deprecate surgical intervention, as contra-indicated by the disposition of the thoracic organs

A Great Medical Philanthropist.

"Having made Italy, we have now to make Italians," said Cavour's successor, Massimo D'Azeglio, and to carry out this consummation, so "devoutly to be wished," Dr Pietro Panzeri devoted all his faculties, original and acquired He "began at the beginning," and after graduation at the University of Pavia, made the rescue and rehabilitation of mal formed and mal organised children his professional *métier* For well nigh 30 years he laboured among the poor of Milan, bringing under special treatment every infantile victim to faulty or feeble development, and earned a truly wonderful reward in rearing thousands of apparently hopeless cases to the normal stature and strength, physical and mental, of their more fortunate fellows Milan was the headquarters of his practical work and there he brought the "Istituto dei Rachitici" founded by a kindred spirit, Pini, to its present high state of efficiency At Bologna he was *privat docent* in "Orthomorpheia," as it is called in Italy, and initiated successive relays of workers in the *métier* he had made his own Whatever energy he could spare from his special task he dedicated to promoting the interests of the profession and the cause of public hygiene, acting as communal assessor and councillor mainly with this object A native of Sormanno, in the province of Como, he was but 52 years of age when he died, leaving behind him a noble record of philanthropic work inspired by true patriotism and directed by rare professional skill.

April 21st.

CANADA.

(FROM OUR OWN CORRESPONDENT)

McGill University

MCGILL UNIVERSITY has in the past received most liberal support from the generous citizens of Montreal, and the end apparently is not yet Sir William Macdonald, who has already contributed $2 500,000 to the funds of the institution, has again announced that he will further subscribe to the extent of $150,000 Of this amount $75 000 will go to endow the chair of Chemistry, $62 500 for the chair of Botany, and $12,500 will be added to the chair of Physics By reason of these gifts there will be released the sum of $150,000 which has in the past been used for these endowments, and this will be taken and applied to the improvement of the arts course Miss Jessie Dow has also contributed $60 000 for the chair of Political Economy Lady Strathcona and the Hon Mrs Howard will bear the expense of a new wing to the medical building which will be erected during the course of the coming summer It will be four storeys in height and will be supplied with lecture theatres, museums, and chemical laboratories

Cremation in Quebec.

Some little time ago Sir William Macdonald of Montreal offered to defray the cost of the erection of a crematorium in the Mount Royal Cemetery of that city For this purpose it was found necessary to have legislative authority. A measure for this purpose was therefore introduced into the Quebec Legislature during the session which has just closed, and after considerable opposition it finally passed that House by a majority of one and the Legislative Council of the province by a vote of eleven to seven, the opposition coming chiefly from the Roman Catholics The Bill provides "that the deceased at the time of his death is entitled to be buried in Mount Royal Cemetery, and has expressed by his will a wish that his body be cremated"

Toronto University

A measure of relief has been introduced by the Government into the Legislature of Ontario for Toronto University, the senate of which by a very large majority now favours a change of name to the "University of Ontario," pointing out that it is the only State-aided university in North America which takes its name from the city in which it is located. For the past three or four years Toronto University has been financially embarrassed, and has practically gone behind in that time to the extent of $30,000 or $40,000. The governmental relief will give the university $20,000 this year; and in the supplementary estimates there is provision for $50,000 more to commence the immediate erection of a new science building, the total cost of which will be about $200,000. The Bill further provides that the government of the university shall be invested in a board of trustees. This change is made to tempt wealthy Torontonians who in the past have taken no financial interest in the affairs of the university. McGill University, which is not under State control, prospers wonderfully by the acts of wealthy Montrealers; and by placing Toronto University under the management of a board of trustees it is thought that the moneyed men of Toronto will not hesitate in coming to its assistance.

Hospital Work off Labrador.

Dr. W. T. Grenfell, who for the last 11 years has been superintending missionary work among the fisher-folk in Labrador, recently addressed a meeting in Montreal where he gave some interesting details of hospital work in that country. In Labrador there are three hospitals, one at Battle Harbour, another at Indian Harbour, and a third now under course of construction at St. Anthony on the North French Shore. In addition to these there is the hospital ship *Strathcona*, of which the medical officer is captain, which is equipped with six beds and all necessary appliances, including x-ray apparatus. This ship constantly cruises up and down the coast and last year handled 1020 cases. Dr. Grenfell expressed his gratitude to Dr. T. G. Roddick, M.P., who had given great assistance in the work.

A Consumption Sanatorium for Nova Scotia.

Nova Scotia will soon have a consumption sanatorium. About a year ago a committee was appointed by the Government of the province to report on the question of a site, the style of building, management, &c., and this committee have had their report laid before the Legislature by the Premier of the province, the Hon. Mr. Murray. The committee recommend that the location be either at Dutch Village, on the Atlantic seaboard, near Halifax, or on the shore of Bedford Basin, near the village of Bedford; that accommodation be provided for 20 patients; that no resident medical officer be appointed, but a trained female nurse as lady superintendent; and that regular specified visits be made by two qualified medical men every week. Dr. Reid, the secretary of the Nova Scotia Board of Health, disapproves of the site near Halifax. He is further of the opinion that better results are obtained where a medical man is in residence as superintendent.

Winnipeg General Hospital.

The board of governors of the Winnipeg General Hospital held their annual meeting on Feb. 28th. The annual report showed that the number of patients treated in this institution during the past year numbered 2649, and that in the out-door departments there were 1435 consultations. The financial report showed a deficit of $4510.50, which was due to the fact that the hospital had had to cope with a small-pox outbreak within its walls during the early part of the year.

Proposed Dominion Medical Council.

Dr. T. G. Roddick, M.P., has introduced his Bill for a Medical Council for the whole Dominion of Canada. It provides that each province (of which there are seven) and the North-West Territories shall have each three members on this board—in all 24 from the regular profession of medicine. As there are some homœopaths in the province of Ontario who have representation on the Ontario Medical Council these will also be allowed three members on the Dominion Board to be elected by themselves. The 24 members of the regular school will be appointed as follows: the president of each provincial medical council *ex-officio*, one member to be elected from the medical councils of each province, and one to be appointed by the Governor-General in Council from each province, and for all such purposes the North-West Territories are considered as a province. In his address before the House Dr. Roddick gave the medical population as follows for the Dominion of Canada: Ontario, 2500 practitioners; Quebec, 1400; Nova Scotia, 476; New Brunswick, 243; Prince Edward Island, 90; Manitoba, 344; British Columbia, 214; and North-West Territories, 95. If this Bill becomes law it will be necessary for each of the provincial legislatures to enact a short amendment to their medical acts.

Canadian Medical Men in the Imperial Services.

A very gratifying announcement has just been made by the Canadian Militia Department to the effect that there is at present a Bill before the Imperial Parliament which will provide for the admission of the medical men of the colonies to the Imperial naval, military, and civil services. It is understood that the measure in question will provide that where the examinations and courses of study at the principal colonial schools of medicine are the same or equivalent to those of the schools of the United Kingdom the candidates shall be admissible to either of these services. At the time the Canadian contingents were being despatched to South Africa surgeons of the highest standing in Canada and holding commissions from Her late Majesty in the militia volunteered for service there, and even a complete field hospital was offered by Canada, but in both cases the War Office was forced to refuse such service because it was contrary to the British Medical Act of 1858. Through the passage of this Bill this disqualification will be removed, and there is no doubt that Canadians as well as other colonial surgeons will hail the adoption of such legislation with complete satisfaction.

Vital Statistics from Quebec.

The sixth annual report of the Board of Health of the Province of Quebec contains some interesting details. In some respects that province is in advance of the other provinces of the Dominion, particularly as regards its birth-rate and the prevention of tuberculosis. Every householder now, in the province of Quebec, in whose household there occurs a death from consumption must notify the secretary of the local board of health within 48 hours of the date of such death, and then upon such notification having been given the municipality is bound to cause the disinfection of the apartments which have been contaminated by the patient. This law came into effect on June 7th, 1900. The recorder of statistics for that province has given some figures concerning the death-rate from tuberculosis in some of the Canadian cities, and it would appear that Quebec city is the least affected and Ottawa, the capital, the most. The death-rate in Quebec city from tuberculosis is 1·99 per 1000 of the population; that of Ottawa is 3·12, of Montreal 2·87, of Kingston 2·17, of Toronto 2·41, and of London 2·67. These figures compare favourably with Paris at 4·90 and New York city at 3·60. The birth-rate of Quebec province was 35·7 per 1000 in 1898 and 33·4 per 1000 in 1899.

The Metric System.

Lieutenant-Colonel Burland, Montreal, is interesting himself in the formation of a metric association the object of which is to prepare the people of Canada for the adoption of the metric system. The Hon. Mr. Bernier has accepted the honorary presidency. The association will seek to continue in a more extended way the work which has already been begun by the Canadian Government.

Toronto, April 4th.

NEW YORK.

(FROM OUR OWN CORRESPONDENTS.)

Yellow Fever and Mosquitoes.

AT the recent Pan-American Medical Congress held in Havana, Cuba, a committee reported a final statement of the results of their investigation made at the experimental sanitary station (Camp Lazear) near the town of Quemados, Cuba. At this station, under strict quarantine and with all other sources of infection absolutely excluded, they succeeded in infecting 85·7 per cent. of those individuals who had been bitten by purposely contaminated mosquitoes (culex fascinatus). Their observations did not confirm the opinion that mosquitoes carried the specific agents in their probosces and simply transferred it from one individual to another in a mechanical way, but appeared to demonstrate that the parasite of this disease must undergo a distinct cycle of development in the body of the mosquito before the latter was capable of conveying the infection. This period would seem to be not less than 12 days. They also considered the question of house infection and were able to show that this infection was due to the presence of mosquitoes that had previously bitten cases of yellow fever, and that the danger of contracting this disease might be avoided in the cases of non-immune individuals who slept in this building by the use of a wire screen. They also demonstrated by observations made at this camp that clothing and bedding contaminated by contact with cases of yellow fever and by the excreta of these patients were absolutely without effect in conveying this disease. They concluded that yellow fever was only propagated by the bite of the mosquito (culex) and that the disinfection of articles of clothing and bedding soiled by the excreta in this disease was no more required than in the case of like articles soiled by a patient with an attack of malarial fever.

The late Dr. Pepper of Philadelphia.

The late Dr. Pepper of Philadelphia was not only a scientific man of high attainments but a philanthropist of lofty ideals. Mr. Francis Norton Thorpe, writing in the *Century* magazine for February, 1901, says of him: "Dr. Pepper was the son of a physician, the celebrated 'Elder Pepper' as he is called to distinguish father from son. The father pursued advanced medical studies together with Oliver Wendell Holmes in Paris at a time when American students rarely went abroad. On his return to Philadelphia he became professor of the theory and practice of medicine in the University of Pennsylvania, acquired an extensive practice, and died in 1864 at the early age of 56 years. A few months before the father's death the son was graduated in medicine at the University of Pennsylvania. Great physicians are rare, and rarer is the man who is at the same time equally great as a man of affairs, as educator, and public benefactor. Such a man the son became. In 1870, at the age of 27, he projected the University Hospital and boldly set out to raise an endowment fund of $750,000. In less than four years he secured more than $500,000 (£100,000), including two appropriations of $100,000 (£20,000) each from the Legislature. The hospital was formally opened in 1874. Its creation was necessitated by the removal of the university from its old site, where the Post Office now stands. No such task had been done before by a citizen of Philadelphia, and its performance gave Dr. Pepper a position among the first men of the city. Dr. Pepper raised above $10,000,000 (£2,000,000) and secured about 100 acres of land from the municipality, lying near the heart of Philadelphia. To the execution of this task he gave the services of one of the most acute and at the same time most practical minds ever vouchsafed to man. To this service of his genius he added the personal gift of nearly 500,000 dollars (£100,000) which he earned in the practice of an exacting profession. It may be doubted whether any other American has run a like career. His sudden death of angina pectoris at Pleasanton, California, August 26th, 1898, occurred just as he had completed his fifty-sixth year." Dr. Pepper will be remembered by posterity as an eminent physician and as one of the most energetic philanthropists that the medical profession has produced.

Distribution of Mortality in New York City.

The health statistics of New York city reveal some curious and unexpected facts. The impression has always prevailed that overcrowded districts, insanitary surroundings, scantiness and poverty of diet, are the most important factors in determining the death-rate of a community, but from the statistics it would appear that the most healthy parts of New York City are those which are inhabited by the poorer classes, while in the quarters of the rich the death-rate is highest. An investigation has been made into the matter and the results have been published in a journal called the *National Provisioner*. The following are some of the examples quoted. The twelfth ward comprises within its boundaries one of the richest sections of the city with only 61·6 persons per acre, but among its population of 364,412 persons the total deaths were 2287, while in the thirteenth ward, which is inhabited entirely by the poorer classes, with 539 5 persons per acre, among its population of 56,602 persons the total deaths were only 196, the relative advantage being therefore greatly in favour of the thirteenth ward. Again, the Waldorf Astoria and Fifth-avenue society district is included in the twenty-first ward, which together with the nineteenth ward contains more multi-millionaires and millionaires than any other area of like extent in the world, but the mortality of these two wards, nevertheless, compares badly with that of the lowest quarters of New York. The twenty-first ward has 189 9 persons per acre, but among its population of 72,144 persons the total deaths were 442, whilst in the down-town slum district round the Bowery, Rivington-street, Norfolk-street, and Division-street, with 643 8 persons per acre and a population of 70,168 persons, the total deaths were 281. In the rich nineteenth ward, with 144·3 persons per acre, the total deaths in the population of 267,076 were 1575, whilst in the seventh ward, with 360 7 persons per acre, the total deaths in the population of 72,227 were only 403. The reasons for this seemingly anomalous state of affairs are not easy to give.

Condition of the United States Army in the Philippines.

The report of Colonel Charles R. Greenleaf, assistant surgeon-general United States army and chief surgeon in the Phillippines, has recently been issued and is full of useful information. The report covers a period of seven months, up to July 31st, 1900. With regard to the mortality of the army the report says: "The number of deaths in the army has steadily increased and a diminution of the death list can scarcely be expected. The number of men shot from ambush by small guerilla bands now exceeds those killed at any previous time and as time progresses and the men become more and more debilitated by tropical service the more marked will be the ratio of deaths. Gunshot injuries are the cause of the greatest mortality, with dysentery in the second place. There have also been a considerable number of deaths from typhoid fever, showing that the disease has gained a foothold in the islands. Dr. Greenleaf rightly lays much stress upon the supreme importance of sanitation both with armies in garrison and on the march, and expresses his satisfaction that American army medical officers are beginning thoroughly to recognise this fact. Owing to the scarcity of medical officers it has come about that, roughly speaking, 10,000 troops are serving at posts with practically no medical attendance. The number of posts in the Philippines was at the time the report was written 375 and was said to be constantly increasing. To fill these posts there were only 336 medical officers on duty in the islands.

April 13th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

The Bubonic Plague.

THE bubonic plague, which was thought to have disappeared, has broken out again. Four cases have occurred near Brisbane, two at Perth, one at Adelaide, while one case was introduced into Sydney on a troopship from Cape Town and proved fatal. The inspection of vessels and the other precautions against the introduction of the disease have been commenced again at all the ports. The destruction of rats has been going on steadily all the time, and all precautions will be rigidly enforced, the health authorities earnestly appealing to householders to coöperate in securing a maximum of cleanliness and in making it difficult for rats to live.

The Health of Sydney.

Mr. T. M. Kendall, medical officer to the Sydney Water and Sewerage Board, has presented his annual report on the health of the metropolis for the year 1900. He stated that, compared with the preceding year, the death-rate had increased, especially from diphtheria, diarrhœa, and typhoid fever. Deaths from phthisis had decreased. The mortality from typhoid fever was greater than it had been since 1896 and the disease was not confined to areas where it had been noted in former times, but had occurred in supposed healthy zones. The increase was probably attributable to neglect of householders in not keeping the house drainage in order. The greatest number of deaths from typhoid fever was reported during December. The highest temperature registered was also in December—viz., 104·1° F. on Dec. 12th. The rainfall was greater than it had been for several years, exceeding that of 1899 by 10·37 inches. The population had increased in the metropolis by 11,350. In the report of the health officer of the city of Sydney to the City Council it was stated that typhoid fever was likely to be as bad this summer as it was last summer. It is suggested that further legislation is necessary to provide means of making various diseases notifiable, when so proclaimed, without being infectious diseases under the Health Act, such as beri-beri, arsenical and phosphorus poisoning, lead poisoning, anthrax, &c.

Lunacy Administration in Victoria.

Reference has previously been made to the urgent necessity for reform in connexion with the lunatic asylums in Victoria. Dr. McCreesy, the Inspector-General of Asylums, has over and over again called attention to the need for important changes in the department. In his last report he stated: "For some years it has been felt by the medical staff that the lunatic asylums are not giving the patients all the advantages that are obtainable from modern medical treatment." One crying need is the provision of paying wards for the class of cases usually sent to private institutions in other countries. Thirteen years ago the present Lunacy Act was passed, and one of its provisions is that no private lunatic asylums are permitted. The State, however, has failed to make adequate provision for the well-to-do insane and consequently the Act is practically evaded. Places known euphemistically as homes or retreats are established by private enterprise and are under no sort of control. The patients in them are really insane, but as they are not so certified it is impossible to prove that the Act has been evaded. The publicity given to an unfortunate case in which an inmate of one of these institutions committed suicide has once more directed attention to the state of the law as to lunacy and the treatment of the insane in Victoria The press has been demanding reform for years, but Government after Government has allowed matters to drift. Investigation and reform are promised now and it is to be hoped that something will be done. Mr. W. Beattie Smith, medical superintendent of the Kew Asylum, has been granted leave of absence to visit Europe and America and will no doubt bring back with him the latest information on lunacy administration in the older countries.

Medical Men and Alcohol.

At a recent meeting of the council of the New South Wales Alliance (a temperance association) the following declaration was read. It had been signed by Dr. P. Sydney Jones, Dr. R. I. Ward, Dr. C. A. Dagnall Clark, Dr. B. J. Newmarch, Dr. W. Sheldon, Dr. F. H. Kyngdon, and Mr. C. Rorke.

> We, the undersigned, recognising the widespread ignorance prevailing with regard to the nature and effects of alcoholic liquors and believing that much disease, insanity, pauperism, and crime in the community result from the indiscriminate consumption of these as beverages, feel called upon to make known the following facts 1. That perfect health is compatible with total abstinence from all alcoholic beverages. 2. That alcoholic liquors, instead of increasing, as is popularly assumed, rather decrease capacity for work, and should be expressly abstained from when extremes of heat or cold have to be borne 3 That the habitual use of alcoholic liquors in quantities conventionally deemed moderate is often productive of serious disease. 4 That alcoholic drinks should never be given to persons suffering from ill-health or disease except by the advice of a medical man. 5. That no medical man should prescribe alcohol without a grave sense of responsibility, and that the quantity and duration of time for taking it should be definitely fixed.

This declaration has come in for a good deal of adverse criticism by the lay press as giving very little information.

Presentation to Dr. T. H. Fiaschi.

Dr. T. H. Fiaschi, of the Army Medical Corps, was entertained at a complimentary smoking concert by the representatives of the wine industry, to welcome him back from the war in South Africa where he has rendered such signal service. Dr. Fiaschi was presented with a very handsome illuminated address, which read as follows:—

> To Major Thomas Henry Fiaschi, Army Medical Corps, New South Wales, M D, Ch.D. Pisa and Florence, Italy—Dear Sir,—As representatives of the wine industry of New South Wales we are desirous of presenting you with this address of welcome as a mark of our appreciation and recognition of your unremitting and valuable services in connexion with viticultural pursuits. Whilst we are pleased at knowing we have amongst us one who has devoted so much time and trouble to the furtherance of the industry with which we are so closely identified as your esteemed self, we cannot allow the occasion to pass without in some way recognising your many and humanitarian services rendered at the front during the South African campaign.

Cases of Apparent Death.

Some sensation was caused recently at the Newcastle Hospital. An old man was brought there and when examined by the medical officer was pronounced to be dead. The body was then removed to the morgue. A little time afterwards movement and heavy breathing were observed and it was found that the man was alive. He was removed to a ward, but he died a few minutes later. When he had been first examined no pulse could be felt and there was no respiration. A somewhat similar case occurred a short time previously at Fitzroy, Melbourne. A patient was pronounced to be dead by a local medical man but later was found by the friends to be alive and was removed to St. Vincent's Hospital, where he lived for some days, dying ultimately from uræmia.

What is Medical Advertising?

On Jan. 2nd the Sydney *Daily Telegraph* published a special Commonwealth issue, a portion of which was devoted to short articles under the heading "Glimpses of the Century." The medical subjects and writers were respectively:—Surgery: A. MacCormick, M D. Edin. Malaria: W. Camac Wilkinson. Medicine: A. Jarvie Hood, M.B., C.M. Glasg. Dealing with the Insane: Chisholm Ross, M.D. Sydney. Sanitation: T. Mailler Kendall, L.R.C.P. and L R C.S. Edin. Use of Serums in Disease: W. Camac Wilkinson, M.D. Treatment of Inebriates: J. M. Creed, M.D., M.L C. The names of these professional men were printed over the respective articles and their facsimile signatures appeared beneath them. The subject was brought under the notice of the council of the New South Wales Branch of the British Medical Association, which passed the following resolutions:—

> That the attention of the council of the New South Wales Branch of the British Medical Association having been called to a series of articles in the Sydney *Daily Telegraph* of Jan. 2nd, 1901, over facsimile signatures of the authors, the council regrets to find that some of the contributors are members of this branch. The council considers it undesirable that signed articles on medical subjects should appear in the lay press
>
> That the foregoing resolution be forwarded to the authors of the signed articles who are members of the branch, with the expression of a hope that each contributor will offer some explanation as to the appearance of his signature.

It is understood that the contributors intend quietly to ignore these resolutions.

Standard Strength of Liquors.

The Board of Health of New South Wales has recommended the following standard strengths for spirituous liquors: whisky and brandy, 25·0 under proof; rum, 30 0 under proof; and gin, 35·0 under proof.

Obituary.

Mr. John E. W. Cruise, M.B., B.Ch., B.A.O. R.U.I., died recently at Orange, New South Wales, at the age of 36 years. He was a son of Sir Francis Cruise of Dublin. He had been practising at Orange for seven years and was held in high esteem by a large circle of personal friends as well as by his numerous patients, for he was a very capable practitioner. The cause of death was cerebral hæmorrhage.—A well-known figure has been removed from the medical circles of Sydney by the death of Mr. Robert Hunter, L R.C.P. & S. Edin., of Jamieson-street. He was a native of Kilrea, Derry, Ireland. He landed in Sydney in 1873, and was at first assistant to the late Dr. Charles M'Kay, but four years later he started an independent practice. He was noted for his charitable and philanthropic disposition.—One of the oldest county practitioners in Victoria died recently in the person of Dr. Samuel Reynolds who had been practising in Mansfield for over 40 years and was 77 years of age at the time of his death.

March 12th.

Obituary.

WILLIAM MOORE, M.D. DUB., F.R.C.P. IREL.

DR. WILLIAM MOORE, of 67, Fitzwilliam-square North, Dublin, who died on April 17th in his seventy-fifth year, had been for a great many years one of the foremost representatives of his profession in Ireland. The son of a medical man, he chose a similar path in life for himself and received his medical education at Trinity College, Dublin. In 1850 he was admitted a Licentiate of the Royal College of Surgeons in Ireland and graduated as M.B. in Dublin University. In 1855 he became a Licentiate of the King and Queen's College of Physicians (now the Royal College of Physicians of Ireland), in 1859 the Fellowship was conferred on him, and in 1883 he had the honour to be elected President. In 1860 he took the M.D. degree at his University. From 1868 to 1883 Dr. Moore was King's Professor of Practice of Medicine in the School of Physic in Trinity College. He was also an examiner in clinical medicine at Trinity College, physician to Sir Patrick Dun's Hospital, and physician to the National Hospital for Children. In 1885 he succeeded the late Dr. Benjamin George MacDowel as physician-in-ordinary to the Queen in Ireland and after Her Majesty's death last January he received the appointment of physician-in-ordinary to the King in Ireland.

Dr. Robert Lyons, nominated by the Crown to represent Ireland in the General Medical Council, died in 1886, and the vacancy thus created was filled by Dr. Moore, who was a member of the Council from January, 1887, to November, 1897, when he resigned Dr Moore was a member of many learned societies, and had been President of the Pathological Society and of the Section of Medicine of the Royal Academy of Medicine in Ireland. He was a man of mark, not only in Dublin but also in the North of Ireland. He had a country residence called Moore Lodge at Ballymoney, Antrim, of which county he was high sheriff, and his eldest son, Mr. William Moore, K C, was elected Member of Parliament for North Antrim in 1899 Dr Moore was the author of several small works on medical subjects, and he contributed many articles to the medical journals Among his separately published works may be mentioned "Infantile Mortality," 1859; "On Typhus and Typhoid Fever," 1871; and "On Epidemic Scarlatina," 1875 His contributions to periodical or serial literature included articles on Strumous Peritonitis, Idiopathic Tetanus, Aneurysm and Dementia, Cerebro spinal Complications in Continued Fever, Acute Rheumatism and Rheumatic Pericarditis, Affections of the Chest in Children, and Diseases of the Heart and Great Vessels

During his long life Dr. Moore had witnessed many improvements in medical practice and, it must be admitted, many changes in medical opinion. His mature judgment and well-trained mind predisposed him to caution in the accept- [illegible] mental attitude which was not [illegible] umstances, entrusted as he was [illegible] usual importance

GEORGE STONE, L R C P. & L R C S EDIN, L S A

THIS well known aural surgeon met his death on April 21st from an attack of pneumonia after a week's illness that indicated a very virulent type of infection. He was himself a man of apparently good constitution, who commonly enjoyed good health, and whose habits were both regular and frugal; in fact, everybody would have foretold for him a good prospect of long life As it is he died at the age of about 52 years, mourned by a very large circle of relatives and friends. Mr Stone began his medical studies in Liverpool and afterwards went to Vienna where he enjoyed the friendship and instruction of Professor Politzer whose methods [illegible] ne ear he largely followed [illegible] nslated from the German [illegible] stive work on the "Dis- [illegible] n aural and ophthalmic [illegible] the staff of the Liverpool Eye and Ear Infirmary About 15 years ago he gave up eye practice and confined himself to the study and treatment of ear disease, in which he enjoyed a reputation and a practice of the first rank He was a man of quiet but very courteous demeanour, with a somewhat retiring disposition, but possessed of the soul of honour, unflagging industry in the pursuit of knowledge and the welfare of his patients He had a great faculty for languages and was familiar with Spanish, Italian, French, Greek, and German, both colloquially and in a literary sense He was also a stenographer of many years' standing and well known by correspondence to other medical stenographers Mr. Stone will be missed not only by his immediate circle and neighbourhood, but from the international and other meetings of otologists where he was both familiar and respected

CHARLES KEARNS DEANE TANNER, M D R U I, L R C S IREL, M P

DR TANNER, whose death on the night of April 21st is announced, was the well known Nationalist Member of Parliament for Mid Cork Born in 1850, the son of the late Mr W K Tanner, M D, he received his education at inchester, Paris, Queen's College, Cork and the Universities of Leipsic and Berlin Had he continued in the practice of his profession he would very probably have made a brilliant success He graduated as M D and M Ch at the Queen's University and was for some time physician to several Cork hospitals, besides being demonstrator in Anatomy at Queen's College. But having elected to enter politics he sat continuously first as a Nationalist and after the split as an Anti Parnellite Nationalist for the Mid Division of county Cork In the House of Commons he certainly gained notoriety, but the game of politics has to be played in the House of Commons in a particular way, and Dr Tanner did not play the game as it should be played, and consequently never had the least influence over the assembly which he often outraged and sometimes amused Despite his frequent breaches of good manners and his irascible disposition he was a most kindly companion and popular among those who knew him well He was a "whip" of his party. Dr Tanner married a daughter of the late Captain John McDonnell Webb, formerly Captain Royal Irish Dragoons.

THOMAS WILSON, M D ST AND, M R C S ENG, L S A.

THE death is announced at the age of 82 years of Dr. Thomas Wilson He was the eldest son of the late Mr. Thomas Wilson, the Hull ship owner. Dr Wilson became a Member of the Royal College of Surgeons of England and a Licentiate of the Society of Apothecaries in 1840, while in 1864 he graduated as M D at the University of St Andrews He practised for some time in Hull, but late in life retired to Scarborough where he died

THE REV RICHARD PRIOR WINTLE, M R C S ENG, L S A.

THE Rev Richard Prior Wintle died at Cowley St. John, Oxford, on April 16th, in his sixty first year Mr. Wintle assisted in the services at the church of St. Mary and St John, Cowley, on Easter Day, and, shortly after contracting a chill, pneumonia developed, to which he succumbed The deceased was the son of Dr F. T. Wintle of The Warneford, Headington, Oxfordshire He received his medical education at St George's Hospital and became qualified as M R C S Eng in 1863 He also held the diploma of L S A. He practised the medical profession for a few years, but in 1878 he entered the Truro Theological College and in 1880 was admitted to holy orders, his first curacy being at St Mary's, Truro, with Canon Harvey. He was subsequently rector of Weston in Gordano, near Bristol, and later curate of Frome Selwood, Somerset Until recently he was for several years a member of the clerical staff at Holy Nativity Church, Knowle, a suburb of Bristol, where he gave his services voluntarily and only left on account of ill-health Mr Wintle was a member of the council of the Guild of St. Luke and took great interest in the work of the society. His quiet and kindly manner endeared him to a large circle of friends in Bristol and the district and sincere sympathy is felt with Mrs Wintle, more particularly in the parish of Knowle, where Mr Wintle was regarded with much affectionate esteem

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—In April the following candidates passed in the subjects indicated:—

Surgery.—P J R. Bucknill (Se [illegible]
T Burdekin, University Coll [illegible]
Hospital, A W H Grant ([illegible]
Hospital W J *Hogg* (Secti [illegible]
pital F A Hort Middlesex [illegible]
and II), St. Mary's Hospi [illegible]
Hospital

Medicine.—K M *Betts* (Section I), Royal Free Hospital P J R. [illegible] and Dublin, W H Crossley,
B [illegible] (Sections I and II),
S [illegible] Middlesex Hospital,
C [illegible] Garstang (Section I),
L [illegible] and II), St. Thomas's
M [illegible] ham R. F Lamport,
Hospital H Jessop (Section I) [illegible]
Royal Free Hospital and A. H Thomas (Sections I and II).

[illegible] ptist, Calcutta,
[illegible] ke, St Thomas's
[illegible] iversity College
[illegible] Hospital G B
[illegible] g, Manchester.
[illegible] T Harris,
[illegible] Hospital A F
[illegible] St. Mary's Hos-
pital; D V Muller Charing Cross Hospital, H Richardson, Leeds F R Rislen, St. Bartholomew's Hospital, and A H. Thomas, St Mary's Hospital

Midwifery.—L A F Baptist, Calcutta, F M Boclet, Charing Cross Hospital, C W S Boggs Leeds V Garstang Manchester, M S W Gunning, University College Hospital; L. R. Marshall, St Mary's Hospital; S. A. Mahmood and W. Miles, Middlesex Hospital; A. U. Parkhurst, Cardiff and St. Mary's Hospital; B. E. Sansom, St. Thomas's Hospital; T. Scatchard, Leeds; and A. W. D. Thomson, St. George's Hospital.

The diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery: T. Burdekin, A. W. H. Grant, F. A. Hort, H. Jessop, E. F. Lamport, L. R. Marshall, and R. A. Pitter.

University of Birmingham.—At the examination for the Diploma in Public Health held in April the following candidates were successful:—

Parts I. and II.—Francis William Bonis and Aaron Sims.

University of Durham. — At the second examination for the degree of Bachelor in Medicine, held in April, the following candidates satisfied the examiners:—

Old and New Regulations.

Anatomy, Physiology, and Materia Medica.—First Class Honours: James William Gibson, College of Medicine, Newcastle-upon-Tyne. *Second-Class Honours:* Fred Stoker, Walter Haward, and William John Phillips, B.Sc., College of Medicine, Newcastle-upon-Tyne; and John Spencer Hall, M.R.C.S., L.R.C.P., St. Thomas's Hospital. *Pass List:* Frederick Durnford Atkins, St. Thomas's Hospital; Frederick George Armstrong, College of Medicine, Newcastle-upon-Tyne; Cyril Prichard Burd, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital, James Alexander Bennett, College of Medicine, Newcastle-upon-Tyne; John Frederick Bridge, Birmingham University; Harold Linton Currie, William Gibbons, Albert James Gilbertson, Alfred Herbert Heslop, Thomas Charles Hunter, Lizzie Evelyn Kendal, and Bernard Warner Lacey, College of Medicine, Newcastle-upon-Tyne; Sidney Nix, St. Mary's Hospital; Donald Murray Ross and Mary Raw, College of Medicine, Newcastle-upon-Tyne; Douglas Montague Brooking Snell, St. Thomas's Hospital; Thomas John Samuel Suffield, L.R.C.P., L.S.A., London Hospital; Janet Arthur Vaughan, London School of Medicine for Women; and Hermann Wolfe and William Frank Wilson, College of Medicine, Newcastle-upon-Tyne.

Cost of Vaccination.—At the meeting of the Falmouth Board of Guardians held on April 19th it was reported that the cost of vaccination by the guardians during the past 12 months had amounted to £527.

Two ladies have just passed the German State Examination for medical practitioners in Freiburg, Baden, both obtaining the mark "very good." These are, it is stated, the first ladies to qualify in the ordinary way in the German Empire.

Increase of Salary.—At a meeting of the Somerset County Council held on April 9th it was decided to increase the salary of the county analyst (Dr. H. J. Alford) from £150 to £200 per annum. Dr. Alford has held the appointment for nearly 20 years, during which time he has analysed 20,456 samples.

Notification of Measles and Chicken-pox.—At the meeting of the Dartmouth Town Council held on April 9th it was decided, upon the recommendation of the sanitary committee, that measles and chicken-pox should be removed from the schedule of diseases notifiable under the Infectious Diseases Notification Act. The medical officer of health was instructed to give the authorities of H.M.S. *Britannia* immediate notice of any case of infectious disease occurring in the town.

Charing Cross Hospital.—On St. George's Day, April 23rd, a special *matinée* was held at the Pavilion Music Hall in aid of Charing Cross Hospital. The entire staff and orchestra of the Pavilion gave their services for the occasion and, as was fitting, roses were much in evidence. Altogether there were 36 "*turns*," in which most of the prominent theatrical and music-hall artists were represented. Tea and coffee were gratuitously supplied by Mrs. Robertson of New Bond-street. Messrs. Bechstein lent the grand piano and a sum of £230 was taken at the doors. Warm thanks are due to all who so kindly gave their time and skill towards affording help to the sick and needy.

Royal United Hospital, Bath.—On April 12th a meeting was held at the Bath Guildhall, under the presidency of the Mayor, in support of the Royal United Hospital, Bath. The Rev. E. Handley, President of the hospital, stated that the overdraft at the bankers now amounted to £3500. The Earl of Cork, Lord Edmund Fitzmaurice, Sir John Goldney, Canon Quirk, and others made speeches in favour of the hospital and pleaded for more financial support. £155 were subscribed at the meeting and it was decided to recommend that collections should be made at the various places of worship on Nov. 3rd in aid of the hospital and that subscriptions should be raised in the various towns and villages around Bath for the same purpose.

Parliamentary Intelligence.

HOUSE OF COMMONS.

Thursday, April 18th.

The Budget.

The proposals of the Budget introduced at this sitting by the Chancellor of the Exchequer were 2*d.* on the income-tax, making it 1*s.* 2*d.* in the £1, a duty on sugar of roughly speaking ½*d.* per lb., a duty on export coal of 1*s.* per ton, suspension of the Sinking Fund for another year, and borrowing powers to the extent of £60,000,000. In dealing with the sugar-duty the Chancellor of the Exchequer explained that glucose, used principally for the manufacture of jam, aerated waters, and beer, and containing about 45 per cent. of pure sugar, would be taxed at the rate of 1*s.* 8*d.* per hundredweight.

Meat for the Army.

Lord Stanley announced in reply to a question that the terms of the new contracts for the supply of meat to the army would exclude foreign meat.

Monday, April 22nd.

Death Certification.

Lord Hugh Cecil asked the Secretary of State for the Home Department (1) whether his attention had been called to the certificate of death given in the case of a certain Lily Graves; (2) whether he was aware that it was alleged that the certificate was so far false that it omitted a material circumstance, and that the Registrar-General had been asked, and had declined, to take any action in respect of such allegation; and (3) whether the Home Secretary would take steps either in regard to this particular certificate or generally to safeguard the accuracy of certificates of death.—Mr. Walter Long replied: My right hon. friend has asked me to answer this question. The reply to the first two paragraphs is in the affirmative. As regards the third paragraph, I have no authority to interfere in the matter, but I may state that the Registration of Births and Deaths Act, 1874, provides that any person who wilfully makes a false certificate for the purpose of the Act shall be liable to a penalty. There can be no doubt that the omission from the certificate of death of the fact that the deceased person died while under the influence of an anæsthetic is to be regretted; but I understand that the Registrar-General was not satisfied that the omission constituted a definite offence against the Act, and that under all the circumstances of the case he did not consider that any action could usefully be taken by him, more especially as the matter was not brought under his notice until eight months after the death occurred.

Troops in Hospital in South Africa.

Lord Stanley stated, in answer to a question, that the last report, dated March 8th, 1901, with regard to the number of troops in hospital in South Africa showed 13,993.

Tuesday, April 23rd.

Prosecutions for the Sale of Diseased Meat.

Mr. Field asked the President of the Local Government Board whether he was aware that a person charged with selling articles of food in contravention of the Sale of Food and Drugs Act must be informed of the exact nature of his alleged offence and of the alleged adulteration, as stated in the analyst's certificates, while persons charged with selling diseased meat under the Public Health Act, 1875, were not informed of the exact nature of the disease, but were vaguely charged with selling meat which was diseased or unsound or unfit for food; and, as under these circumstances the defendant could not prepare his defence, whether he would take steps to oblige sanitary authorities to state the exact nature of all such charges and medical officers of health to furnish to the person whose meat was seized a certificate of the exact nature of the disease affecting the meat seized.—Mr. Long replied: I am aware of the different requirements of the Sale of Food and Drugs Act and of the Public Health Act with regard to the matters referred to. I may point out that the adulteration of food and drugs can ordinarily be discovered only by the application of chemical tests. This is not so as regards meat which is diseased or unsound or unfit for food. The two classes of cases do not, therefore, seem to be parallel. I cannot say that I think that there is any sufficient ground for proposing such a change in the law as that suggested in the question.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to The Lancet *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

Bramwell, E., M.B., C.M. Edin., M.R.C.P. Lond., has been appointed Medical Assistant, Edinburgh Royal Infirmary.

Burland, Herbert, L.R.C.P. Lond., M.R.C.S., has been appointed Certifying Surgeon under the Factory Acts for the Finedon District of Northants.

Chancellor, William, M.B., B.Ch. Irel., has been appointed Certifying Surgeon under the Factory Acts for the Banbridge District of county Down.

Cusse, E., M.R.C.S., has been appointed Certifying Surgeon under the Factory Acts for the Broughton District of Hants.

Davies, H. H., M.R.C.S., has been appointed Certifying Surgeon under the Factory Acts for the Cerrig-y-Druidion District of Denbighshire.

Dwyer, F. C., M.D. Dubl., B.Ch., F.R.C.S. Irel., has been appointed Professor of Surgery, Royal College of Surgeons in Ireland, vice Sir W. Stoker.

Foster, F. W., L.R.C.P. Lond., M.R.C.S., has been appointed Certifying Surgeon under the Factory Acts for the Walton-on-Naze District of Essex.

Giles, Arthur E., M.D., B.Sc., F.R.C.S., M.R.C.P., has been appointed Gynæcologist to the Hospital of St. Francis, New Kent-road, London.

Grace, Gerald, L.R.C.P. Lond., M.R.C.S., has been appointed Surgeon to the Middleburgh District of the Transvaal.

Grahame, Alex., M.B., B.Ch. Irel., has been appointed a Civil Medical Officer to the troops in South Africa.

Lindsay, James F., M.B., C.M. Edin., has been appointed Medical Officer for the prison, Dunblane, vice C. W. Howatson, resigned.

Macdonald, James H., M.B., Ch.B. Glasg., has been appointed Senior Assistant Medical Officer to the Govan District Asylum, Crookston, near Glasgow.

Pierce, R. W. C., B.Sc., M.B. Lond., D.P.H. Camb., has been appointed Medical Officer to the Guildford, Godalming and Woking [illegible]

[illegible] M.R.C.S., has been appointed [illegible] Factory Acts for the Warlingham [illegible]

Raper, M. H., M.D. Lond., L.R.C.P. Lond., M.R.C.S., has been [illegible] der the Factory Acts for the Great [illegible]

Ree[illegible] L.R.C.P. Lond., L.S.A., has been [illegible] Newtown and Llanidloes Union Workhouse, Caersws, Mont.

Robinson, W. E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer and Public Vaccinator for the Sonning District, Wokingham Union, vice B. Brooks.

Smith, Alfred Charles Festing, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed to the temporary charge of troops at Bull Point, Devonport.

Tighe, John V. G. B., has been appointed Second Assistant Medical Officer to the North Riding Lunatic Asylum, Clifton, York.

Young, Archibald John, L.R.C.P., L.R.C.S. Edin., L.F.P. & S. Glasg., has been appointed Medical Officer of Health by the Whitefield District Council, vice A. T. Dochard, resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

Barnwood House Hospital for the Insane, Gloucester.—Junior Assistant Medical Officer. Salary £150 per annum (rising to £170 after the first year) with board, &c.

Bradford Royal Infirmary.—Dispensary Surgeon, single. Salary £100 per annum, with board and residence.

Brighton Throat and Ear Hospital, Church-street, Queen's-road.—Non-resident House Surgeon for six months. Salary at the rate of £75 per annum.

Bristol General Hospital.—Assistant House Surgeon. Salary £50 per annum, with board, residence, &c.

Burton-on Trent Infirmary.—House Surgeon. Salary £150 the first year and £170 the second year, with furnished rooms, coal, and gas free.

Cancer Hospital, Fulham-road, S.W.—House Surgeon. Salary £70 per annum, with board and residence.

Cardiff Infirmary.—Assistant House Surgeon for six months, renewable. Salary at the rate of £75 per annum, with board, washing, and apartments.

Chelsea Hospital for Women, Fulham-road, S.W.—Resident Medical Officer, unmarried. Salary £60 per annum.

Chesterfield and North Derbyshire Hospital and Dispensary.—Resident House Surgeon. Salary £110 per year, with board, apartments, and laundress.

City of Sheffield Hospitals.—Resident Medical Superintendent. Salary £250 per annum, with board, lodging, and attendance.

County Asylum, Prestwich, Manchester.—Assistant Medical Officer, unmarried. Salary £150 per annum, increasing to £250, with board, apartments, and washing.

County Asylum, Whittingham, Lancashire.—Junior Assistant Medical Officer, unmarried. Salary £150, increasing to £200, and on promotion to £250, with furnished apartments, board, washing, and attendance.

Dental Hospital of London, Leicester-square.—Assistant Dental Surgeon.

East London Hospital for Children and Dispensary for Women, Shadwell, E.—Assistant Surgeon.

Farringdon General Dispensary and Lying-in Charity, Bartlett's-buildings, Holborn-circus, E.C.—Resident Medical Officer. Salary £120 per annum, with residence, attendance, coals, and gas, and permission to take resident pupils.

Guardians of St. Mary, Islington.—Medical Officer. Salary £100 per annum.

[illegible] e Throat, Golden-square, W.—Senior [illegible]

[illegible] quare, London, W.—House Physician [illegible]

[illegible] lor Assistant House Surgeon. Salary [illegible]

[illegible] Sheffield.—House Surgeon, unmarried. [illegible] board, lodging, and washing.

[illegible] —House Surgeon. Salary £100. Also [illegible] House Surgeon, £70, with residence, board, &c.

London County Asylum, Hanwell, W.—Junior Assistant Medical Officer. Salary £150 per annum, with board, furnished apartments, and washing.

London Temperance Hospital.—Assistant Surgeon. Honorarium 50 guineas a year.

Manchester Royal Infirmary.—Resident Surgical Officer, unmarried. Salary £150 per annum, with board and residence.

Metropolitan Borough of Lewisham.—Medical Officer of Health and Public Analyst. Salary £800 per annum.

Miller Hospital and Royal Kent Dispensary, Greenwich-road, S.E.—Junior Resident Medical Officer. Salary £80 per annum, with board, attendance, and washing.

National Hospital for Diseases of the Heart, Soho-square.—Physician.

Parish Council of Applecross, Loch Torridon District.—Medical Officer and Vaccinator. Salary £95, free house accommodation and other emoluments.

Rotherham Hospital.—Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing.

Royal Portsmouth Hospital.—Assistant House Surgeon. Salary £50 per annum, with board and residence.

Royal Sea Bathing Hospital, Margate.—Assistant Resident Surgeon. Salary £60 per annum, with board and residence.

Royal Surrey County Hospital, Guildford.—Assistant House Surgeon. Salary £50, with board, residence, and laundry.

St. Mary's Hospital, Quay-street, Manchester.—Two Medical Officers, Senior and Junior. Salary £70 and £65 respectively, with board and residence.

Southport Infirmary.—Resident Junior House and Visiting Surgeon (unmarried), for six months. Honorarium at the rate of £60 per annum, with residence, board, and washing.

Stockport Infirmary.—House Surgeon. Salary £100, with residence, board, and washing. Also Junior Assistant House Surgeon for six months. Salary at the rate of £24 per annum, with board, washing, and residence.

Sunderland Infirmary.—House Physician and House Surgeon. Salary £100, with board and residence, increasing by £15 annually for three years.

Swansea General and Eye Hospital.—Resident Medical Officer. Salary £75 per annum, with board, apartments, washing, and attendance.

The Chief Inspector of Factories gives notice of a Vacancy as Certifying Surgeon under the Factory Acts at Melbourne, in the County of Derby.

West Ham Hospital, Stratford, E.—Junior House Surgeon. Salary £75 per annum, with board, residence, &c.

Weston-super-Mare Hospital and Dispensary.—Medical Officer to the Provident Dispensary. Salary £100 per annum, with board, lodging, and washing.

Wrexham Infirmary.—House Surgeon. Salary £100 per annum, with board and washing.

Births, Marriages, and Deaths.

BIRTHS.

Bowie.—On April 23rd, at Hertford street, Mayfair, the wife of Alex Bowie, M.D., C.M., L.R.C.P. Edin., of a son.

Kirton.—On April 21st, at Ashville, Honor Oak [illegible] C[illegible]

Long[illegible] L[illegible]

Mac[illegible] B[illegible] Government Board, Ireland, of a son.

MARRIAGES.

Cooper—Day.—On April 17th, at St. Stephen's, Gloucester-road, by the Rev. F. W. Worsley, M.A., Charles Edward Cooper, B.A., M.B. Cantab., of Ivybridge, S. Devon, younger son of the late Joseph Cooper, of Colyford, Devon, to Fanny Elizabeth, third daughter of R. Newcombe Day, of Harlow, Essex.

Hulke—Hawkins.—On April 17th, at St. Barnabas's, Kensington, Sydney Backhouse Hulke, F.R.C.S. Eng., third son of the late Frederick Thomas Hulke, of Admiralty House, Deal, to Irene Beatrice, youngest daughter of Major General E. L. Hawkins, late R.A.

Mavor—Gower.—On April 16th, at St. Mary Magdalene's, Enfield, William S. Mavor, M.D., of Waltham-cross, to J. Lillias Gower, eldest daughter of the late Edwin Gower, of Theobalds, Waltham-[illegible]

[illegible] Christ Church, Pitsmoor, [illegible] Lond., M.R.C.S., L.R.C.P. [illegible] rd daughter of John James [illegible]

[illegible] Christ Church, Longcross, [illegible] Mabel Catherine, daughter [illegible]

DEATHS.

Bampfylde.—On April 22nd, James Bampfylde, M.R.C.S. Eng., L.S.A. Lond., D.P.H. Eng., aged 36, youngest son of the late Major Bampfylde of Bath.

Barclay.—On April 17th, at Sumner-place, S.W., John Barclay, M.D., F.R.C.P., aged 81.

Ogle.—On April 19th, at Charlestown, Natal, Arthur W. Ogle, M.R.C.S., aged 48.

Tanner.—On April 21st, at Reading, Charles Kearns Deane Tanner, M.D. Irel., M.P.

Tebay.—On March 25th, 1901, at Manoas on the Amazon river, S. America, Michael Kemble-Tebay, M.R.C.S. Eng., L.R.C.P. Lond., aged 30, only son of Emily and the late M. J. Tebay, M.R.C.S. Eng., L.S.A., of Woburn-hill, Addlestone, Surrey.

Watkins.—On April 21st, at Towcester, Edwin Thomas Watkins, M.D. (late R.N.), of Cambridge-gardens, Notting hill, W., aged 76.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

THE LEICESTERSHIRE SAMARITAN INSTITUTE FOR DISEASES OF WOMEN.

A CORRESPONDENT, who is a medical man, has forwarded to us the following circular which was sent to him. He informs us that he knows nothing of the presumable sender—namely, the practitioner whose name appears at the bottom of the circular.

"Leicestershire Samaritan Institute for Diseases of Women,
1A, Bowling Green-street, Leicester.

DEAR SIR,—I know how difficult it is (however willing one may be) to thoroughly examine and treat cases of uterine mischief that one may meet with on general practice. Lack of time prevents the busy practitioner taking up and treating many cases that would rapidly improve under appropriate local treatment; and the inadequate remuneration one receives for contract work of all kinds would not cover the cost of diagnostic instruments, let alone compensate for the time taken up in the work. Again, lack of material in the shape of uterine cases prevents many taking that interest in gynæcology which is essential to success. By sending such cases to an institute where they may be taken properly in hand the already heavy burden of the practitioner may be lightened. I inclose six free tickets for use at the out-patient department and venture to hope that you will make use of them in suitable cases. I have accommodation for a limited number of in-patients where operation is necessary. Yours faithfully,

JOHN SIDES D. MACCORMAC."

We cannot find the name of the above institute in the list of charities given in Burdett's "Hospitals and Charities," in the "Annual Charities Register and Digest," or in the list of provincial hospitals given in the "Medical Directory," so that we are unable to form any idea as to its status. But whatever this be we do not think it is fitting for a charitable institute to tout for patients in any way. More especially do we consider it most objectionable for the medical officer, or one of the medical officers, to act as tout and to write circulars to his medical brethren implying that they do not know their own business. The six free tickets, we observe, are endorsed with a notification that a sum of 1s. is charged for each visit to defray the cost of medicine, bottles, &c. Perhaps the secretary of the institution, if such official there be, will kindly send us a report of the working of the charity, if one is published. If there is no secretary and no report, possibly Mr. John Sides D. MacCormac will give us some further information as to the members of the staff, what are their qualifications, and what are their claims to possess gynæcological knowledge superior to that of the duly qualified general practitioner.

HOME NURSING.

To the Editors of THE LANCET.

SIRS,—I am about to deliver a course of six lectures on home nursing to the probationers and others at the hospital at which I am house surgeon. The syllabus will be that given in Caird and Cathcart's Manual—i e., 1, the Sick Room; 2, Infection and Disinfection; 3, 4, and 5, Details of Nursing; 6, Application of Local Remedies. Can you or some of your readers advise suitable books written on the above lines?

I am, Sirs, yours faithfully,
April 24th, 1901. H. S.

THE EFFECTS OF THYROIDIN.

To the Editors of THE LANCET.

SIRS,—Will some reader who has experience inform me where I can procure information on the subject of poisoning by excessive doses of thyroidin? The subject of inquiry took three tabloids of B. & W.'s preparation three times a day for 2—3 months. He suffered from intermittent pulse, from neuralgic pains in the loins, from loss of power in the legs (especially at night), and from intoxication after very small quantities of whisky (the intoxication affecting the legs only). It was taken with the idea of reducing weight and this it certainly achieved. The result was a reduction of two stones in weight (about), a feeling of *bien-aise*, and an increase of appetite. It has been given up for nearly two years with certain benefit, but not cure, the leg weakness persisting. There is also inability to take strychnia and other astringents. I have been advising the patient, but have not met with any literature.

I am, Sirs, yours faithfully,
April 23rd, 1901. K. E. M.

THE CERTIFYING OF STILL-BORN CHILDREN.

ON April 16th Mrs Nora Lunn appeared before Mr. Paul Taylor at Southwark Police-court to answer a charge of wilfully and falsely making a declaration under the Births and Deaths Registration Act of 1874 to the effect that a certain child born alive was still-born, knowing that such declaration was false. The defendant pleaded guilty but said that she did not know that she was doing wrong. This was her first offence. The child lived barely an hour and the mother was anxious not to lose the parish relief. Mr. Paul Taylor fined the defendant £10 or in default six weeks imprisonment, saying that for a midwife to give a false certificate might lead to crime upon a wholesale scale. We quite agree with the magistrate's remark and in addition we consider that it is a perfect scandal that midwives should be allowed to give death certificates at all. The whole system of death certification is in a hopelessly unsatisfactory condition and the present laws dealing with the system need to be revised. We must confess that we do not understand Mrs. Lunn's remark about parish relief. Surely in Southwark parish relief is not granted to anyone having a still-born child. If so it seems to us to be a premium upon murder. If it is not so Mrs. Lunn's remark has no meaning.

"THE TREATMENT OF THREAD-WORMS."

To the Editors of THE LANCET.

SIRS,—In reply to the letter of "Worms" in THE LANCET of April 20th, p. 1179, I recommend him to administer balsam of copaiba (about seven minims) three times a day either in capsules or as a mixture with a small dose of castor oil two or three times a week. In the course of a fortnight he will, I think, have no reason to regret the trial. By this time probably no living worms will be passed. Solution of the perchloride of iron should then be given.

I am, Sirs, yours faithfully,
Wanstead, N.E., April 23rd, 1901. FRANK ABGLES.

"MEMORIAL TO THE LATE DR. ARCHIBALD HAMILTON JACOB."

AMOUNT already announced, £359 9s.

	£	s.	d.		£	s.	d.
Mr. M. A. Brennan ...	1	1	0	Mr. Graves Stoker... ...	1	0	0
Mr. P. Cahill	0	10	6	Dr. G. Peirce	1	1	0
Mr. C. A. Skelly	1	1	0	Dr. R. G. O'Flaherty ...	1	1	0
Mr. J. Lentaigue	2	2	0	Dr. J. Andrews	1	0	0
Miss M. Brennan	1	1	0	Mr. D. McEniry	0	10	6
Mr. M. Strahan	1	0	0	Dr. C. B. Ball	2	2	0
Mr. J. E. Burton	2	2	0	Dr. J. J. Cranny	2	2	0

Honorary treasurers: Sir Charles A. Cameron, C.B., 51, Pembroke road, Dublin; and Mr. L. H. Ormsby, Vice-President of the Royal College of Surgeons in Ireland, 92, Merrion-square, Dublin. *Honorary* Secretary: Mr. George F. Blake, Royal College of Surgeons, Dublin. As the list must shortly close intending subscribers should send in their subscriptions as soon as possible.

INSTANTANEOUS PHOTOGRAPHY.

MR. EDWARD F. GRÜN, M.R.C.S. Eng., has recently succeeded by means of a special lens of his own invention in taking photographs of stage performances from the auditorium by ordinary stage illumination. The lens is said to be 50 times faster than any yet made. He has sent to us a specimen print of a scene from *Floradora*.

"THE CASE OF MR. LOUIS FERDINAND DODS: AN APPEAL."

To the Editors of THE LANCET.

SIRS,—On behalf of Mr. Dods I beg to thank you for inserting his appeal in THE LANCET of April 20th, p. 1161, and for your most excellent annotation, p. 1153. At the request of Mr. Walsham, the honorary treasurer of the fund, I now beg to send you a first list of contributors. Contributions may be forwarded to Mr. W. J. Walsham, 77, Harley-street, W. Cheques to be crossed London Joint Stock Bank Limited.

I am, Sirs, yours faithfully,
London, April 24th, 1901. JOSEPH E. S. KING.

	£	s.	d.		£	s.	d.
Sir Thomas Barlow ...	5	5	0	Mr. Percy G. Lodge ...	2	2	0
Sir T. Lauder Brunton ...	5	5	0	Mr. Rayley Owen	2	2	0
Sir Thomas Smith	5	0	0	Dr. W. Domett Stone ...	1	1	0
Dr. George Danford Thomas	5	5	0	Mr. Percy A. Storey ...	5	0	0
Mr. Barr Meadows	1	1	0	Mr. W. P. Thornton ...	1	1	0
Dr. Brisbane	1	1	0	Mr. W. J. Walsham ...	5	5	0

H. J. H.—The organisation of the hospital fits it to be a training school for nursing probationers, but the number of beds is small. Our correspondent will find the subject thoroughly dealt with in Sir Henry Burdett's book, "The Nursing Profession; How and Where to Train."

India Rubber (Manchester).—If our correspondent will consult his usual medical attendant he will be able to procure all the information he needs about the watering-place in question.

A. M. S.—We do not give medical advice.

During the week marked copies of the following newspapers have been received:—*Manchester Courier, Birmingham Post, Surrey Times, Scotsman, Eastern Daily Press, Londonderry Gloucester Journal, Halifax Courier, Western Times (Exeter), castle Chronicle, Norwich Eastern News, Herts Advertiser, Advertiser, South Wales Echo, Manchester Guardian, Herald, Western News (Plymouth), Baptist, Court News, Standard, Lancaster Guardian, Bridge of Allan Gazette, Post, Grimsby Gazette, Weekly Free Press and Aberdeen He Wolverhampton Weekly News, Callander Advertiser, North (Darlington), Kentish Observer, Daily Chronicle, Times of I Pioneer Mail, Citizen, Builder, Architect, Reading Mercury, Government Chronicle, City Press, Hertfordshire Mercury,* *Journal, Sligo Independent, Local Government Journal, Surrey Advertiser and Standard, Weekly News Budget, Royal Cornwall Gazette, Hong-Kong Telegraph, Clifton Chronicle, South African News, Manchester Chronicle, Windsor Chronicle, Malvern Gazette, Weekly Times, Essex Newsman, Worksop Guardian, People's Journal (Forfar), Doncaster Chronicle, Bury Free Press, &c., &c.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 25th, 1901.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain fall.	Solar Radia in Vacuo	Maximum Temp Shade.	Min Temp	Wet Bulb	Dry Bulb	Remarks at 8.30 A.M.
pril 19	30·20	SSW	...	107	66	43	45	53	Hazy
" 20	30·02	E	...	112	69	47	49	57	Fine
" 21	29·97	S.E.	...	112	73	48	52	62	Fine
" 22	29·82	S E	...	118	75	55	53	63	Fine
" 23	29·86	SSE	...	117	78	53	53	61	Fine
" 24	29·98	ENE	...	112	71	53	53	61	Hazy
" 25	29·90	ENE	...	114	66	51	51	56	Cloudy

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (29th).—London (2 P.M.), St Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30

Samaritan M.), Chelsea (2 P.M.),

(2 P.M.), Ro 2 P.M.), Soho-square

Gt. Northern Orthopædic (4 P.M.),

(2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

EDNESDAY (1st).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.)

HURSDAY (2nd).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.)

(1.30 P.M.)

London

logical, 2

St. Mark's

IDAY (3rd

Thomas's

cross (3 P

(2 P.M.), O

Northern

Throat (2

TURDAY

St. Thomas

Charing-cr

London Th

t the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the tral London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

DNESDAY (1st).—OBSTETRICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Dr Jardine, Dr. M. Kerr, Dr. Jennings, and others. Adjourned Discussion on Dr. E. W. Hey Groves's paper on the Pathology and Treatment of Puerperal Eclampsia, with special reference to the Use of Saline Transfusion.

RSDAY (2nd).—HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne-street, Edgware-road, W.)—Mr. W. H. Dolamore: The Importance of the Deciduous Teeth as a Factor in the Health of the Child.

PHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M. Cases and Specimens will be shown by Mr. Nettleship (for Dr. Wood), Mr. G. W. Roll, Mr S. Snell, Dr. R. D. Batten, Mr. G. Hartridge, Mr. A. S. Percival, Mr. W. Lang and Mr. C. Blair. 8.30 P.M. Meeting.

RTH EAST LONDON CLINICAL SOCIETY (Tottenham Hospital).—P.M. Discussion on Some Complications of Pregnancy and the Puerperium (opened by Dr A. Giles).

DAY (3rd).—WEST LONDON MEDICO CHIRURGICAL SOCIETY (West London Hospital, Hammersmith road, W.)—8.30 P.M. Papers:—Dr W. Hunter: The Infective Nature and Septic Origin of Pernicious Anæmia.—Dr. S. Melville: Epidemic Stomatitis.—Dr. C. Buttar: Thrush of the Lung.

RYNGOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.)—P.M. Cases and Specimens will be shown by Dr. B. Baron, Dr. Tilley, and Mr. Waggett.

WEST KENT MEDICO CHIRURGICAL SOCIETY (Royal Kent Dispensary, Greenwich road, S.E.)—8.45 P.M. Presidential Address:—Dr. S. Sunderland: Uterine Hæmorrhage. To be followed by a Smoking Concert.

AND (Physiological

hibition of Speci

Dr. H. Johnson,

ton: (1) Additiona

: A Contribu-

io.—Mr J. H.

of the Hydatifo Nature

special referenc with

didymis.—Prof Epi-

Illustrated by th n, as

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (29th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies street, W.C.).—4 P.M. Mr. M. Morris: Consultation. (Skin.)

TUESDAY (30th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies street, W.C.).—4 P.M. Dr T. Williams: Consultation. (Medical.)

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Dr. A. Macfadyen: Cellular Physiology, with Special Reference to the Enzymes and Ferments.

WEDNESDAY (1st).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies street, W.C.).—4 P.M. Conversazione.

THURSDAY (2nd).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.)—4 P.M. Mr. Hutchinson: Consultation. (Surgical.)

FRIDAY (3rd).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies street, W.C.)—4 P.M. Mr. R. Lake: Consultation. (Ear.)

ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Dr. C. Mercier: Memory.

EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them! Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Communications, Letters, &c., have been received from—

A.—Dr. G. N. Adams, Kenfig Hill; Mons. J. Astier, Asnières, France; A. W. B.

B.—Mr. J. B. Bate, Isleworth; C. Birchall, Ltd., Liverpool; Miss E. Burnand, Lond.; Burton-on-Trent Infirmary, Secretary of; Dr. Byrom Bramwell, Edinburgh; British Power, Traction, and Lighting Co., York; Messrs. J. Beal and Sons, Brighton; Messrs. Braun and Co., Lond.; Mr. D. B. Balding, Royston; Mr. A. A. Bradburne, Farnborough; Messrs. Batty, Ford, and Buckley, Manchester; Dr. P. Boobbyer, Nottingham; Mr. W. Brooks, Leicester; Mr. J. C. R. Braine-Hartnell, Stroud.

C.—Mr. G. W. Collins, Wanstead; Mr. W. B. Croskery, Eckington; Mr. E. Treacher Collins, Lond.; Dr. Clouston, Edinburgh; Century Thermal Bath Cabinet, Lond.; Dr. Chipault, Paris; Cardiff Infirmary, Secretary of; Cantab, Lond.; Dr. R. Coombe, Exeter; Chester General Infirmary, Secretary of; Miss Cox, Broadstairs; Church Missionary Society, Lond.; Dr. C.; Mr. J. Cantlie, Lond.; Miss Cuffe, Woodhall Spa.

D.—Dr. W. Lee Dickinson, Lond.; Colonel Day, R.A.M.C., Edenberg.

E.—Dr. C. R. Elgood, Windsor; Dr L. Elkind, Lond.; Electric Glow Lamp Co., Lond.

G.—Dr. Major Greenwood, Lond.; Messrs. W. Gaymer and Son, Attleborough; General Post Office, Lond., Secretary of; Mr. Walter Gibb, Ipswich.

H.—Dr. J. Hurd-Wood, Farnham; Mr. Jonathan Hutchinson, Lond.; Dr. W. Horrocks, Bradford; Mr. John Harrold, Lond.; Hull Royal Infirmary, Secretary of; Mr. J. Basil Hall, Bradford; Mr. Nelson Hardy, Lond.; Messrs. R. Heaton and Son, Burslem.

I.—International Time Recording Co., Lond.; *Indian Medical Record*, Calcutta; Ingham Infirmary, South Shields, Secretary of.

J.—Jessop Hospital for Women, Sheffield, Secretary of; *Journal of Gas Lighting*, Editor of.

K.—Dr. J. R. Kaye, Wakefield; Mr. R. C. B. Kerin, Lond.; Messrs. R. A. Knight and Co., Lond.

L.—Mons. H. Le Soudier, Paris; Mr. Percy Light, Birmingham; Dr. F. Lastaria, Lucera, Italy; Mr. K. Lal, Lucknow; Dr. T. Laird, Heywood.

M.—Señor J. Martinez, Jerez de la Frontera, Spain; Megrowitz Manufacturing Co., New York; Messrs. Maple and Co., Lond.; Dr. A. Morison, Lond.; Mr. T. H. Morse, Norwich; Lieutenant-Colonel R. D. Murray, Clifton; Maltine Manufacturing Co., Lond.; Dr. J. Marnoch, Aberdeen; Messrs. Macmillan and Co., Lond.; Mr. W. McGee, Dublin; Mr. W. Martindale, Lond.; Mundy's Advertising Offices, Birmingham; Mr. C. G. Stuart Menteath, Hawarden; Mr. H. H. Marks, Lond.

N.—National Hospital for Diseases of the Heart, Lond., Secretary of; New Sydenham Society, Secretary of; Mr. H. Needes, Lond.; Mr. F. C. Needes, Lond.

O.—Mr. C. A. P. Osburne, Old Catton; Messrs. Orridge and Co., Lond.

P.—Mr. Y. J. Pentland, Edinburgh; Principal, Westbury-on-Trym; Parish of St. Mary, Islington; Protene Co., Lond.; Mr. F. T. Pain, Lond.; Mr. C. J. Palmer, Mansfield Woodhouse; Dr. Robert Park, Glasgow; Messrs. G. Pulman and Son, Lond.; Messrs. Peacock and Hadley, Lond.; Dr. F. M. Pope, Leicester.

R.—Mr. B. T. Reid, Oldham; Messrs. Reynell and Son, Lond.; Royal Portsmouth Hospital, Secretary of; Mr. E. J. Reid, Lond.; Dr. C. Roberts, Leicester; Mr. Mayo Robson, Leeds.

S.—Mr. H. W. Spaight, Strood; Society for the Study of Disease in Children, Lond., Secretary of; Messrs. Street and Co., Lond.; Sanitas Co, Lond.; Societé Mutuelle de Publicité, Paris; Swansea Hospital, Secretary of; Dr. M. Serrati, Venice; Messrs. W. Symington and Co., Market Harborough; Mrs. Skinner, Winchelsea; Mr. F. H. Slade, Manchester; Messrs. W. B. Saunders and Co., Lond.; Mr. A. Saaler, Lond.; Scholastic, Clerical, &c., Association, Lond.; Messrs. G. Street and Co., Lond.; Messrs. R. G. Shaw and Co., Lond.

T.—Dr. C. Bell Taylor, Notts; Mr. A. H. Tubby, Lond.; Dr. F. M. Turner, Lond.; Triple Qualification Board, Scotland, Secretary of.

U.—University of Durham College of Medicine, Newcastle, Secretary of.

V.—Mr. J. W. Vickers, Lond.; Mons. T. Vacher, Lanslebourg.

W.—Dr. W. K. Walls, Manchester; Dr. T. R. C. Whipham, Lond.; Dr. A. Wauchope, Glasgow; *Westminster Gazette*, Advertisement Manager of; W. F. W. W.; Messrs. Watkins and Osmond, Lond.; Weston-super-Mare Hospital, Secretary of; Wrexham Infirmary, Secretary of; Messrs. Wright, Layman, and Umney, Lond.; West Ham Hospital, Secretary of; Mr. Vincent Wood, Lond.; Dr. W. Essex Wynter, Lond.

Z.—Messrs. A. and M. Zimmermann, Lond.

Letters, each with enclosure, are also acknowledged from—

A.—A. W. L J.; A. W. D.; A. W. H.; A. C. P.; A. J. R. O.

B.—Mr. W. Bernard, Londonderry; Messrs. Baylis, Lewis, and Co., Worcester; Brin's Oxygen Co., Lond.; B. G.; Mr. W. Bird, Bunbury; Mrs. B., Lond.; Mr. W. G. Bott, Lond.; Mr. L. Browne, Lond.

C.—Mr. P. J. Cammidge, Leeds; Chelsea Infirmary, Clerk of; Dr. C. E. Cooper, Harlow; Mr. P. J. Calnan, Syston; C. W. H.; County Asylum, Prestwich, C. E. W.; Dr. E. K. Campbell, Lond.; Cumberland Infirmary, Carlisle, Secretary of.

D.—Mr. R. Davis, Lond.; D. W.; Messrs. H. Dawson and Co., Lond.; Doctor, Hove; Messrs. S. Deacon and Co., Lond.; Messrs. Derry and Sons, Nottingham.

E.—E. C. W.; E. B. H.; E. S.; Dr. G. L. Eastes, Lond.; E. M. H.; Messrs. F. Ealand and Co., Bath; E. A. B.

F.—Mr. J. M. Forster, Chathill; Fellows Manufacturing Co., Lond.; F. W. E. H.; F. R. G.; F. F.; Mr. W. H. Ferrier, Johnshaven; Mr. D. B. Foley, Wombwell.

G.—Dr. W. H. Gregory, Beverley; Messrs. Gilyard Bros., Bradford; Mr. J. Gray, Edinburgh; G. F. V.; Dr. Greene, Amesbury; Guildford Rural District Council, Clerk of; Glasgow Samaritan Hospital, Secretary of.

H.—Dr. J. W. Hunt, Hendon; Mr. J. J. Hanly, Oakhill; H. T.; Mr. J. Heywood, Manchester; Dr. A. Holt, Lond.; H. S. B.; Mr. C. E. Humphreys, Llanfair; H. J.; Dr. J. Holmes, Whitefield; H. E. B. D.; H. W. C.; H. C. W.

I.—International Plasmon, Lond.

J.—Dr. J. D. Jenkins, Pentre; J. H. C.; J. C. L; J. H. B; J. H. W.; J. M. C.; J. E.; Mr. W. E. Jolliffe, Rathgar.

K.—Dr. A. B. Kelly, Glasgow; Mr W. Kirwan, Oranmore; Messrs. Kilner Bros, Lond.; Dr. C. F. Knight, Portobello; Dr. J. J. Kotjè, Seymour, Cape Colony.

L.—Lady Superintendent, Broadstairs; Leeds General Infirmary, Treasurer of; L. F.; L. R. G.; Launceston General Hospital, House Steward of; Locum, Sunderland; Locum, Lond.

M.—Mr. S. P. Morton, Liverpool; Manchester Royal Infirmary, Secretary of; M. H. H.; Mr. R. de Martini, Bexhill-on-Sea; Mr. S. Mackey, Manchester; M. E. W.; M. J. O. B.

N.—Northern Medical Association, Glasgow; North Riding Infirmary, Middlesborough, Secretary of.

O.—Dr. G. Ogilvie, Lond.

P.—Mr. F. J. Pearse, Lond.; P. S.; Porbandar State, India, Medical Officer of; Poplar Union, Clerk of; Dr. W. Park, Aberavon; P. S. W.

R.—Mr. F. G. A. Rogers, Cardiff; Dr. J. B. Ryley, Lond.; R. A. N.; Dr. D. T. Richards, [illegible]; Rotherham Hospital, Treasurer of; Mr. Robertson, Lond.; Messrs. W. A. Ross and Sons, Belfast; R. W. E. R., Ealing.

S.—Mr. G. Soutar, Dingwall; Mr. H. J. Satchwell, Lond; Dr. S. Sunderland, Lond.; Saa-bach's News Exchange, Mayenc; Mr. W. P. Smart, Burton-o Trent; Mr. E. S. Sanders West Bromwich; Dr. S.; Messr W. H. Smith and Son, Liverpool Messrs. H. C. Scales and Co. Lond.; S. H. P.; Dr. S.

T.—Dr. R. Thurnam, Blagdon Tower House Retreat, Westgat on-Sea; Mrs. Theobald, Leiceste

V.—Mr. B. Vise, Erith.

W.—Mr. J. R. White, Ipswich Messrs. Willmott, Lond.; M A. H. Wade, Little Marlow Wyleys, Ltd., Coventry; Messr F. Williams and Co., Lond Mr. J. Williams, Bradford; D A. R. A. Wilhelm, Barkley Eas W. H. S.; W. T. B.; W. H. G Dr. E. Wills, Greeley, U.S.A Dr. Waterhouse, Bath; Warn ford Asylum, Medical Superi tendent of; W. E. A.; Dr. W Mr. J. H. Wallis, Babbacombe Messrs. Wilson and Son, Lond Wolverhampton General Ho pital; W. K., Leeds.

EVERY FRIDAY. **THE LANCET.** PRICE SEVENPENCE.

SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

ADVERTISING.

Books and Publications ...	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 6
	Every additional Line	0 0 6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.

Terms for Position Pages and Serial Insertions on application.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not o affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies o should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manag Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom *all letters* relating to Advertisements or Subscriptions should be addresse

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Ad tisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France.—J. ASTIER, 8, Rue Traversière, Asnières, Paris.

A Clinical Lecture

ON

ECZEMA IN RELATION TO AGE.

Delivered at the Medical Graduates' College and Polyclinic on Jan. 9th, 1901,

BY MALCOLM MORRIS, F.R.C.S. EDIN.,

SURGEON TO THE SKIN DEPARTMENT AT ST. MARY'S HOSPITAL, AND LECTURER ON DERMATOLOGY AT ST. MARY'S HOSPITAL MEDICAL SCHOOL.

GENTLEMEN,—Heinrich Heine the poet, when he was on his "mattress grave" suffering from a terrible form of paralysis, used to spend a part of his time in reading medical books about his disease, and, according to Matthew Arnold, one of his friends asked him one day what advantage he supposed this reading would be to him. His answer was that he was preparing to give a lecture in heaven as to the want of knowledge of the doctors on this earth concerning the diseases of the spinal marrow. I think that if Heine were alive to-day and suffered, as he might suffer, from a terrible attack of eczema, with all its tortures and its frightful irritation, he might study the works which are published at the present time and might have given the same answer. The painful truth is that what he said about spinal diseases might equally be said about this particular disease. The various books and papers which are published upon eczema differ enormously in almost all particulars concerning the disease. There are hardly two of them that agree even on a definition. Is it, therefore, to be wondered at that the disease is an exceedingly difficult one to understand? In the whole range of dermatology, as far as my experience goes, there is no subject which at present more eludes our mental grasp than the pathology and treatment of eczema. This statement will doubtless sound discouraging, but we must look the truth in the face, otherwise no progress is possible. Those who have devoted their lives to the work, who have been studying eczema for years, still find the same difficulties that others have found before them. There are difficult points that arise and meet us at every phase of the disease, from the beginning to the end. In my remarks to day I propose to take certain of the commonest forms, those common types which every practitioner meets in his daily work. I do not propose to go into the various theories of eczema or to discuss problems in connexion with them; these are better discussed at congresses, international or otherwise. I would ask you to imagine that we are actually at the bedside of a patient and that we are confronted with problems which we have got to try to solve; the various difficulties that meet us we will discuss in detail according to the different forms The first thing which has to be recognised is that this disease presents certain well-marked differences corresponding to different ages in life I shall divide the subject in this way: (1) the eczema of the infant; (2) the eczema of the young child; (3) eczema at the age of puberty; (4) eczema in the adult; (5) eczema in the adult woman at the change of life; and (6) eczema in the aged.

ECZEMA IN INFANCY.

First, with regard to eczema in the infant We will suppose that the practitioner has attended a woman in her confinement, and that after the child is born the nurse calls his attention to the fact that there is a little circular patch on the scalp. The patch is generally of about the size of half-a-crown, or a little bigger, of a dirty-brown colour, and composed of greasy material which is very adherent to the scalp. The nurse asks what is to be done. The usual answer, or at any rate a very common answer, is that it is of no consequence—that it is nothing, and that it will disappear in the course of time. This little patch is a patch of seborrhœa; sebaceous matter has been secreted and has dried. This little patch is of the greatest possible importance, and it will therefore be well if the practitioner pays considerable attention to it. It is very often the focus from which an eczema of the scalp in an infant will start. The first thing that happens if it is left alone is that around the brownish patch in the centre of the scalp a red areola appears, and from that red areola other circular patches will appear on other parts of the scalp. Now if care is taken to treat this in the very earliest stage I believe that a considerable amount of eczema in the young child will easily disappear. The question is how it should be treated. We have first of all to recognise the fact that in the child there is a great blood-supply to the brain. It is necessary that this should be so, as abundant nutritive material is required for the formation of bone and the building of the brain. Owing to the great vascularity of the scalp the slightest irritant is very likely to convert what is in the first instance a trivial condition into a very acute one and to make the eczema spread from that particular spot. As a rule nurses are very fond of scrubbing the infant very freely with soap-and-water. I think that is much overdone, and I think a word of warning should be uttered by the practitioner, especially if the child has the slightest sign of irritation of the scalp. Washing should not be done with any violence. If a soap be used it should be a superfatted one; it should not be the ordinary yellow soap The scaly material should be treated with the greatest possible gentleness and should only be removed by degrees

Next, should the child's head be kept covered? I think infants' heads are kept far too much covered; and if there is the slightest tendency to any inflammatory condition of the scalp it is better that the child should not wear any form of cap, especially in the house, and when taken out should not be too warmly clad about the head. Friction tends to increase the blood supply and to cause irritation. If the patch of eczema does not disappear it will go on to a more acute condition and will spread in the form of circular patches, not only on the scalp but also on the face. Thence it will come down the front of the chest, and it may pass down behind the ears and so down the neck, and in that way there may be a complete collar formed round the neck Then patches may appear upon the abdomen and the back and subsequently on the limbs. These patches may be red, slightly raised and scaly, and to a slight extent irritable But after a time the disease will suddenly assume an acute character and will pass from the first dry red stage into an exudative stage and there will be discharge. In parts there may be actual vesication or pustulation. It is in a young child that eczema tends more especially to become pustular. In a certain number of days—or it may be hours—the discharge will dry and form crusts, and then the typical condition of eczema of the infant will be met with, with thick crusts all over the scalp and face and scattered about the body. In the later stages there is a considerable amount of irritation. In the case of the adult it is often explained that the eczema spreads by means of scratching, but this cannot be so in a small infant which has hardly strength enough to scratch; therefore there must be some other explanation why these patches spread. Many mothers are often in the habit of tying infants' hands or of enveloping them in bags so as to prevent their scratching themselves. I think it is a wrong and cruel thing to do. If I had an eczema I should not like to have my hands tied or enclosed in bags and I do not see why the defenceless infant or young child should be so treated It must be our endeavour so to modify the process that we can give the child relief without putting it to that extra torture

As regards the treatment of this form of eczema in the first stage, when it is only in circular scaly patches, it is to my mind purely a local condition and requires no constitutional treatment at all The local treatment should be of the very simplest and gentlest character; strong ointments or lotions are not appropriate. The applications should be of an antiseptic character. There is no better one, especially in the first instance, than an extremely weak sulphur ointment—five grains of precipitated sulphur to one ounce of benzoated lard When the discharge stage begins it is necessary to consider what particular factor it is that has converted the simple patchy, dry form into an acute condition That is one of the greatest problems connected with the subject. Every practitioner has his own views on this particular point The probable answer to the question is that it is a complex factor or several factors which produce the change from the simple seborrhœic condition to the acute eczema in the infant. One of the first causes always alleged is that the child is improperly fed, but I have seen eczemas commence and become extremely severe, and go through their other phases and relapse though the child has been fed in every way properly, when it has been taking its mother's milk and the mother is in good health. Therefore, that particular factor at that time need not necessarily be the cause of this sudden change. It is possible that there is something inherent in the skin itself which causes the change, but what that is is an unknown x, something which is added to the original condition which converts it from a quiet stage into an acute discharging one. But a little later, as the child gets older, there are factors which unquestionably have an influence. The first of these is vaccination. We are constantly asked what is the relation between vaccination and the eczema of infants. Now, the usual rule with vaccination officers is that they are not to vaccinate a child who has eczema. What is the reason of that rule which, I believe, is one of the regulations of the Local Government Board? The chief reason is that the vaccination will not take if there is a discharging surface. So that in the acute condition vaccination is not appropriate simply because the vaccination will not take. In some rare instances the acute stage is shortened and moderated by it and the eczema dries up and disappears, apparently under the direct influence of the vaccination. On the other hand, if vaccination is done when there are only circular scaly patches of the seborrhœic type and nothing acute the vaccination as it comes to its height with the fever which is produced will rouse these patches into a state of violent inflammation. This rarely occurs, but it does occur and it ought to be recognised at its true value. Not only will vaccination do it, but other zymotic diseases will. It is not at all an uncommon thing for a child with scaly, dry patches to have them suddenly aroused into activity by an attack of measles. I have seen many such cases. There are other factors which are also irritating and which do harm in a reflex way. One of the commonest of these is intestinal worms. Young children with worms will have their eczema aroused into a state of the greatest possible activity, and it is necessary, therefore, that we should direct our attention to that. If, therefore, we have got a child who is being well fed, who is having food which is appropriate, and in whom the simple, dry, scaly condition has been converted into an acute eczema, what internal treatment can we give which is likely to modify the process and to relieve the symptoms? I believe there is no drug or combination of drugs which has such a good effect internally as mercury in some form. I believe it to be the experience of every general practitioner that if children are out of sorts a small dose of mercury will do wonders for them. Certainly that is the case as far as acute eczema is concerned. Of all the preparations of mercury there is none better than a small dose of calomel. It should be given at bedtime and repeated in two or three nights. So far as the constitutional treatment is concerned it is the best that I know for this condition.

Then as regards local treatment of the acute stage, it is first necessary to do everything in our power to dry up the discharge, and the best way to do that is to apply powder. But if powder be applied to the skin a crust is formed which is sometimes exceedingly difficult to get off, and in the process of trying to get it off the condition is again aroused into activity. Therefore, it is not a bad plan to apply the powder in a muslin bag. Then comes the question what particular kind of powder should be employed—whether it should be simply starch or rice powder, or whether it should be some antiseptic powder. I think that the best way out of that difficulty is to mix them. One part of finely triturated boric acid and one part of starch, and perhaps one part of oxide of zinc, should be taken. These combined make an exceedingly useful drying powder. If it is put into a muslin bag, not too tight, and loosely applied over the head, that will tend to moderate the discharge. Immediately after that something extremely soothing should be applied to check as far as possible the formation of scabs. One of the prescriptions which I am fond of using at that particular stage is what I call "zinc cream." It consists of oxide of zinc, lanoline, olive oil, and lime-water. The proportions best suited for it, I think, are: seven drachms of oxide of zinc, one drachm of lanoline, one ounce of olive oil, and one ounce of lime-water. It will at once be seen that the olive oil and lime-water make carron oil, to which are added oxide of zinc and lanoline. If oxide of zinc be added to the carron oil without the lanoline a separation of the lime-water is obtained which interferes very much with its efficacy. As regards its preparation, the best plan is to mix the olive oil and the lanoline together in a bath, and when it is melted add the lime-water, and then while it is still warm stir in the oxide of zinc. If that is done in rather a large way, and the ingredients are therefore thoroughly mixed, the blandest possible cream will be the result. We know how in the case of burns the carron oil relieves the smarting and the pain, and as we want to do that in this condition it is a particularly useful application for it. To that cream can be added drugs of an antiseptic character, and there is none that I know of that irritates less or answers better in drying up this condition and converting an acute into a subacute stage than ichthyol. A very small quantity should be used. In infants I would begin with half a drachm of ichthyol to three ounces of the cream. Then with regard to the way of applying it. Linen should be torn into narrow strips and should be soaked in this cream and then applied very accurately. The whole of the affected skin surface should then be covered with a very thin gauze bandage to keep it in place. As soon as it begins to dry these strips should be removed and some more should be dipped into the cream and applied as before. As soon as the condition passes into the dried-up scaly stage an ointment is more suitable than the cream, because the cream is exceedingly drying in its effects. Then we come to the use of a simple ointment. I would here say that it is a very common thing to use simple boric acid ointment for it. That is about the most uncertain application I know of. Sometimes it is of use, but sometimes it irritates badly and does an immense amount of harm. On the whole it is too uncertain to trust to in young children. At the next stage, therefore, I suggest weak ammonio-chloride of mercury ointment.

This form of eczema, like all others, is cyclical in its nature. It starts in the way I have described; it comes to its height and then subsides again; but the whole tendency of the condition is to commence again; and in spite of all our treatment, however well directed it may be so far as internal or local treatment is concerned, there are a certain number of cases that go on relapsing again and again, and I do not know of any method of treatment by which these particular cases can be certainly cured. Fortunately the proportion of these stubborn cases is exceedingly small. We know that some adults who are the victims of constant attacks of eczema will tell you that they have had it since they were infants. The disease may become altered in character to some extent when they get older, but still it is clear that if they have been told that they had it when very young it has persisted more or less all through their lives. As I say, in spite of all the schemes which have been suggested, I know of nothing that will ensure non-recurrence. But if we are very careful in the matter of treatment we can reduce the number of those incurable cases to a very small percentage. Accuracy of treatment in early life I believe to be the key of a great deal of the success in future. Individuals may be saved from becoming eczematous subjects in later life if sufficient care with regard to the conditions in infancy and in childhood be observed.

In the more chronic forms of eczema in infancy, when it is not expedient to be constantly giving calomel, small doses of grey powder given as an alterative every night for a time seem to modify the process. I do not think that there is any use in giving very young children alkalies or in attempting to give them so-called specific treatment. Indeed, I know of no drug which can be called specific for the disease, therefore I think I should treat it on general principles as I have indicated rather than attempt a course of arsenic.

ECZEMA IN CHILDHOOD.

Now we will pass on to a little later in life—that is to say, to a child of four, five, or six years of age. Such a child may not have had eczema as an infant. At such an age the disease is also generally of the seborrhœic type. It usually begins with the formation of circular or oval patches of a rough and scaly character upon the cheeks or forehead. These patches are usually passed by as being of no consequence. But here, again, I would urge that they are of great importance and that they should be treated. They are easier to treat when they are quiescent than when they are acute, and a relapse is much less likely if the original scaly condition be treated at the beginning. At this age the question occurs whether a child who is liable to repeated attacks of eczema of this character should go away to school, or whether such child should go to the seaside for the benefit of the general health. First, with regard to going away to school, I think children who have a tendency to this disease are far better treated at home; they are generally under the care of their mother, and are more likely to get well under these circumstances than if they were under the care of strangers I have seen disastrous results from children with a distinct tendency to relapses of eczema going to school With regard to the question of benefiting the general health by going to live at the seaside so as to get rid of this tendency, perhaps the patient has passed through the acute attack, but the parents have had experience of so many attacks in the past that they will ask the medical attendant if the child should be sent to the seaside. The answer depends entirely upon the character of the eczema. If the eczema of early life has left behind enlarged glands, which it may do from the local irritation, and if there is a distinct tuberculous history in the family it is in some instances a particularly wise thing to send the young child to the seaside. I have seen many children who have lost their glandular enlargement, who have got perfectly strong and well, and who have at the same time lost their tendency to relapses of eczema by residence by the sea On the other hand, if the attacks are inclined to be extremely acute then certainly it is not wise to send the child to the sea, especially if there is no enlargement of glands and if there is nothing to suggest the possibility of a tuberculous history.

The next point which I want to deal with is the relation of eczema to teething It has been the custom of the profession to be perfectly certain that teething is answerable for these attacks It has never been perfectly clear in my mind that this is true I have seen some of the worst cases before the teething period ; I have seen some of these children who have been well during the teething period and have been very bad afterwards, so I am doubtful as to what relation teething has to it But the feeling is very strong, and I think the bulk of the profession would say that there is a strong influence in teething.

ECZEMA AT PUBERTY.

There are two chief form of eczema which may commence at puberty One is the seborrhœic form, which may commence upon the scalp and may also attack the face and other parts of the body, apparently by local infection, and the other is the form which is associated with dry skin—xeroderma It is, as a rule, about that time of life that the first signs of eczema occur in connexion with xeroderma In early life it is hardly noticeable ; the skin is usually soft, but as the child gets older, and especially when it comes towards puberty, the skin becomes dry and harsh and a particular form of eczema is associated with it It is not necessarily the result of exposure to cold or to cold winds, but it will come notwithstanding every possible care when the child is not exposed to bad weather. It usually attacks the flexor surfaces—the bends of the elbows and knees This form of eczema requires rather a different kind of treatment from that which occurs in young children. It is essential that the dry condition of the skin should be treated, and this is to be done by emollient baths—that is to say, by soaking the skin in a prolonged bath, and then by softening the dry hard parts by means of glycerine and water in the proportion of five parts of water to one of glycerine This should be well dabbed over the parts which are dry, and it will enable the parts which are inflamed to heal under very simple applications If the eczematous patches are very acute the zinc cream already mentioned, with the addition of some antiseptic, will probably be enough to heal them, but no treatment will be effective unless attention is directed to the xerodermic condition of the skin as a whole

There is another type which at this time of life very often appears for the first time, and that is the form of eczema which alternates with nerve-attacks, more especially with asthma and with the commencement of rheumatoid arthritis When asthmatic attacks are severe it is not uncommon for the eczematous condition to disappear, and *vice versa* when the asthma is quieted the eczema is often bad Again, it is not uncommon for pains in the joints to alternate with acute eczema This group requires special internal treatment. Certain nerve tonics, such as valerianate of zinc, small doses of quinine, and if the case is a very bad one perhaps even small doses of opium, should be given to quiet not only the asthma but also the recurrent attacks of eczema

ECZEMA IN THE ADULT.

Now we pass to a consideration of eczema in the adult. First I would call your attention to a severe general attack of eczema in an otherwise perfectly healthy person ! You may meet with an individual who has never had eczema before and he is in all respects perfectly well. He is suddenly exposed, we will say, to extreme cold. He may have ridden on the top of an omnibus and have become extremely chilled when returning home in the evening ; he may perhaps have had a trifling rigor and next day he will show signs of eczema on various parts of the body This eczema will sometimes come out suddenly so that in a few hours the whole of the body may be attacked by it Especially does it attack the more sensitive and tender parts of the skin—the flexor surfaces of the arms, the backs of the legs, the chest, and the back. I have seen a person become covered all over with discharging eczema in 48 hours after exposure to severe cold In such a case the patient should be put to bed and be covered over with the lightest possible clothes ; his diet should be of a very non-stimulating character, without alcohol or coffee or tea ; and the bowels should be opened by a dose of calomel, followed by a saline in the morning As a remedy I know nothing which is of greater use than small doses of tartarated antimony. This is the particular form in which antimony is of the greatest possible service. It should be given in repeated doses at first ; the second dose should follow an hour after the first, and the third dose three or four hours afterwards, and following that three times a day. A thirty second of a grain is quite enough to produce a marked effect. Here I should like to relate briefly the actual facts of a case illustrating this type of the disease. The patient was a man about 43 years of age, in perfect health, who had never had an attack of gout in his life, who had never had rheumatism or any serious disease except the ordinary diseases of childhood, such as measles, and who had never had eczema One day he went out for a drive in his carriage, apparently in perfect health. When he returned from that drive he told his wife that he felt ill and thought that he had caught cold. Next day he had an acute general eczema over the whole of his body I saw him in consultation on the following afternoon, exactly 24 hours from the time he went for the drive and he was discharging practically from every part of his skin. Now, such an acute attack as that could hardly be explained, I think, by the action of microbes on the skin. I think that the only possible explanation is that it was a sudden nerve storm, a neurosis which took this particular form. Instead of getting a sudden attack of bronchitis or of catarrh he suddenly got a catarrh of his skin. That night he was given four grains of calomel and a saline on the following morning. At 4 P.M. or 5 P.M. a dose of a thirty second of a grain of tartarated antimony was given, and that was repeated again in three hours. The only local treatment he had was that he was put to bed and was powdered all over with oxide of zinc and boric acid. I saw him again on the following afternoon, when there was no discharge whatever ; the parts were absolutely dry and he was covered all over with crusts and scabs as a result of the drying up of the discharge. He had had a very free action of the bowels as a result of the calomel and the saline in the morning, and in every way he expressed himself as being very much better. He went on with the antimony for four days afterwards. When I saw him again at the end of that time all signs had gone except that though there was practically nothing to be seen he was left with the most severe irritation of the whole of the skin. That is, perhaps, one of the most troublesome things which practitioners are called upon to treat—namely, the irritation left behind from a very severe acute attack. The intense dread of another attack coming on produces a state of great nervous excitement Though there is nothing to be seen these patients will scratch and suffer terribly from the irritation, so much so that in some cases it produces a disturbance of the nervous system almost amounting to actual insanity. In the particular case which I have mentioned the man's irritation was fearful, and he said that it was then worse than on the day when the attack was at its height. That was treated for weeks with all kinds of local applications, but nothing whatever did him the slightest good Applications of weak tar and many other remedies were applied, but he did not get any relief from his itching until he went to Schinznach in Switzerland, where he had a course of baths for three weeks He returned free from irritation.

Perhaps this is the place to emphasise the importance of the mineral water treatment in certain forms of this disease.

It is not appropriate to send persons to a mineral water cure during the acute stage, nor is it appropriate to send them during the subacute stage which may follow; but it is appropriate to send them when they are left with only a neurosis as the result of it. I do not say that that is the only form of eczema which is benefited by mineral water treatment, but I think that it is one of the most important.

Eczema and alcohol.—In connexion with general attacks I think a word should be said about eczema and alcohol. I have recently had a case under my care which has brought this prominently before my mind. A man in active business had been in the habit of taking a very fair quantity of alcohol every day for a great number of years, though never in excess. He was suddenly laid up with an acute attack of eczema. He was treating himself for a length of time before he called in his medical attendant, and during that time he was continuing his alcohol Afterwards the alcohol was stopped, and under simple treatment he got well. When he went back to his work he began to take his alcohol as before, and had a second attack of eczema. It was then suggested to him that he should leave off taking alcohol altogether He did so and has not had a return since. I think the relation of alcohol to these attacks is a very important one

Intertrigo.—The next form, which is very common, is the form known as intertrigo, the attacks of eczema which occur round the scrotum and on the inner side of the thighs and about the anus. It usually commences with a circular red patch at the upper and inner side of the thigh, and from the pressure of the scrotum against that patch a corresponding patch will come upon the scrotum. After a little time the patches will spread, and will extend backwards, and will very likely come upon the other side, until at last a red irritable patch will be formed more or less corresponding to the bathing drawers area, spreading up over the abdomen as high as the umbilicus, and then up the buttocks behind. This is an exceedingly painful and irritable form of eczema. It usually occurs in people who take a considerable amount of exercise and sweat freely in that part. In that case it is necessary to curtail the exercise and not to let the patient walk too much. If the condition is very acute or very painful and there are cracks between the scrotum and the thigh the patient should be told to rest for a time in bed. The parts should be bathed freely with an antiseptic lotion and then carefully dried, and an ointment containing a small proportion of sulphur should be applied accurately all over the parts. It is not necessary in this form to give any internal medicine. It is purely local and requires local treatment for its cure.

Varicose eczema—The next form, which is exceedingly common in adults, is the form which is associated with varicose veins, namely, varicose eczema. It commences, as a rule, in a single circular patch, which spreads at its edge. There is usually some discharge and the part becomes exceedingly painful, and perhaps it will prevent the patient from walking. In the course of time it may lead to a varicose ulcer. The treatment is rest in bed, with the leg elevated, especially at night, and the application of an exceedingly useful preparation—namely, Unna's zinc glycerine jelly. I do not know of any application of more use for this particular form of eczema. It is made by mixing oxide of zinc, gelatin, glycerine, and water. It can be got from almost any chemist and the way to apply it is rather important. The little cube should be placed in a galley-pot which is dry; the galley-pot is then placed in a pot of boiling water until the gelatin liquefies. As soon as it liquefies the pot should be taken out of the hot water and allowed to cool a little. As soon as it is sufficiently cool to be put upon the skin it should be painted on by means of a large brush. It is important not to move the brush up and down and from side to side. The brush should always be laid on in one direction, preferably from above downwards, beginning with firm pressure. One single application is enough for any one area. It is not suitable if there is much discharge. The gelatin should be applied all over the vein as well as over the eczematous patch. As the gelatin is drying a little cotton-wool should be put upon it so as to make it dry. Then the patient can put on a sock and drawers and he will remain perfectly comfortable. Usually, if the condition of the skin is not too acute, one application will last three days. It should then be taken off, without the application of water, being peeled off like a kid glove. After washing the skin with an antiseptic lotion such as weak carbolic or tar the gelatin should be re-applied. It is exceedingly useful because it enables a patient with that form of eczema to go about his business. It is also applicable to other forms on other parts of the body. It is particularly useful for the trunk, for the back, and for the chest.

Chronic eczema of the leg.—There is another form of the disease which is exceedingly common which practitioners are constantly called upon to treat—namely, the small circular chronic patches which are usually seen upon the leg. A man may have a little patch which he has had for years. He may have no varicose veins and perhaps it has been his habit every day after his bath to scratch this patch. But all of a sudden, for some reason, it becomes acute and may spread rapidly all up the leg, perhaps also over the body. That is the form which authors have called attention to for many years and it is one that I think is of the greatest possible importance—namely, chronic patch on the leg in middle-aged people. A serious effort should be made to try to get rid of the patch. I saw a practitioner to day who had got an extremely irritable patch about two inches above the outer side of his ankle. He told me that he had had it for years and that he was constantly rubbing it with the other leg, or he scratched it after his bath. I put the drugs which are efficacious for it in the following order: salicylic acid, resorcin, pyrogallic acid, and chrysarobin. These are used in the form of an ointment. I should begin with salicylic acid, 10 grains to the ounce. If that failed I would combine resorcin with it, 15 grains to the ounce. If those two drugs failed I would use pyrogallic acid ointment, five or six grains to the ounce. If, after making the pyrogallic acid stronger it still failed, I should try unguentum chrysarobini of the British Pharmacopœia, but of half strength. The ointment requires to be well rubbed in, and a little should be left on the surface and the parts should be covered with linen and a bandage should be applied. I must leave out many things because time will not permit me to deal with everything.

ECZEMA AT THE MENOPAUSE.

Let us now pass to eczema at the change of life. There are two special forms of eczema which occur at the change of life—and I am taking what I consider to be the commonest, those which come most before practitioners The two forms at this stage are acute eczema of the head and face, which Jameson says are 75 per cent of them. As regards that particular type it comes at the change of life—that very variable period which may extend almost to any length of time. We do not know exactly when the nervous influences of change of life begin; they may begin as early as at the age of 40 years or even earlier. In those women who have had their ovaries removed all the phenomena of change of life are produced prematurely. I have recently seen a woman of only 26 years of age, who has had both ovaries removed, who has had all the phenomena of change of life just as if she were 48 or 50 years of age and who is suffering from the skin troubles associated with that period. There is usually considerable flushing, sweating, and other nervous phenomena, headaches, and disturbances of the digestive tract—dyspepsia and constipation. A spare woman at that time of life suddenly begins to flush in the face, perhaps after taking a meal; later the disorder becomes a little more acute; she gets an acute eczema of the scalp and it spreads down all over her face. For that condition there is no drug or combination of drugs as far as I know which is of such service to relieve the symptoms, not only the eczema but all the symptoms mentioned, as ichthyol. If it is used in the right way it is an invaluable drug, and this is one of the diseases in which it is of the greatest possible use. It is a nasty-smelling drug, therefore every attempt should be made to disguise the odour. If it is given in the form of Burroughs and Wellcome's tabloids, which are covered with sugar, there is no difficulty on that score. It can be given in tabloids covered with keratin which does not dissolve until it gets into the intestine, the result being that the patient does not get eructations of the ichthyol. The doses should be two and a half grains to begin with after each meal. At the end of two or three days it should be increased to five grains, then to seven and a half grains, and then to 10 grains. If the patient tastes it much the stomach has got more than it can digest. In that case the dose should be cut down a little But the effect of the drug in clearing away the symptoms is very extraordinary.

With regard to local treatment, this form of eczema which occurs at the change of life requires rather more active treatment than is needed at any other time. Such cases usually bear fairly strong applications of sulphur and resorcin.

The other form at change of life is the very acute eczema which occurs about the vulva and anus.

ECZEMA IN OLD AGE.

There is a particular form of eczema in old people which is very serious. First of all, as the result of enfeebled vitality old people get an atonic condition of the skin, and with this a form of chronic eczema with short acute exacerbations which does not disappear in the way in which it does in earlier life. In the aged it may worry the patient nearly into madness by the constant irritation, which, in Macbeth's phrase, "murders sleep," prevents the patients from taking their food properly, and so wears them out. Professor Kaposi has called special attention to this matter of interference with the taking of nourishment. He says that the disease produces a vicious circle in this way: As the result of constant irritation and inflammation of the skin there is a reflex irritation of the intestines which prevents the food from being properly digested. The action of the bowels being irregular it reacts upon the condition of the skin; there is thus a reflected condition from one side to the other. Whether it is absorbed from the skin and so into the blood it is impossible to say, but at all events their sufferings reduce these unfortunate people to the most dreadful condition, and it is not at all an uncommon thing for old people to commit suicide on account of their eczema. I have met with several cases of the kind. There is one drug for it, and only one as far as I know, and that is opium. As some philosopher has said, it is the drug of the aged, and we must not be afraid to use it. It is too much the fashion nowadays to be afraid of opium. If it is given at the right time it is one of the most valuable remedies, and the right time is past middle age. If aged persons do acquire the opium habit what harm is this likely to do them? They have not long to live in any case and the drug may make their few days less evil than they would otherwise be. I have recently had a most striking case of a very old man who was brought up to me from the country by his medical attendant. The man's life is intolerable. What is to be done for him? I have had a letter from the medical man, saying: "The remedy which you have given to my patient is of the greatest possible assistance." It was one-third of a grain of opium three times a day. He has taken it for some weeks; and if he continues to take it to the end of his life what harm can it do him? If it interferes with the action of the bowels that effect can be counteracted by aperients. If we cannot cure the disease it is surely something that by means of opium we are able to give the sufferer relief from a condition which makes his life a burden to him.

THE ACTION OF ARSENIC AS OBSERVED DURING THE RECENT EPIDEMIC OF ARSENIC POISONING.[1]

BY SIR T. LAUDER BRUNTON, M.D. EDIN., F.R.S.,
PHYSICIAN TO ST. BARTHOLOMEW'S HOSPITAL.

IF I may be permitted to give a short account of the general action of arsenic upon the body I think I may be able to classify the symptoms observed in the present epidemic of arsenical poisoning so as to render it easier both to remember them and to understand the varieties which have been described. Arsenic belongs to the same chemical group as nitrogen, which not only constitutes nearly four-fifths by volume of the atmosphere, but is an essential ingredient of all living tissues, and may be called the pivot on which all life turns. Other members of the group are phosphorus and antimony, both of which have an action very much like arsenic in many respects, and phosphorus, like nitrogen, is an important constituent of the healthy body. It is not certain whether arsenic acts by replacing nitrogen or phosphorus in the living tissues, and especially in protagon, which is one of the most important constituents of nerves, but it appears to have the power of altering the chemical changes or metabolism which occur in them during life and on which their functions depend. In minute doses it appears to be beneficial, but in large doses it is poisonous and will destroy both animal and plant life, so that in large quantities it will produce in man or animals irritation and inflammation of any part of the body on which it may be applied. This application may be made directly to a part or the arsenic may reach it through the circulation. Thus arsenic, when it is swallowed, reaches the stomach and intestines by direct application, and by irritating them produces vomiting and purging. In the form of dust, as from wall-paper or in making artificial flowers, it may enter the eyes, nose, and air-passages, and thus it may produce conjunctivitis, nasal and respiratory catarrh, and cough; or it may be applied directly to the skin and cause irritation and eruptions upon it. If much diluted it may produce little or no local irritation of the stomach, intestines, or respiratory passages, but from these it may be absorbed by the blood and carried by the blood to every part of the body. When absorbed from the stomach and intestines it is obliged to pass through the liver before it can enter the general circulation, and consequently the largest amount of arsenic is usually found in this organ after death from arsenical poisoning. Whilst circulating in the blood it may act on the heart, muscles, and nerves. But it is not carried by the blood only to these organs, for through the circulation it goes a second time to the stomach, intestines, respiratory passages, and mucous membranes of the eyes and skin. By these organs it is eliminated, and during the process of elimination it may again give rise to irritation in them just as it would do if directly applied. Moreover, John Hunter, Sir Everard Home, and Sir Benjamin Brodie have shown that when arsenic is applied to a wound it produces more violent and more immediate inflammation of the stomach than when the poison is administered internally and that this inflammation of the stomach precedes any appearance of inflammation in the wound.[2] Brodie concludes that "it may be inferred that arsenic, in whatever way it is administered, does not produce its effect even on the stomach until it is carried into the blood." This conclusion is perhaps too sweeping and not strictly true for arsenic in large doses and in a concentrated form, but it is probably quite correct when the poison is taken in moderate or small doses and in a diluted form, as in the beer at Manchester. Whilst circulating in the blood arsenic is carried to every organ and tissue of the body, and affects markedly the nervous system and muscles, the mucous membranes, and skin. It begins to be eliminated by the kidneys within a few minutes of its absorption and is also eliminated by the mucous membranes and skin. If only small doses are taken daily the whole of the poison may probably be daily eliminated, and it may be taken for months without any harm. But if the doses are larger less is eliminated daily than is absorbed, and it becomes stored in the body and produces symptoms of poisoning. During the process of elimination it irritates all the mucous membranes and the skin and produces corresponding symptoms. By irritating the mucous membrane of the stomach it causes loss of appetite, nausea, vomiting, and epigastric pain. In the intestine it produces colicky pains and diarrhœa. By irritating the respiratory tract it gives rise to coryza, cough, hoarseness, huskiness of the voice, oppression of the chest, retro-sternal pain and bronchitis, with occasional hæmoptysis. In the eyes it causes irritation, conjunctivitis, and œdema of the eyelids. In the skin it produces all sorts of eruptions, nettlerash, redness, papules, pustules, vesicles, and boils. Three of the most marked are pigmentation, herpes, and a condition to which the name of "keratosis" has been given, in which the epidermis peels off the palms of the hands and soles of the feet in large flakes. Keratosis is probably due to the local action of arsenic upon the skin, for Ringer and Murrell found that in frogs poisoned by it the cuticle could be readily stripped from the body, and Nunn showed that this is due to softening of the protoplasm in the epidermis, so that it becomes almost completely detached from the dermis. The herpetic eruptions, as well as loss of hair, brittleness or shedding of the nails, excessive sweating and subcutaneous œdema, however, are probably dependent rather upon the action of arsenic on the trophic or nutritive nerves of the skin to which reference will afterwards be made. During its circulation in the blood arsenic acts on the muscles of the limbs, on the muscular fibre of the heart, on the liver and other glandular organs, and especially upon the nerve trunks, although it acts, also to a small extent, on the spinal cord and brain. It thus tends to cause anæmia as well as fatty degeneration of the muscles and of the heart, so that the limbs become feeble and the heart so weak that death may occur from its failure. The liver also undergoes fatty change. The nervous system, and especially the nerve trunks, are especially attacked by the poison. Nerve trunks usually contain fibres having three different functions—namely, sensory, motor, and trophic or nutrient, and all those functions are altered by the inflammation which arsenic produces in the nerve trunks. The alterations are of two kinds; first, the nerves are unable to do the things they ought to do; and, secondly, they do things they ought not to do. The sensory nerves, instead of conveying definite impressions to the brain, become dulled, so that the patient does not feel external objects with the same accuracy that he or she ought, and in consequence complains of numbness and may be unable to distinguish where or what things are, and may thus, for example, be quite unable to sew, or even to write, and may drop things from the hand unwittingly, while the patient may feel as if his feet were walking on wool instead of on the floor. At the same time, the sensory nerves convey to the patient impressions for which there is no real objective ground. He may feel as if pins and needles were running into him or insects were running over him, or he may feel intense burning or pain of all sorts in various parts of the body, and both the skin and the muscles may be so abnormally tender that the slightest touch or pressure is not felt as touch or pressure, but causes the most intense suffering. On account of the weakness of the motor nerves the patient soon gets tired and then certain muscles become so weak as to act only imperfectly, or may become completely paralysed and not act at all. On this account the gait becomes feeble and staggering, the feet drop, the hands drop, the patient becomes unable to walk or to stand, and may be even unable to feed himself, while on account of the diaphragm being weak or paralysed the respiration becomes feeble and imperfect. By stimulating the trophic or nutrient nerves, and perhaps by directly altering the tissue change of the parts themselves, arsenic may at first appear to increase nutrition, so that small quantities render animals or men taking it plumper and more active, their hair grows more thickly and their skin appears clearer than before. But if this point be overpassed the animals or men become thinner and wasted, the skin dry and hard, peeling off in scales and often much pigmented. This pigmentation varies in appearance. It is sometimes slight but general, sometimes patchy, and sometimes so generally diffused and deep in colour as to make the patient appear to belong to a dark-skinned race. The peeling of the skin generally occurs in bran-like scales, but the epidermis may separate from the soles of the feet and palms of the hands in very large flakes. To this the name of "keratosis" is given. Local swellings of an œdematous or dropsical nature may occur in various parts of the body and are particularly noticeable in the eyelids. The spinal cord may also undergo alteration, and some of the neuralgic pains, the loss or perversion of sensations of heat or cold, loss of reflexes and want of coördination in movement, may be partly due to alteration in it as well as to alteration in the nerve trunks. In some cases, although rarely, the brain has been found to be affected and symptoms of melancholia or mania have occurred. The nervous ganglia of the heart may be weakened, and this, along with the feebleness of its muscular fibre, already mentioned as due to arsenic, may lead to syncope or even to death. The nerves which regulate the contraction of blood-vessels are said by Bohm to be paralysed by large doses of arsenic, so that the vessels dilate, especially those of the abdomen, and this, along with the weakness of the heart, explains the low tension of the pulse observed in severe cases during this epidemic. The blood-vessels of the soles of the feet and of the palms of the hands become much dilated, so that the skin of these parts towards the outside becomes very red and at the same time it becomes exquisitely tender and very painful. This condition is known under the name of "erythromelalgia."

---

[1] [illegible] made by Sir [illegible] runton to the Royal Com- [illegible] upon arsenic [illegible] (see p. 1310).

[2] Philosophical Transactions, 1812, Part I, pp. 203, 210.

All the symptoms I have mentioned may occur in chronic arsenical poisoning, but they may not all appear in the same person or to the same extent, for their occurrence may depend upon the quantity of arsenic they have taken, upon the length of time its administration is continued, upon the form in which it is taken, and upon the personal peculiar idiosyncrasy of the person taking it. Small quantities of arsenic, such as one fiftieth to one-tenth of a grain, may be taken by many people for months together with no apparent bad health, but, on the contrary, with better nutrition and increased strength. In these cases it is probable that the whole of the arsenic is eliminated daily as quickly as it is taken, and that there is no storage of it within the body, but if larger quantities are taken, so that the whole is not eliminated, it will gradually accumulate and symptoms of poisoning begin to occur which may become very severe or fatal. Yet if the administration of the drug be stopped before a fatal issue is reached the poison which has already been stored up in the body is gradually excreted and the patient may recover even when apparently at death's door. But during the process of elimination symptoms of sub-acute poisoning may occur and the arsenic which has been stored up for awhile in the body may in passing out through the mucous membranes of the intestine and stomach irritate them and produce vomiting and purging, as in some of Dr. Dixon Mann's cases, three weeks after the arsenic had ceased to be taken.

The effect of arsenic can be modified by the age, strength, and constitution of the patient taking it, women usually being able to take less than men and children very much less than either. Susceptibility to arsenic varies very considerably, and while three minims of Fowler's solution, which is a 1 per cent. solution of arsenic and is the preparation commonly given in medicine, will sometimes cause such symptoms of intestinal irritation as will necessitate its discontinuance, other patients will take 30 minims, or even more, three times a day without any discomfort whatever. The way in which it is given alters its action, so that if five minims of Fowler's solution were given on an empty stomach three times a day it would probably produce irritation of the stomach and intestines, whereas if given when the stomach was full it would be diluted by the food and be absorbed without producing any local irritation whatever. When much diluted in the form of beer the local action of arsenic on the stomach and intestines at the time of taking it is probably very slight and the gastro-intestinal irritation observed during this epidemic was comparatively trivial as compared with the other symptoms and was probably due to irritation of the mucous membrane occurring during its elimination. During the circulation of arsenic in the blood it is not improbable that its action may be determined to one part of the body or to another by other substances taken at the same time. A well-marked instance of this kind of action is known in the case of mercury. Alcohol is well known to have a strong affinity for the nervous structures in the body, whilst that of mercury is much less. But alcohol seems to direct mercury to the nervous system and cause it to act upon them. An example of this is given by the fact that during the preparation of an alcoholic compound of mercury, called mercuric methide, two chemists who were subjected to the fumes were poisoned by the compound and showed signs of nervous disease, one of them becoming maniacal and dying within three months, and the other becoming idiotic and dying after about a year's confinement in a lunatic asylum. Osler has observed that mercury taken along with alcohol seems to have more tendency to produce peripheral neuritis than if taken alone, the alcohol seeming, as it were,—to direct the mercury to the nervous system. If the statements made by some of the patients who have suffered in the present epidemic of this arsenical poisoning as to the quantity of beer they have taken are correct, the amount of arsenic consumed in some cases must have been so exceedingly small as to lead one to ask whether the neuritis can be due to arsenic alone, even though its action may have been directed to the nerves by alcohol or hops, or whether some other poison besides arsenic has not been present in the beer, or whether the arsenic is not present in such a combination as to have a much more deleterious action than that of pure arsenic itself. There are difficulties in accepting the statements of some of the patients as correct, for in the case of Alice Booker, which terminated fatally, and in which Dr. Stevenson separated a weighable quantity of arsenic from the viscera, the patient only admitted having taken less than one pint per diem. It is quite possible that arsenic may be present in beer, combined with either a hydrocarbon or with a proteid, for although it is said not to unite with albumin to form an albuminate it has been found to enter into combination with casein. At present, however, this is only a hypothesis, and Professor Hewitt and I are at present engaged in investigating the subject. It is, however, a research full of difficulties, and if we succeed in obtaining definite results at all it will probably not be until after the expiration of several months at the earliest.

In an epidemic of arsenical poisoning at Würzburg, where the arsenic was contained in bread, only one case of paralysis was observed in 373 cases of poisoning. This extraordinary want of action on the motor nerves when taken in bread as compared with its action when taken along with alcohol in beer or wine tends to substantiate my hypothesis.

I have heard doubts expressed as to whether the epidemic in Manchester was due to arsenic at all, and I confess that when I first went I thought that possibly the symptoms might be caused by organic impurities in beer, such as some of the higher alcohols—e.g., fusel oil, by albumoses, or by furfural. But an examination of the facts has convinced me that the epidemic was due entirely, or almost entirely, to arsenic. No doubt neuritis may be produced by toxins of an *albuminous nature, such as occur in the body in diphtheria*, in plague, and in beri beri, or are found outside the body in diseased grain, such as ergot and maize, producing ergotism and pellagra. But in the present epidemic the cases of illness were distinctly traced to beer. There was no diseased grain used in its production, no evidence of any infective disorder; in fact, there has been no evidence of the presence of anything excepting arsenic, and possibly selenium, that would produce the symptoms. These symptoms, consisting in a combination of gastro-enteric irritation, peripheral neuritis, pigmentation, and eruptions of the skin, are almost characteristic of arsenical poisoning. They occurred in previous epidemics. For instance, in the one which occurred in Hyères, in which a number of persons were poisoned by arsenic in wine, the symptoms were almost identical with those of the present epidemic. In both these epidemics the symptoms may be conveniently classed in the manner adopted by MM. Midal and Ollivier for those observed at Hyères into—(1) digestive, (2) cutaneous, and (3) nervous. In both epidemics the digestive symptoms were not nearly so prominent as would have been expected from the well-known irritant action on the digestive canal which arsenic produces in cases of acute poisoning, and in some cases symptoms of this sort were completely absent. They seem to have been rather more marked at Hyères than at Manchester, a circumstance which one would naturally expect both from the more irritating action of wine as compared with beer on the mucous membrane of the stomach and intestine, and from the larger proportion of arsenic in the wine (0 08 gramme per litre). The digestive symptoms were alike in both epidemics—viz., loss of appetite, vomiting, abdominal pain, and diarrhœa. Retro-sternal constriction or pain was noted in both, and I have mentioned it already along with cough, but at Hyères it was attributed to digestive derangement. In both epidemics the symptoms produced during absorption were slight in comparison with those which occurred during the circulation of the poison in the system and during its elimination. The cutaneous symptoms which occurred were of the most varied kind in both epidemics. In Hyères the forms were so manifold as to exhaust dermatological nomenclature, and they were no less so in Manchester. In both epidemics two of the most striking cutaneous symptoms were pigmentation of the surface generally and separation of the epidermis from the feet and hands in such huge flakes that it seemed as if the whole skin of the soles and palms came off in one piece (keratosis). At Hyères coppery patches on the skin and an eruption the colour of burnt coffee were noticed, but the pigmentation does not appear to have been so dark or so extensive as in some of the cases at Manchester. In both epidemics the nervous symptoms were the most important, and in both cases they were at first attributed to alcohol and not to arsenic. In both epidemics, although numbness and loss of sensation were observed, they were not such prominent symptoms as pain and tenderness, weakness and paralysis. In both pain was a most marked feature, varying in intensity from slight "pins and needles" to most intense agony; and a very striking symptom was extreme tenderness to touch or pressure, so that the patients could not bear the pressure of the bedclothes on their limbs. Extreme tenderness of the calves and other muscles of the body on pinching, as well as the redness and exceeding painfulness of the soles of the feet and palms of the hands (erythromelalgia), which were so marked in the Manchester cases, are less prominently noticed in the accounts of the Hyères epidemic. Something of the same kind seems, however, to have been present, for the patients are said to have complained of pain as if dogs were gnawing their calves and the soles of their feet. In both epidemics the muscular weakness or paralysis, the difficulty in walking, the peculiar gait, and sometimes the complete inability to stand, were all alike. Both resembled each other, also, in the affections of the respiratory system; indeed, with the slight difference indicated already, the symptoms in one epidemic might stand for those of the other. In both epidemics there can be little or no doubt that the symptoms were chiefly, if not entirely, due to arsenical poisoning, for (1) there was an absence of any other sufficient cause; (2) there was sufficient arsenic to cause symptoms of poisoning; and (3) the symptoms corresponded with those which have been observed in cases of chronic poisoning by arsenic taken in other ways.

When I first went to Manchester to investigate the *epidemic I started with the idea that the symptoms of* poisoning were probably due, not to the arsenic in beer, but to some other impurity, but I soon found that the arsenical origin of the epidemic could be proved beyond a doubt. The present epidemic is certainly due to contamination of beer through glucose and invert sugar made by one particular firm, who had been supplied with sulphuric acid containing a very large quantity of arsenic. The extraordinary number of cases of peripheral neuritis which have occurred in this epidemic, together with the fact that this disease has been specially observed and described by two Manchester men, the late Professor Ross and Professor J. Dreschfeld, naturally raises the question whether the peripheral neuritis, a disease which is commonly attributed to alcohol, is not caused in most, if not in all, cases by arsenical poisoning and whether poisoning by arsenic may not have been going on to a greater or less extent in Manchester for many years. A good deal may be said on both sides of this question. On the one hand, it cannot be denied that peripheral neuritis may be caused by toxins, for it is found in diphtheria where no poison except that of diphtheria has gained access to the organism, and Sidney Martin has shown that the diphtheritic toxin, apart from the bacillus, will produce neuritis in animals. But, on the other hand, although it is commonly supposed that alcohol will cause the disease, it is by no means certain that ethylic alcohol will do so, and alcoholic neuritis in spirit-drinkers may possibly be due to other substances than ethylic alcohol. A remarkable observation was made to me in a letter by Sir William Gairdner. About 16 years ago he was examining in Manchester and went through the wards of the late Dr. Ross. He saw there several cases of peripheral neuritis and was much astonished because he could not recollect seeing more than two cases in Glasgow in all his life. He wondered if he could have overlooked the disease, but after consideration he came to the conclusion that it did not exist in Glasgow, notwithstanding the large quantity of whisky which was drunk there and ought to have produced the disease if it were due to alcohol as usually supposed. The fact that arsenic has now been found both in hops and malt renders it not improbable that cases of peripheral neuritis in Manchester may for years past have been due to a certain amount of contamination of beer by arsenic through hops and malt, and although it is not yet certain it seems probable that this contamination may have arisen from the use of coal or coke containing arsenic in the process of drying.

The recent and remarkable discovery of selenium in beer by Dr. Tunnicliffe imports a new factor into the question, but further information is required before any conclusion can be arrived at as to whether this substance may be partly to blame for producing neuritis, and if so to what extent.

The occurrence of this epidemic has caused an outcry against the practice of using glucose and invert sugar in brewing and a demand that only barley and hops shall be employed. But I am informed that this would render it difficult to brew the light beers similar to the German lager or Pilsener beers which have come to be so extensively drunk in this country within the last 30 years. I regard the introduction of such light beers as a benefit to the public, for it supplies a drink which can, if pure, be taken without causing the heaviness, drowsiness, stupidity, and headache which so commonly follow the consumption of heavy ales.

Although this epidemic has done much harm, has caused great pecuniary loss to the brewers, who were not to blame, and, still worse, has caused great pain, paralysis, and, in some cases, death, to the unwitting consumers of the contaminated beer, it has not been without its advantages For it has shown how a poisonous substance may find its way into a chemical, and through it, not only into beer, but many other substances used as food. It has shown, also, how a poison like arsenic may find its way into food in such unexpected ways as through hops and malt and thus enforces the necessity of guarding the consumer, not by placing restrictions upon manufacture, but by demanding that the manufacturer shall in the future be held responsible for the purity of the articles he sells, and that all materials for beer or foodstuffs should be sold with a guarantee of purity which should be rigorously enforced.

Stratford-place, W.

SOME FURTHER INVESTIGATIONS UPON RHEUMATIC FEVER.

By F. J. POYNTON, M.D., M.R C P. LOND.,
ASSISTANT PHYSICIAN TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET;

AND

ALEXANDER PAINE, M.D. LOND.,
ASSISTANT BACTERIOLOGIST TO ST. MARY'S HOSPITAL.

SINCE our first contribution to this subject, published in THE LANCET of Sept. 22nd (p. 861) and 29th (p. 932), 1900, we have continued our investigations and have now isolated the diplococcus from 16 cases of rheumatic fever. The particular point upon which we are still intent is to establish this diplococcus as a cause of rheumatic fever. If this can be firmly established then the many difficulties that must subsequently be faced can be dealt with from a firm basis. In no disease perhaps more than in rheumatic fever is it necessary to make this ground sure, for it is in the centre as it were of a group of diseases, which not only may resemble rheumatic fever closely in their clinical features, but which are also the result of infections in all probability closely allied to the infection of rheumatic fever. The differential study of the streptococcal, staphylococcal, pneumococcal, gonococcal, scarlatinal, rheumatic, and probably rheumatoid infections is one of great difficulty. The morphological characters of the various organisms can only offer a partial assistance and chemical pathology has not yet advanced sufficiently to render much service, though the important investigations of Dr. Sidney Martin upon diphtheria and ulcerative endocarditis and the numerous researches both in this country and on the continent into the nature of the toxic processes due to microbic infections are indications of the increasing importance of this subject. It is for these reasons that we have entered into such detail in our efforts to prove that this diplococcus is a cause of rheumatic fever, and it is upon this detail that we especially rely.

I.—THE ISOLATION OF THE DIPLOCOCCUS FROM THE NODULE.

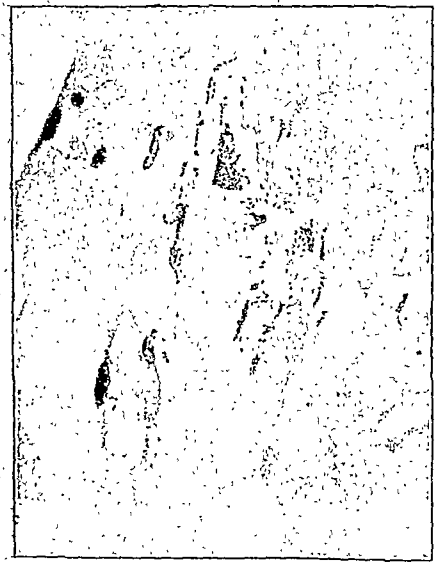
The first series of additional facts that we are able to bring forward in this paper is concerned with the rheumatic nodule. We have succeeded in demonstrating the organisms in two more nodules and have in addition grown them in the nodular tissue outside the body in pure culture. We have produced in a rabbit, as the result of an intravenous inoculation from this culture undertaken for us by Mr. H. G. Plimmer, pathologist to St. Mary's Hospital, a condition we believe to be that of acute rheumatism—namely, polyarthritis, pericarditis, and multiple valvulitis, all non-suppurative. Finally, we have isolated the organisms in pure culture from the joints of the animal after death and thus completed the chain of proof. And since these formations are looked upon by general consent as highly characteristic of rheumatic fever the isolation of this diplococcus from one of them will appeal to many as a strong link in the proof of the causal relation of these organisms. A short outline of the investigation and the sketches subjoined will give a clearer idea of the value of this evidence. We are indebted to Dr. W. B. Cheadle for permission to make use of the clinical notes of the case and to Mr. H. G. Plimmer for the details of the necropsy.

A child, aged nine years, was admitted to St. Mary's Hospital on Nov. 3rd, 1900, suffering from acute rheumatism. When four years old she had suffered from chorea and since then from three attacks of acute rheumatism. The present illness had commenced four weeks before admission with arthritis and for three weeks there had been shortness of breath. The patient was pale and thin, the pulse-rate was 100, the temperature was 102·4° F., and the respirations were 40. There was dyspnœa and there was also advanced heart disease. Both the mitral and aortic valves were affected and the heart was dilated, but there was no sign of pericarditis. The knees and right elbow-joint were painful but there was no effusion. Over both elbows and over the knuckles there were numerous small nodules. The urine contained a trace of albumin. At first the child seemed to improve, though it was noted that the nodules were increasing in size. On Nov. 7th acute œdema of the lungs developed and proved rapidly fatal.

The necropsy showed recent transparent, bead-like vegetations upon the mitral, tricuspid, and aortic valves, and the mitral and aortic valves were also thickened from the results of previous inflammation. There was no pericarditis but there were 25 cubic centimetres of a straw-coloured fluid in the pericardium. The lungs were œdematous and in some places there were hæmorrhages into the alveoli and in others collapse. The liver was "nutmegged," the spleen was small and firm, and both kidneys showed cloudy swelling of the parenchyma of the convoluted tubules. Two hours after death we removed three nodules from the right elbow with strict aseptic precautions. One of these we at once placed in the medium of milk and bouillon rendered slightly acid with lactic acid. The second we cut with a sterile knife, then scraped, and with the scraping inoculated a second tube. The third we "fixed" at once in perchloride of mercury. Both tubes were incubated anaerobically. The tube inoculated with the exudation remained sterile. The tube containing the entire nodule showed no growth upon the first day, but upon the third day a pure culture of the diplococci. The organisms were transferred to blood-agar tubes and grew in the usual small, white, discrete colonies The contents of five of these tubes were injected intravenously into a rabbit on Nov. 11th The result of the intravenous inoculation was as follows. The next day the heart was very rapid and there was a definite systolic mitral murmur, and upon the second day the hind limbs were stiff. The murmur then disappeared, but a week after inoculation the left fore and hind limbs were almost powerless, and in the next few days this weakness and stiffness spread to all four limbs. A fortnight after inoculation a systolic murmur had reappeared and there was definite pericarditis, but the stiffness had disappeared and the joints were none of them swollen. We were anxious to obtain a definite arthritis with effusion, because we have found that these effusions afford the easiest and most reliable local lesions from which to cultivate the organism. Accordingly, on Nov. 26th—that is, the day after we had noticed that the stiffness had disappeared—the animal was again inoculated with the organism which had been kept growing in the acid milk medium. Two days afterwards stiffness of the limbs appeared, then the right shoulder swelled, and five days afterwards both knee joints. The animal was killed next day and the post mortem examination showed mitral and tricuspid valvulitis, pericarditis of some standing, and an opaque fluid in the right knee-joint. There was no suppuration in the viscera. Cultivations were taken from the joint and a pure growth of the diplococcus obtained. The nodule which had been incubated was by this time in a pulpy condition from the effects of the liquid medium in which it had been lying. This we fixed and hardened in alcohol and finally embedded and cut in paraffin. The accompanying illustration (Fig. 1) shows the prolific growth of the diplococci. The nodule that we fixed in perchloride of mercury was also hardened and cut, and in the outer zone we found some groups of the diplococci (Fig. 2). It will be seen from this account that every circumstance was favourable for the success of this investigation and the proof a very conclusive one. In our previous papers we also recorded that intravenous inoculations of the diplococcus had produced in one instance a nodule over a vertebral spinous process and nodular formations around the joints which microscopically resembled the structure of an early nodule in man. Also that subcutaneous injection of a virulent culture had produced a large swelling which, slightly tender at first, had gradually disappeared without any evidence of suppuration.

This method of incubating the nodule may possibly be of some service to others who are interested in this subject. We believe that in the local lesions of rheumatic fever the struggle between the organisms and the tissues is so evenly balanced that in many instances at the time of death the diplococci are many of them destroyed. If, then, with due precaution, a lesion in the so-called "active" stage be removed and incubated in a suitable medium the organisms should grow, for there is now no resistance to prevent their growth. *It is very possible that they do not regain their full* vitality, but they can be easily demonstrated and may, as we have shown, produce experimental results. Recently we have adopted this method for the cardiac valves and instead of curetting them have snipped off the granulations, incubated them in the acid medium, and in this way obtained a pure growth of diplococci.

FIG. 1.



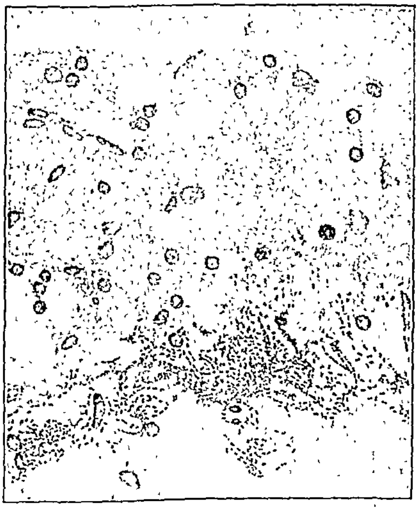
A section through the outer zone of a recent rheumatic nodule, showing groups of the diplococci lying in the interstices of the swollen connective tissue. The nodule was removed with strict aseptic precautions two hours after death and at once placed in a saturated solution of perchloride of mercury.

Summary.—To sum up, (1) we have demonstrated the diplococcus in three rheumatic nodules taken from two cases of rheumatic fever; (2) we have isolated the diplococcus from the nodule in one instance in pure culture; (3) intravenous inoculation of this culture has produced valvulitis, pericarditis, and polyarthritis in a rabbit; (4) we have isolated the diplococcus from the joint exudate of this rabbit; and (5) the nodule is looked upon as a highly characteristic manifestation of rheumatic fever, therefore we conclude that this investigation lends strong support to the contention that this diplococcus is a cause of rheumatic fever.

II.—OBSERVATIONS UPON THE PATHOLOGY OF RHEUMATIC CHOREA.

In our paper upon the Pathogenesis of Rheumatic Fever, read before the Pathological Society of London in October, 1900, we recorded a condition produced by the intravenous inoculation of the diplococci into a rabbit which we believed to be chorea. This rabbit was extremely nervous, and in addition manifested sudden twitching movements of the limbs and face. These movements were definite, but not violent, and there was about them that peculiar, sudden, involuntary character, which is so characteristic of slight rheumatic chorea. At the time of the reading of this paper we had not examined the brain further than to be able to state that there was no visible meningitis. Since then we have investigated much of it and have found diplococci in the pia mater and in the endothelial cells of the blood capillaries, dipping into the motor cortex from the surface (Figs. 3 and 4). The pia mater in places showed some slight swelling of its connective tissue and cell exudation. The organisms were also present in the walls of some of the blood-vessels of the pia mater. The rabbit, which suffered from chorea and also valvulitis and polyarthritis, was the only one in a series of inoculations from animal to animal that showed these movements. The others (rabbits No 1, 2, 3, 4, and 5 in the original paper in THE LANCET) showed numerous manifestations of rheumatic fever but not any movements of this nature. The fatal case of rheumatism from which the culture was obtained was recorded (Case 4) in THE LANCET and the growth was obtained in the pericardial fluid itself after incubation. On another occasion we isolated the diplococci from the cerebrospinal fluid of a rabbit suffering from valvulitis and pericarditis, but the animal had shown no signs of chorea. Again, we noted in a third rabbit weakness of the hind limbs, which we suggested might be paralytic chorea. In a case of fatal chorea we discovered micrococci in the mitral valve and in the motor cortex, but the organisms were never isolated, and this observation at the best is not more than suggestive. Finally, on three occasions we have isolated the organisms from the blood in acute rheumatic pericarditis. This is a proof that they circulate in the blood stream, and therefore presumably circulate in the cerebral vessels and possibly escape to the cerebral tissues in acute rheumatism with pericarditis.

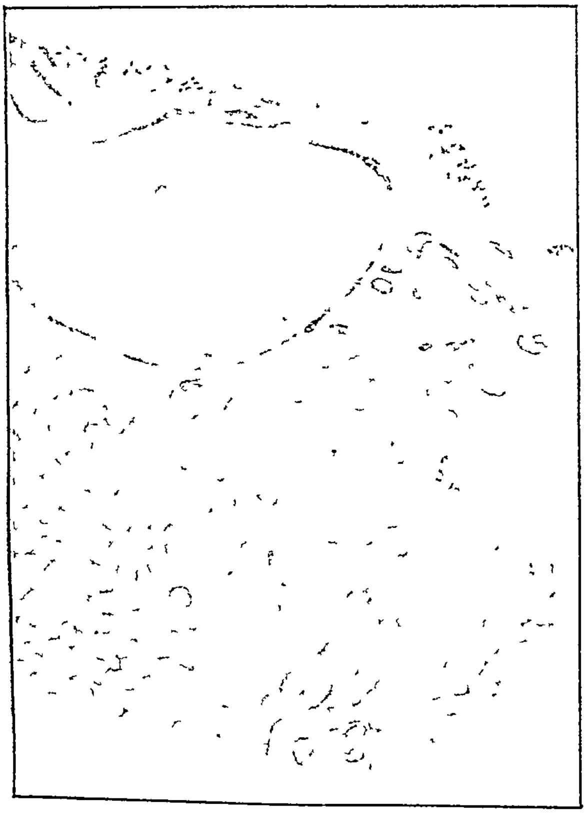
FIG. 2.



Section through a rheumatic nodule removed two hours after death with strict precautions and incubated anaerobically in the milk, bouillon, and lactic medium. The tissues are altered in appearance from soaking in the medium previously to fixation, but the free growth of the diplococci is clearly seen at the lower margin of the figure.

The conclusion to which these observations appear to lead is this—that the commencement of rheumatic chorea is associated with the presence of the diplococci in the brain and perhaps pia mater, as well as with the presence of toxins produced by these organisms. If this be so, then we should be prepared to find that, with due allowance for the special anatomical characteristics of the brain, the morbid changes produced would be analogous to those presented by the other local manifestations of rheumatic fever. We can speak with confidence of the nature of these changes in the cardiac valves, myocardium, pericardium, and nodules. The connective tissues swell, there is hyaline degeneration, and there may be necrosis. The connective tissue cells proliferate. Where there are blood-vessels there is hyperæmia and there may even be small hæmorrhages; there is also fibrino-cellular exudation. The cardiac muscle fibres then lose their striation and there may be well-marked fatty changes. If the process has been less severe but of long duration there is sclerosis spreading, especially from the position of the small blood-vessels. Then we also know that the diplococci in the valves, pericardium, and nodules are rapidly destroyed at the sites of the lesions, though it is probable that the poisons that are produced may linger after the disappearance of the organisms. But we are in ignorance as to the nature of any poisons that may be formed by the action of the diplococci.

FIG. 3.

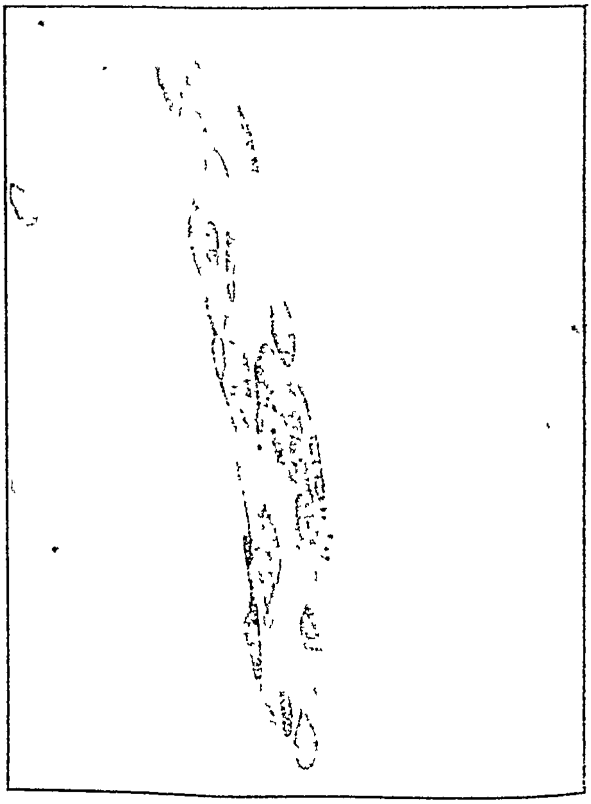


A section through the pia mater and adjacent brain tissue of a rabbit that suffered from polyarthritis. Mitral valvulitis and choreiform movements, the result of intravenous inoculation with the diplococcus. Numerous diplococci are seen in the pia mater close to a large capillary, the lumen of which is only partially visible in the figure. The connective tissue of the pia mater is slightly swollen.

If these observations are applied to the pathology of rheumatic chorea we should expect to find that the lesions are various. In very acute and rapidly fatal cases we should expect hyperæmia, possibly small hæmorrhages, and foci of necrosis in the cerebral tissues; also minute emboli or thromboses in the terminal capillaries. In the less acute cases we should expect changes in the region of the minute blood capillaries, such as cell-exudation and cell-proliferation and also degeneration of nerve-cells. In the chronic cases we should expect perivascular fibrosis and small areas of sclerosis. There would probably be considerable difficulty in demonstrating the organisms, especially in the more chronic cases; on the other hand, it is quite possible in some cases that they may be present in sufficient numbers to block the most minute of the blood capillaries, or escaping from the vessels into the brain tissue to set up such swelling in the neighbourhood of these minute capillaries as to cause their occlusion from pressure upon the delicate walls. Our investigations throw no light upon the regional localisation of chorea, neither do they throw light upon the action of toxins or the characteristics of the brain itself, both most important factors in the pathology of chorea. It would, however, appear probable that the actual commencement of chorea in rheumatism is usually associated with the presence of the diplococci in the brain.

Up to this point we have contented ourselves with reasoning from our facts upon the pathology of chorea. It now remains for us to allude to some of the numerous observations of other investigators upon this subject which have, it is clear, guided us in arriving at these conclusions and which are of the utmost importance in any investigation of such a nature as this one In 1863 Dr. Kirkes,[1] noticing the constant presence of vegetations on the valves of the heart in fatal chorea, suggested that the disease might be caused by the irritation produced in the nerve centres by fine molecular particles of fibrin which were set free from the inflamed endocardium and carried by the blood current into the capillaries of those cavities. Dr. Hughlings Jackson[2] in 1864 wrote: "I think from many circumstances that embolism is a frequent cause of chorea. I do not say plugging of the trunk of the middle cerebral, but probably of some of its ramuscules which supply convolutions near to the corpus striatum." In 1865 Sir William Broadbent,[3] by an independent research, arrived at much the same conclusion as had Dr. Hughlings Jackson, and also laid stress upon the importance ot alterations in the blood as a predisposing cause. Dr. H. M. Tuckwell[4] in 1867 published a case of chorea in which the necropsy disclosed an extensive superficial softening of the convolutions the result of embolism. And again in the St. Bartholomew's Hospital Reports for 1869 he recorded another fatal case in which there was embolism of the right posterior cerebral artery and figured in a plate both the mitral valve and the vessel that had been plugged. It is impossible to over-estimate the value of those researches, for they at once brought

FIG. 4.



A capillary blood-vessel in the motor cortex of the rabbit's brain *vide* Fig. 3), showing the organisms in the endothelial cells.

---

[1] New Sydenham Society's Year-book, 1863, Summary by Dr. Handfield-Jones.

[2] London Hospital Reports, 1864, vol. i., p. 459; THE LANCET, Nov. 26th, 1864, p. 606; Note on the "Embolic" Theory of Chorea, Brit. Med. Jour., Dec. 23rd, 1876.

[3] Brit. Med. Jour., 1869.

[4] British and Foreign Medical and Chirurgical Review, p. 506; St. Bartholomew's Hospital Reports, vol. v.

the subject into the field of controversy and put forward an hypothesis capable of proof or disproof.

The whole question of cerebral disease was further advanced by the experimental researches of Fitz, Hitzig, Ferrier, and others upon cerebral localisation. Later opponents arose to the embolic theory, Ogle, Barnes, Dickinson, Bristowe, and Bastian in particular advancing objections to this hypothesis. Dr. Dickinson,[5] in 1876, wrote thus upon this question: "We see in chorea a widely distributed hyperæmia of the nervous centres, not due to any mechanical mischance, but produced by causes mainly of two kinds—one a morbid, probably humoral, influence which may affect the nervous centres as it affects other organs and tissues; the other, irritation in some mode, usually mental, but sometimes what is called reflex, which especially belongs to, and disturbs, the nervous system and affects persons differently according to the inherent mobility of their nature. The course of the disease is sufficiently traced in hyperæmia and its results." Dr. H. C. Bastian[6] in 1877, in a paper entitled "Remarks on the Pathology of Chorea," writes: "In common with many who have spoken with greatest authority on this subject I look (certain rare cases excepted) to an altered and often anæmic blood-state as its predisposing cause in individuals of a certain age and nervous temperament. Secondly, I look to the irritation in such individuals of a disturbed nutrition in the corpora striata and adjacent parts of the brain, tending to issue and often actually issuing, in what for want of any more appropriate term may be called a subacute inflammation of these centres—often characterised in part by the production of multiple minute thromboses." In 1876 Dr. Hughlings Jackson, after alluding to those cases of chorea in which Dr. Bastian found plugging due to thrombosis, writes: "It may be, I would admit here, that the hypothesis of embolism will be displaced by Bastian's hypothesis of thrombosis as an explanation of many cases of chorea." In a footnote to this paper he further writes: "Having regard to the great elaborateness of the movements in chorea I still think it most probable that the convolutions are the parts diseased." Since the time of those papers numerous investigators in England and on the continent have proved beyond controversy that chorea and rheumatic fever are very frequently associated, so frequently, indeed, that some have thought that all chorea was the result in some way or other of rheumatism. As this association became more certain it was natural that the view that some poison the result of the rheumatic state was the actual cause of chorea should gain many adherents. A considerable amount of information has also been gained about the morbid anatomy of fatal chorea, though, as pointed out by Dr. Risien Russell[7] in his article upon Chorea in Professor Clifford Allbutt's "System," many of these investigations have not been sufficiently thorough. It is easy to understand the difficulty of such investigations when it is borne in mind that those who have undertaken them have had but little to guide them as to what to look for or where in such a large organ as the brain to look. It would appear, nevertheless, that the more careful the researches the more frequently have some definite morbid changes been discovered.[8] Hyperæmia appears to be common, as also softening from the effects of minute emboli.[9] Punctiform hæmorrhage and perivascular exudations have also been found.[10] The late Dr. Charlewood Turner[11] described cloudy swelling of the large pyramidal cells, and Dana[12] hyaline swelling of nerve cells and chronic lepto-meningitis.

Another result of the establishment of the association of rheumatic fever and chorea was the view that the changes in the brain were analogous to those which occur in the valves of the heart and in the subcutaneous nodules. To quote from the Harveian Lectures for 1888, by Dr. W. B. Cheadle,[13] "I may point to the possibility of some proliferative change in the neuroglia akin to that of the fibrous tissues elsewhere as a point which needs examination." If these local lesions in rheumatic fever be each one of them looked upon as an individual and complete rheumatic process, then we have the clinical expression of such a view as the above in the statement by Sir Dyce Duckworth[14] that chorea is cerebral rheumatism, in support of which in 1894 he read a paper at Rome at the International Congress of Medicine. Again, in a recent communication to us Dr. Hughlings Jackson refers to the possibility that some of the changes in the brain are analogous to those found in the cardiac valves and subcutaneous nodules. On the other hand, the view that chorea was in most part the direct effect of rheumatic fever was opposed by such an authority as Sir William Gowers[15] in his "Manual of Diseases of the Nervous System" in 1893. He admitted the frequency of association of the two, but writes: "The hypothesis which seems best to explain the facts is the old theory that the common cause of the endocarditis and the chorea is a blood state allied to, but not identical with, that which causes acute rheumatism." He considered that the facts suggested a toxic change of a chemical character rather than an organised virus.

One of the most recent researches upon the morbid anatomy of acute chorea is that of Dr. Bertram Abrahams.[16] The patient, aged 28 years, was pregnant; there was a history of scarlet fever but not of rheumatic fever and during life there was a systolic mitral murmur pointing to slight mitral endocarditis. The illness lasted from April 25th, 1899, to June 1st. The motor cortex showed changes, especially up the right side in the region of the right parietal lobe. In this region there was a profuse exudation of small cells which were found to be uninuclear leucocytes. In some sections these cells could be traced passing through the walls of the small blood-vessels and outside the vessels occupied the peri-neuronal lymph spaces. There were haziness and swelling of the pyramidal cells. There was no trace of micro-organisms. Dr. Abrahams in his comment writes as follows: "I would venture, however, to submit that it tends to support the following general deductions. Firstly, the changes noted are sufficient to explain the clinical manifestations of the disease on the ground of disturbances in the cells of the so-called motor cortex. Secondly, their nature is such as to be susceptible of complete and rapid recovery—a fact in harmony with the description of the disease as functional. Thirdly, there is nothing in them inconsistent with the conception of chorea as an affection produced by a blood state—namely, the rheumatic toxæmia." With the development of bacteriology new facts were obtained, and during the last 15 years the opinion that rheumatic fever was of microbic origin has steadily gained ground. This resulted in the recognition of the possibility that some bacterial poison might be the cause of rheumatic chorea, an idea strengthened by the analogy of the occurrence of diphtheritic paralysis as the result of the infection with the specific bacillus of diphtheria. But though the view that the condition might be the result of some poison circulating in the blood gained in force, there still, we believe, must be recognised the clinical fact that rheumatic chorea is often remarkably asymmetrical in its distribution, sometimes focal, and this, we think, militates against the theory of a diffuse poison being the only casual agent and points rather to multiple local lesions being present in addition to the more diffuse cerebral toxæmia.

Finally, within the last 10 years various observers have isolated organisms from the brain and its pia mater in fatal chorea. The organisms most usually found have been cocci,[17] though Pianese[18] in 1893 isolated a bacillus which produced convulsions in animals. In 1894 Dana[19] isolated a diplococcus from the meninges, and in 1898 Apert[20] isolated a diplococcus from the brain and was of opinion that the organism was similar to that described by Triboulet[21] as a cause of aggravated rheumatic fever. In 1899 Wassermann and Malkoff[22] isolated from the brain in a fatal case of chorea a diplococcus which produced fever and multiple arthritis in a series of 80 rabbits. This diplococcus Professor Wassermann considered to be the specific cause of rheumatic fever. In 1899 Maragliano[23] as a result of his researches considered chorea to be a cerebral infection by staphylococci, and maintained that the disease was due either to the presence of these organisms or to the poisons which they produced. In 1900 we produced chorea in a rabbit by the intravenous inoculation of a diplococcus which we believe to be a cause of rheumatic fever, and demonstrated the organisms in the pia mater and in the endothelial cells of the blood capillaries dipping in the cortex.[24]

---

[5] Transactions of the Royal Medical and Chirurgical Society, 1876.

[6] Bastian: Remarks on the Pathology of Chorea, Brit. Med. Jour., Jan. 13th and 20th, 1877.

[7] and [17] [illegible] vii.

[8] [illegible]

[9] [illegible]

[10] [illegible] Ibid.

[11] Transactions of the Pathological Society of London, 1892, vol. xliii.

[12] Loc. cit.

[13] Manifestations of the Rheumatic State, Harveian Lectures, 1889.

[14] Atti dell' XI. Congresso Medico Internazionale, Rome, 1894, vol. iii.

[15] Manual of Diseases of the Nervous System, 1893, p. 854.

[16] Cortical Changes in Acute Chorea, Transactions of the Pathological Society, 1900.

[18] La Natura infettura della Corea del Sydenham, Napoli, 1893.

[19] The Microbic Origin of Chorea, American Journal of the Medical Sciences, 1894, p. 31.

[20] Comptes Rendus de la Société de Biologie, Paris, 1898, vol. v., p. 128.

[21] Ibid., 1898, vol. v., p. 214.

[22] Berliner Klinische Wochenschrift, 1899, No. 29, p. 638.

[23] Centralblatt für Innere Medicin, 1899, Band xx., p. 489.

It remains for us to consider some of the clinical characteristics of rheumatic chorea and to attempt to explain them by the hypothesis that in most cases, possibly all, the commencement of the disease is the result of the actual presence of the diplococci together with the poisons they produce in the brain. Any such considerations must be limited by our ignorance of the part taken in the disease by the brain itself, which fact is without doubt a very important one, and also by our ignorance of the exact action of the toxins that are produced by the organisms. Further, our observations do not throw any definite light upon the localisation of the lesions. The hypothesis involves the consideration of two morbid processes in the actual production of the disease—one, focal, dependent upon the tissue-changes in the regions where the diplococci are located, the other dependent upon the toxic effects of the poisons upon the nerve elements. How much is to be attributed to each factor will be made far more clear when these poisons can be isolated and studied by experiment.

The onset of chorea is usually gradual, sometimes acute, in rare cases almost sudden. In the acute it is reasonable to suppose that there is invasion of the brain by diplococci. It is possible that they escape from the vessels and set up swelling and exudation in the surrounding tissues, just as in the nodule they may quite rapidly give rise to a swelling which is perceptible to the eye. In cases of more gradual onset the invasion is probably less severe either in the intensity of virulence or in the number of the organisms that gain access to the brain. The symptoms are sometimes focal and sometimes general, because there are the two processes dependent upon the factors mentioned above. The lesions that are produced usually resemble those represented by the nodules in the completeness of their recovery and also in the varying duration of this recovery. The analogy cannot, however, be pushed too far. We recognise that there is this peculiarity about the cerebral processes, that they are of such complexity that when disordered they are especially slow to return to normal, although the actual cause of the disturbance may have been removed. Some rare cases are fatal, the intensity of the disease resembling then the severe types of rheumatic pericarditis. Other cases recover only partially and for years a chronic condition of disordered movement persists. We should suspect that this points to some actual, though slight, multiple organic lesion, and in such cases, also, some peculiarity in the brain itself is highly probable This view is supported by the pathological changes that have been found in that chronic progressive form of chorea known as Huntingdon's chorea. It was clearly demonstrated by the earliest investigators that the paralytic manifestations mean a more severe nerve lesion than the incoördinate movements. These paralytic symptoms we would associate with acute local tissue changes in the regions invaded by the diplococci.

That only certain cases should develop chorea is remarkable and cannot as yet be explained, but it is only a further evidence of the remarkably specific action of the more complex poisons, the truth of which we have been led to recognise by the study of peripheral neuritis. There is little doubt, too, that in children more cases than are perhaps generally recognised present slight manifestations of chorea during acute rheumatism (a point which has been emphasised by Sir Thomas Barlow), and still more cases without presenting evidence of actual chorea, are highly nervous and excitable during an attack of rheumatic fever. That the disease should be common in children and rare in adults is in accord with what is found with many other acute infections; the child is less resistant to them than the adult, and the manifestations are more widespread.

The causal relation of fright to chorea is, and always has been, a great difficulty. Some authorities—for example, the late Dr. Sturges[25]—have attributed to fright and mental strain a most important position, others with equal ability have opposed this view. The truth probably lies in the middle course. Many of the examples attributed to fright have, no doubt, only proved that the condition of the brain must have been very unstable, and the essential point has been, not the trivial cause of fright, but this condition of instability. It is well known that rheumatic children are often highly nervous and excitable, and especially so before an attack of chorea; this fact has been insisted upon by, among others, Dr. Goodhart, Dr. Cheadle, and Sir Dyce Duckworth, and quite recently by Dr. Still. How much of this instability in any case of chorea is to be attributed to hereditary weakness and how much to latent rheumatic processes it is difficult to decide. At present the pathological processes that result from fright are unknown, though on the clinical side it is recognised that their effects may be as far-reaching and of as long duration as morbid conditions produced by bacterial poisons. The association of fright and rheumatic chorea appears to stand at present thus. Rheumatism produces a cerebral state analogous to that produced by fright; what that condition is we do not know. When chorea arises in a rheumatic child and is attributed to fright it would seem probable that fright acts upon the rheumatic brain much as strain acts upon the rheumatic heart—namely, intensifies the rheumatic process in the brain and precipitates chorea, as does strain hasten the onset of rheumatic carditis. Such a brain previously to the fright is unstable from rheumatic infection and then the fright itself, lowering still more the cerebral resistance, starts sometimes at once, sometimes after a short interval, the actual phenomena of chorea.

III.—THE OCCURRENCE OF THE DIPLOCOCCI IN THE POLYMORPHONUCLEAR LEUCOCYTES.

By centrifugalising the pericardial exudate from a case of acute rheumatic pericarditis we have succeeded in demonstrating the presence of these organisms in the polymorphonuclear leucocytes. In one instance there were as many as three pairs of diplococci in one leucocyte. In rabbits we have also demonstrated them in the same cells in the joint exudate. The fact that the diplococcus can be discovered in the polymorphonuclear leucocytes is of interest because it is well known that there is a moderate leucocytosis in rheumatic fever. It is therefore possible that this leucocytosis is protective in function.

IV.—THE INCUBATION PERIOD OF RHEUMATIC FEVER.

It does not seem very probable from our observations that rheumatic fever has a definite incubation period. If it should so happen that a very considerable infection suddenly occurred, then the symptoms show themselves rapidly. Dr. A. E. Garrod in his treatise gives several examples in which the local symptoms showed themselves on the second day or within the first week, and in these instances there was a very definite history of chill and cold. Rabbits intravenously inoculated usually show the first local lesions at the end of the second or the beginning of the third day. On the other hand, the resistance to the disease being great, it may well be in other instances that for some considerable time the infection is kept at bay and general indeterminate symptoms alone be manifested. Then one of two events may occur: either the resistance may prove effectual and the illness come to an end without having ever been recognised as rheumatic fever, or the infection may conquer and rheumatic fever result after a considerable period of previous ill-health. This occurrence of rheumatic fever after some weeks of previous malaise is thoroughly recognised by clinicians.

In the consideration of this question a study of the tonsils after death is of some interest. These are not uncommonly enlarged and very unhealthy at the time of death, and when sections are made through them scattered foci of inflammatory exudation may be discovered at some distance from the surface (a point insisted upon by Dr. William Hillier), the structure of the tonsil itself is indurated and points to a condition of subacute inflammation and disease of long standing. In such a condition as this we naturally wonder how great possibilities for harm exist in these scattered foci of active disease, to what extent the organisms may develop at these sites, and to what extent they may gain access to the system. The importance of this question has been still more accentuated by the extensive researches of Fritz Meyer, conducted in the laboratory of Professor von Leyden, and published in February, 1901. Meyer, after an investigation extending over two years, succeeded in repeatedly isolating from the throat in rheumatic patients a diplococcus easily decolourised by Gram's method. This grew well on blood agar in staphylococcal masses, and in liquid media of high alkalescence in streptococcal chains, and produced in rabbits the same phenomena as did the diplococcus isolated by ourselves.

---

[24] Transactions of the Pathological Society, October, 1900.

[25] THE LANCET, Sept. 29th, 1888, p. 605.

V.—IS FEVER A PRIMARY PHENOMENON IN RHEUMATIC FEVER OR IS IT SECONDARY TO THE LOCAL LESIONS ONLY?

Upon this point we are able to bring forward some facts which suggest that fever may be a primary phenomenon of the disease. This view has been held by such authorities as Graves, Todd, Fuller, and others, while, on the other hand, Besnier and Homolle considered the fever to be secondary to the local lesions. In the valuable monograph by Dr. A E Garrod upon rheumatism the evidence for and against these views and the difficulty there is in arriving at a solution of this question are stated with great clearness. As Dr. Garrod has written, "It is only from the presence of the local manifestations that it is possible to be sure of the nature of the attack." Experiment overcomes this difficulty in some measure, but not at present altogether, for we do not understand exactly the method of infection in rheumatic fever. Granting, for example, that the throat is an important site of infection, we cannot say precisely under what conditions the diplococci gain access to the system, though it is probable that the path is through the lymph channels.

The experimental method of intravenous inoculation, on the other hand, is a gross method, for one considerable dose of the organisms is at once injected into the circulatory system and all resistance at the site of inoculation put out of court. Admitting this, it is clear that we can by this means state precisely when infection took place, and therefore can judge whether fever is a primary phenomenon or not under those conditions. We have found the temperature rise within 24 hours, whereas the local lesions usually do not appear until the third day. In one case pericardial fluid from a case of rheumatic pericarditis was removed in sterilised pipettes four hours after death, and then incubated for 24 hours. The fluid contained the diplococci in great numbers. This was intravenously inoculated and four hours afterwards the temperature had risen to 105°. This was a more pronounced rise of temperature than occurred when cultures upon blood agar were used. This result suggests that toxins in the pericardial fluid might have assisted in causing this rapid rise of temperature.

VI.—THE EXPERIMENTAL PRODUCTION OF MORBUS CORDIS.

Whatever views may be held by others regarding the relation of this organism to rheumatic fever there can be no possible doubt that they are capable of producing cardiac lesions with great constancy. We have repeatedly observed the occurrence. The mitral, tricuspid, and aortic valves have all been affected, and, in addition, dilatation of the heart with fatty change in the myocardium and pericarditis have resulted. These results are extremely suggestive of the true meaning of the infection. It seems highly probable, too, that the study of heart disease may be simplified and be made more certain by observations upon the conditions experimentally produced. There is one aspect of this subject which has a very important bearing upon the study of rheumatism, and that is the involvement of the right side of the heart. It is repeatedly stated that the right side of the heart is but rarely affected in rheumatic fever, and so frequently is this statement made that we believe it may lead to error. Sir Thomas Barlow, among others, has, to our knowledge, frequently pointed out that several valves are usually injured in the severe rheumatic carditis of childhood, and in such cases we believe, with others, that it is comparatively common for the tricuspid valve to be affected. The lesions are less severe, no doubt, often indeed very slight, but they are frequently present. Again, when it is remembered that the tendency of these lesions in rheumatism is toward recovery, it may well be that a thickening of the tricuspid segments, really of previous rheumatic origin, may be ascribed entirely, rather than in part, to mechanical overstrain the result of some advanced lesion upon the left side. The question, as it presents itself in rheumatic fever, is one of degree, and to argue that an affection of the right side of the heart, even if severe, *cannot* be rheumatic but is due to a secondary infection is, we believe, to assume more than can be granted. When the extremely delicate valves of the rabbit's heart are affected, the granulations are minute and the distinction between the affection of the valves on the right and on the left side less evident. The aortic segment of the mitral is, however, as in man, a less delicate structure, and it is in that segment that we have noted in addition to granulations some thickening and opacity. It is quite possible that by the experimental method the solution of certain difficulties will be obtained, for just as in man the mitral valve or the aortic may be apparently alone affected, so in rabbits we have observed the same occurrence; yet even in those cases in which only one valve apparently is affected it is quite possible that more than one was infected but that these others have by virtue of the phagocytic action of their connective tissue-cells destroyed the invading organisms which attacked them in comparatively small numbers

At the risk of repetition we would once more state that injury to the tricuspid valve in the severe rheumatic carditis of childhood, though slight in extent, is frequent in its occurrence, and the more carefully it is looked for the more frequently it will be found to occur. That if rheumatic fever is a disease due to an infection there is danger in the assumption that disease of the tricuspid valve is necessarily due to a secondary infection That such may be the case is certain, but how often it is the case yet remains to be proved. Again, when a patient who has been the victim of repeated rheumatic attacks dies from malignant endocarditis it is quite as legitimate to assume that the condition is truly rheumatic though altered in type as it is to assume the occurrence of some secondary infection If the organisms are isolated and demonstrated as specific yet not rheumatic then the position is certain, but to judge by the size of granulations, by the rupture of chordæ tendineæ, by the spread of the vegetations on to the surface of the auricle, or by the marked affection of the tricuspid valve, is, we believe, dangerous and liable to result in an attempt to bind with an iron band a disease which is perhaps of all diseases one of the most variable This fact we can state, that we have succeeded in isolating a diplococcus from cases of endocarditis in which rheumatism appeared to be the only cause, and have reproduced even to the very identical valves malignant endocarditis and then later a condition indistinguishable, as far as the arthritis and endocarditis are concerned, from the condition produced by the diplococcus of simple rheumatism.

The occurrence of ante-mortem thrombosis in the heart in rheumatic fever.—The causes of its occurrence are probably various—there are the mechanical difficulties associated with the valve deformities, there is the weakness of the heart wall, and the increased tendency of the blood to clot. In rabbits the stages of the process can be studied. In one case we noted rapid, feeble, distant heart sounds and the development of a systolic murmur, audible at the lower angle of the right scapula. We were puzzled by the murmur, and suspected, from the condition of the heart, pericarditis. The necropsy showed no gross valvular disease, but a large ante-mortem clot in the right auricle. It is clear that in this case one factor in the causation of ante-mortem thrombosis could be excluded—namely, the mechanical one due to advanced valvular disease. The next case in which we noted the feeble, distant heart sounds we did not wait, but after assuring ourselves that it was not a passing phenomenon the animal was killed and the heart examined. Our conjecture proved correct; ante-mortem thrombosis had commenced in the left ventricle in the neighbourhood of the valve ring beneath the mitral cusps and at the apex of the left ventricle. There was no gross valvular lesion. Finally, as in rheumatism, a mitral systolic murmur may appear early in the illness and then rapidly disappear. So in rabbits we have observed the phenomenon and have ascribed it to the same cause—namely, to an acute dilatation of the ventricle rather than to an organic affection of the mitral valve.

DIPHTHERIA IN SHIREHAMPTON.—At the meeting of the Barton Regis (Bristol) Board of Guardians held on April 26th, Dr. E Crossman, medical officer of health, reported that 25 cases of diphtheria had occurred at Shirehampton during the past two weeks, and he urged the need of further hospital accommodation for infectious disease. The council eventually resolved to build a temporary hospital with 16 beds at a cost of about £550.

A CASE OF PERFORATING GASTRIC ULCER WITH RIGORS.

OPERATION FOR SUTURE FOLLOWED THREE WEEKS LATER BY VOLVULUS AND ACUTE INTESTINAL OBSTRUCTION REQUIRING A SECOND LAPAROTOMY.

BY ANTHONY A. BOWLBY, F.R.C.S. ENG.,
SURGEON TO THE ALEXANDRA HOSPITAL FOR CHILDREN WITH HIP DISEASE; ASSISTANT SURGEON AND SURGEON-IN-CHARGE OF THROAT DEPARTMENT, ST. BARTHOLOMEW'S HOSPITAL;
AND
J. F. STEEDMAN, F.R.C.S. ENG.,
LATE HOUSE SURGEON, ST. BARTHOLOMEW'S HOSPITAL.

THE patient, a female, aged 27 years, was seen for the first time on Nov. 10th, 1899, three days before perforation took place. She was then suffering from slight dyspeptic symptoms, without anæmia or marked constipation, and gastric ulceration was not suspected. For two years, however, she had had gastric troubles of varying severity and had once suffered from anæmia. On Nov. 13th at 6 P.M. she had a sudden attack of pain in the left side with vomiting. She rallied from this and when seen on the 14th was fairly comfortable, but had vomited again. During the whole of this day she did not lose ground, and she took a fair amount of hot water and milk diluted with thin barley water. She had a good night. On the 15th she was not so well She had a rigor at 9.20 A.M. The abdomen was tender and tympanitic. Another rigor came on at 12 37 P.M There was no action of the bowels. Mr. Bowlby saw her at 6 P.M., and then, 48 hours after the commencement of acute symptoms, the abdomen was opened by a median incision above the umbilicus. A perforating gastric ulcer was found on the anterior wall and near to the cardiac end of the greater curvature. This was closed with six sutures without difficulty. The ulcer was about a quarter of an inch in diameter, round, with clean-cut edges as if punched out, without any inflammation or inflammatory thickening. The stomach contained about an ounce of mucus, but the abdomen, though distended, did not contain much fluid or solid matter, the latter being chiefly flakes of coagulated milk The spaces behind the liver and Douglas's pouch were carefully sponged out, but the abdomen was not irrigated. A glass tube used to drain the gastro-hepatic region was kept in until the third day after operation. The patient recovered well from the operation and progressed very fairly for three weeks, though the temperature was never quite satisfactory except for a few days at a time. On Dec. 4th, three weeks after the operation, there occurred a sudden attack of very severe abdominal pain with vomiting and collapse. The patient complained of pain in the lower part of the abdomen with some tenderness, and though the pulse was good she looked and felt very ill. The abdomen was distended, especially below the umbilicus, and tympanitic. The liver dulness was almost entirely absent and there was nausea but no vomiting. The pulse-rate was 88 and the temperature was 100° F. Per rectum nothing was felt. From this time till 10 30 P M. the pain gradually increased and the patient became more and more restless. The distension increased and the pulse became more irregular and more feeble, but it was never above 100. At this time the patient was again seen by Mr. Bowlby and it was decided to operate at once.

The operation was performed at 10 30 P.M. by a long incision below the umbilicus. The peritoneal cavity contained about a quart of darkly blood-stained fluid and in the lower part of it could be seen a mass of greatly distended and discoloured intestine. This was firmly fixed down in the pelvis where it seemed to be quite impacted. With some difficulty it was turned out of the peritoneal cavity in a mass, and it was then found that the greater part of the small intestine had been adherent at the bottom of Douglas's pouch and had become completely twisted from left to right so as to form a large volvulus. The adhesions were divided and the mass of distended bowel was untwisted, but was found to be so much distended that two small incisions had to be made with a tenotomy knife to let out gas and fluid before the intestines could be returned into the abdomen. The wounds were closed with Lembert's sutures and the intestines were sponged and returned to the peritoneal cavity. The abdominal wall was sutured in layers and closed. Progress was subsequently uninterrupted and after careful feeding for three weeks the patient made a satisfactory recovery.

The case is interesting from several points of view, not least on account of the extraordinary vitality and recuperative power of the patient who survived two days of peritonitis following perforation and the necessary operation for suture as well as the strangulation of an immense quantity of small intestine and a very serious operation for its relief within three weeks of the first abdominal section. The conditions found at the second operation are fortunately rare and the adhesion of the intestine was evidently the result of inflammation of the pelvic peritoneum, the volvulus occurring secondarily to the adhesion and being the result of the attempts of the bowel to escape from the band, whilst the band itself by forming a fixed point enabled the twist to occur. As in all such cases the incisions into the bowel were of great service in permitting the replacement of the distended gut and in helping it to recover subsequently.

The symptoms before the first operation were also very unusual and misleading. It is certainly very rare for rigors to occur after perforation of a gastric ulcer, but in this case they were very severe and were accompanied by great pyrexia, the temperature at one time reaching 106°, while the pulse never became really rapid.

At the time of the occurrence of the volvulus, also, the pulse remained below 100, in spite of the strangulation of a large mass of intestine, and although the patient was evidently much collapsed and in intense pain. It is seldom that so serious a condition as was found in this case on opening the abdomen causes so little disturbance of the pulse-rate, but this case, and others which we have seen, should serve as a warning not to place too much reliance on a quiet pulse where the question of laparotomy is under consideration for the relief of such suspected conditions as perforated gastric ulcer and volvulus.

ON SEROUS VACCINIA IN CONNEXION WITH CRETINISM AND RICKETS.

BY ROBERT KIRK, M.D. EDIN., F.F.P.S. GLASG.,
PHYSICIAN TO THE DISPENSARY FOR DISEASES OF WOMEN, GLASGOW WESTERN INFIRMARY.

THE serous character occasionally manifested by vaccine lymph is generally recognised to be of constitutional origin in the majority of cases, but, so far as I am aware, its connexion with cachectic states which may develop subsequently has not received much attention, whence there is reason to hope that the following cases may prove of interest.

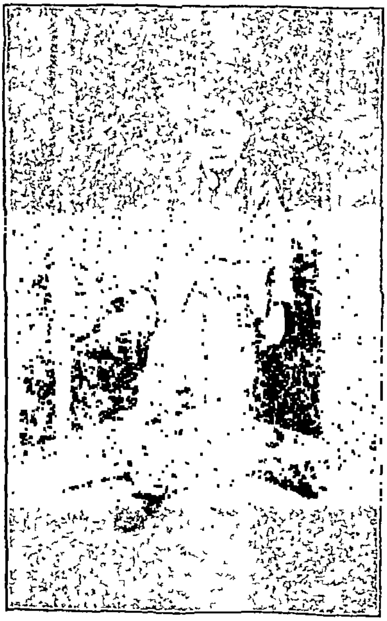
CASE 1. *Serous vaccinia; myxœdema at the age of 34 years.*—This patient, an unmarried female, 40 years of age, the sister of a congenital cretin whose case was reported in 1884,[1] became herself myxœdematous at the age of 34 years. Shortly before or during the early stages of myxœdema she displayed great susceptibility to the action of primula obconica on the skin and experienced several attacks of dermatitis attended with an eruption of bullæ, which yielded a copious flow of thin watery serum, from the mere handling of this plant[2] Her mother states that as an infant she had been extremely liable to become blue on exposure to cold, this being a feature common to most of the cases which follow. Of her vaccination it may suffice to state that lymph was taken from the arm on the eighth day and that it continued to flow freely from it afterwards during the whole afternoon, while both the first and second scabs which formed emitted serum copiously. On the day after the opening of the vesicle (one large insertion had been made) increased redness and swelling supervened, and the former extended from the back of the hand to the left ear, this condition lasting for 10 or 12 days, during which the child was extremely irritable, although her health was not injuriously affected afterwards It is of interest to add, as showing that there were no germs other than those of vaccine in the lymph, that a neighbour vaccinated her own baby from it after the medical man had left and a perfect vesicle resulted which gave no trouble. I may here mention that in the brother of this patient, the congenital cretin already noticed, the vaccine lymph did not manifest the serous character and the same is to be said of another congenital case (a remarkable combination of cretinism and rickets) which I have had under observation. I refrain from commenting on this negative fact in the present article.

---

[1] THE LANCET, August 23rd, 1884, p. 314.
[2] THE LANCET, March 4th, 1899, p. 579.

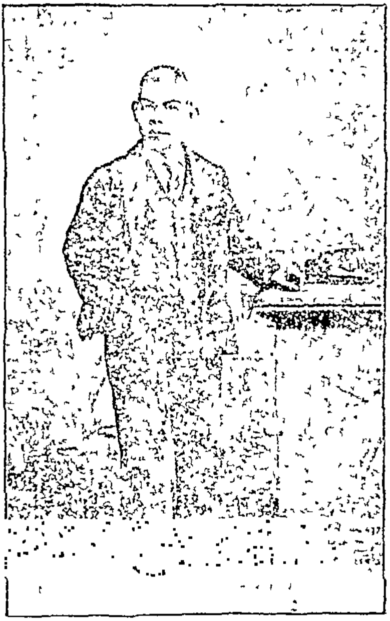
CASE 2. *Serous vaccinia; subsequent cretinism or juvenile myxœdema.*—In this case there can be little doubt that the sequelæ of vaccination led to acquired cretinism, although probably in a predisposed subject, this, I believe, being the first case of the kind recorded. The patient, a young man in his twenty-second year, first came under observation more than a year ago when his height was 4 feet ½ inch and his weight was 5 stones. Of his family history I may only mention that his mother, who died at the age of 47 years, was perhaps myxœdematous, as she was for some years very stout and supposed to be dropsical and is said to have had "a skin like wax and cheeks like roses." The patient's case, when he first came under notice, was a good illustration of what French writers have called *la forme fruste du myxœdème atrophique*[3] and was remarkable for certain negative features; for instance, there was no slowness or other defect of speech, so that when I first showed the patient to the Medico-Chirurgical Society of Glasgow (on March 17th, 1899) the diagnosis of cretinism was generally doubted, and several members expressed themselves strongly against it.[4] Thyroid treatment was commenced on May 13th, 1899, and when the patient was again brought before the Society (on Feb. 2nd, 1900) his height was 4 feet 5¼ inches. At this meeting the President (Dr G. S. Middleton), and Dr. A. G. Faulds suggested that it would be of interest to see the developmental state of the osseous system in the case, and to the latter, who has done some good work with the x rays at the Glasgow Royal Infirmary, I am indebted for a skiagram of the hand and forearm with regard to which he observes in a note that "the bones are in a state of incomplete ossification with non-union of diaphyses and epiphyses similar to the condition seen in a child 11 years of age." This is analogous to what has been observed by Hofmeister and von Eiselberg in the experimental myxœdema of newly-born animals to which the president referred at this meeting.[5] Fig. 1 and Fig. 2 represent the patient as he appeared (Fig. 1) before treatment and again (Fig 2) after he had grown to the height of 4 feet 6½ inches (in May last). In these the relative difference in height is closely preserved. At the date of writing (November, 1900) his height is 4 feet 8¼ inches, so that it will be observed that he has not been growing so rapidly of late.

FIG. 1.



Before treatment.

FIG. 2.



After treatment.

At neither of the above meetings did I refer to this patient's vaccination, this being a subject which I reserved for further observation. The following is a brief account of it derived from statements made by his eldest brother and other relatives. His mother took him to a public institution in this city for the purpose and she afterwards described the operators as being very careful, remarking that they examined behind the ears, the buttocks, &c. She also saw the vaccinifer, from whose arm a number of other infants were vaccinated at the same time, and confessed that it was a fine healthy child, with a beautiful "pock." Six insertions were made and all "took" and from all the six vesicles resulting lymph was taken on the return day. Lymph continued to flow freely from the arm after the mother left the dispensary, and next day redness and swelling supervened and extended by-and-by to the knuckles and the top of the shoulder, and this condition is said to have lasted for two or three weeks. The vesicles meanwhile continued to discharge serum, while the subsequent scabs are said to have done so for several months altogether. Strange as it may seem, the mother did not take the child back to the dispensary and did not call in a medical man till some weeks had elapsed, when the case proved refractory, for the arm was not completely healed for 18 months. From the time of his vaccination the child grew always very slowly, and the height which he finally reached when first seen, at the age of 21 years (4 feet ½ inch), was all completed before he was 10 years old. The unfortunate result in the case was evidently due to gross neglect and mismanagement, but I am here only concerned with the serous character of the vaccinia in its early stages, and as bearing on the constitutional origin of this feature the cases in the following family seem to be of special significance.

---

[3] Grancher: Traité des Maladies de l'Enfance, tome iii, pp. 910 and 916.

[4] Proceedings of the Medico-Chirurgical Society of Glasgow, vol. ii, p. 319

[5] Centralblatt für Anatomie und Pathologie, 1893, p. 353.

CASE 3. *Serous vaccinia in six members of a rickety family of seven children; cretinism in one child.*—The parents in this case were both alive in September last, when the mother died from aneurysm of the aorta and profound anæmia at the age of 66 years. The father is 71 years of age and of the children only three survive, of whom the cretin is one. He is the youngest of the seven and was a healthy child until the age of two years and four months when he was suddenly seized with croup of so violent a type that on the first day of the attack he was apparently suffocating, with crowing inspiration, &c. The medical attendant ordered leeching followed by poulticing; five leeches were applied and the poultices drew a large quantity of blood, leaving the patient ghastly pale. The dyspnœa was instantly relieved and it never returned, and although for a few days the child seemed to be dying he gradually recovered, but only to lapse at once into his present condition of complete cretinism. He is now 26 years of age, is bandy-legged, 3 feet 2 inches in height, and 3½ stones in weight. He has an extremely thin and delicate skin, showing the veins clearly in many places, although rough and scaly in others, a scrofuloderm (besides pseudo-lipomata) in the neck, and two cicatrices over one knee-joint, the remains of a chronic abscess from which he had suffered for many months. The mother had also a similar abscess at one time about the knee, and the entire family betrayed evidence of a marked proclivity to scrofula and (the children at all events) to rickets. On inquiry I ascertained from the mother that vaccinia had manifested the serous character in every member of this family but one, the eldest son, who was not rickety, is still surviving at the age of 36 years, but is now probably phthisical. In all the rest the sites of vaccination had discharged serum for several weeks, although in four of these the vesicles were not opened by the operator but ruptured spontaneously, and this in spite of the fact that one had only one, and another two small vesicles, and that the mother took every precaution to avoid this mishap. This spontaneous rupture happened in the case of the cretin and the only other survivor (also a son); this latter, about 34 years of age, is a pronounced example of rickets and is barely five feet in height, with a disproportionately large head; he did not cut his first tooth till the age of 18 months and could not walk till his seventh or eighth year. In the case of one child, a girl who died at the age of 18 months, the vaccinated arm, after rupturing spontaneously and discharging thin serum for a week or more, became affected by some inflammatory condition, apparently a form of lymphangitis, which extended to the corresponding side of the trunk and, as the mother believes, so undermined the child's health that she never fully recovered from the effects. She describes her as having had blue veins and a delicate skin, and as being very apt to turn blue with cold. She even attributed injurious results to vaccination in other instances, and there seems to be no doubt that vaccinia of this character may readily become the parent of other evils if not promptly and judiciously treated. It is surprising that this form of the affection is not mentioned in some recent works on vaccination or in the final report of the late English Royal Commission.

CASE 4. *Serous vaccinia with symptoms probably indicative of a myxœdematous tendency; spasmodic asthma at the age of six years.*—This patient, a boy aged seven years, was recently brought to me by his mother, an intelligent woman, who reported that of late he was easily tired and did not care to exert himself and frequently complained of sore legs, especially on walking up-hill. She had already regarded him as "delicate" and she said that as a baby he had had a pink-and-white skin and that his face and hands got cold readily. At the age of five years he had an attack of whooping-cough, which clung to him for months, and within the last 12 months he had had frequent paroxysms of an asthmatic character, in one of which I had lately the opportunity of seeing him. Without inquiry on my part the mother adverted to the subject of his vaccination and she drew a picture of a type of serous vaccinia which every experienced vaccinator would at once recognise, so that I need not enter into details. I may add, as a fact not without significance, that I found this lad very easily blistered by a slight application of iodine liniment.

I can here only glance at some conjectures and opinions which I have been led to entertain with regard to the questions suggested by this subject. The records of cretinism (or myxœdema) and facts observed in my own cases have strongly impressed me with the view that constitutional factors play a predominant rôle in the causation of this cachexia, and it would appear that we might sometimes recognise the predisposition to it in infancy by the physical signs and symptoms manifested in some of the above cases, and these, it will be observed, are the same as were formerly assigned to a certain category of the scrofulous. An important fact in favour of this view of the etiology of the disease is the occasional occurrence of more than one case in the same family. The inherited constitutional vice seems to be a common source of various other forms of degeneration and disease, depending probably on the incidence of different exciting causes; thus, besides serous vaccinia, I have encountered in myxœdematous subjects and other members of the families to which they belong instances of blindness, deafness, mouth-breathing from nasal obstruction, tuberculosis, and rickets, besides such neuroses as spasmodic croup and spasmodic asthma (a notable example of the latter being a brother of the patient in Case 1). Passing over other problems I would here limit attention to the question: Is the thyroid specially concerned in the production of serous vaccinia and serous types of other affections? Briefly I would answer that the evidence seems to show that such is the case in many instances, although it would be hard to speculate on other factors which may sometimes coöperate. It would appear, further, that the condition of the gland in such cases is one in which it is prone to atrophy from exciting causes which would otherwise prove inefficient. The identity of the effect, so far as serous exudation is concerned, produced in Case 1 by vaccination and by the action of primula obconica and the subsequent development of myxœdema in the case seem to be facts of much significance. It would appear that we ought to recognise the existence of a serous as emphatically as we do that of a hæmorrhagic diathesis, and it is probable that the two are intimately related to each other, while it is evident that both are associated with great vulnerability of tissue by various morbific agents. Thyroid treatment has proved of value in hæmophilia and some of the other affections which have been here clinically grouped together, and quite recently I had a case of nasal hydrorrhœa of three years' duration in a girl, aged 12 years, which was promptly arrested by it. This is conclusive evidence if corroborated by further experience.

It has been concluded from experiments by Schiff and Horsley that the thyroid has an antitoxic action on certain toxic substances resulting from the digestion of albuminous bodies, and I would further ask, Is it possibly concerned also in defending the organism against the germs of some zymotic diseases? If the healthy gland is necessary to produce the viscid lymph of normal vaccinia it is readily conceivable that it may perform an office of this defensive kind, whether it has any toxin-destroying power or not. For lymph of a certain degree of viscidity may act as a bulwark of defence, limiting, perhaps, the multiplication of organisms and the amount of toxins produced and absorbed, whereas when it is of the serous character opposite results may ensue. I venture to submit, not without hesitation, a suggestion on this subject. It is that vaccination and perhaps experiments on vesication should be performed on calves and a few other animals after extirpation of the thyroid. It seems probable that the greater viscidity of calf lymph as compared with human lymph may be due to greater energy of the thyroidal function, this being probably necessary to maintain the higher temperature and more rapid growth of the calf. When we further reflect on the profound changes effected in experimental cachexia strumipriva, the diminished coagulability of the blood, and the leucocytosis and anæmia, as described by Halliburton and Horsley,[6] it is not unreasonable to suppose that some modification in the course of vaccinia or in the character of the lymph produced might be observed. And, if any such should be found to occur, experiments on variolation might be once more tried in the same condition of the bovine animal.

Glasgow.

---

[6] Report of the Committee on Myxœdema.

THREE CASES OF SARCOMA OF THE UTERUS.

By E. OCTAVIUS CROFT, M.D. Durh.,
HONORARY SURGEON TO THE HOSPITAL FOR WOMEN AND CHILDREN, LEEDS; DEMONSTRATOR OF OBSTETRICS IN THE YORKSHIRE COLLEGE, LEEDS.

Primary sarcoma of the uterus is undoubtedly a very uncommon disease, but in all probability its rarity is considerably over-estimated. Such a large number of cases of malignant disease of the uterus come under observation only when the disease is so far advanced that anything more than palliative treatment is impossible and therefore a careful pathological examination of the nature of the growth is not made and it is possible that many of these cases may have been of sarcomatous rather than of carcinomatous malignancy.

Mr. Roger Williams in his recent book[1] states that his analysis of 2649 consecutive cases of primary uterine neoplasms comprises only two examples of sarcoma to 1571 cancers He does not state whether these were all confirmed pathologically, but I presume that they were. Recently, however, interest has been aroused in this disease and cases are being recorded more frequently. The following cases are therefore, I think, worthy of reporting, especially as they exemplify three very distinct varieties of the disease both in their clinical and pathological features.

Case 1.—The patient was a married woman, aged 39 years, who had had one child and who had had no abortions. Menstruation, which commenced at the age of 14 years, was regular, copious, and not very painful. The patient was married in 1893. About six months after her marriage the menstrual flow increased and she was operated upon for something which was said to have protruded from the vulva when she strained. In 1895, the menorrhagia having returned, she came under my care at the Hospital for Women and Children at Leeds and I found and removed several polypi from the cervix and the uterine cavity which was scraped. These growths had all the appearances of ordinary mucous polypi. The condition of the patient so far improved that a few months afterwards pregnancy occurred and her only child was born after a normal labour at the end of 1896. About six months after confinement and on two subsequent occasions some polypoid growths were treated by various surgeons, on the last occasion the operation being stated to have been radical. On May 13th, 1899, the patient returned to the hospital for urgent bleeding and severe anæmia. The uterus was found to be enlarged and a polypoid mass of growth of about the size of a fist occupied its cavity. This was scooped away and the cavity was cleansed and packed with gauze. It was then found that there was a further growth in the left wall of the uterus. Examination of the tissue which had been removed proved it to be undoubted sarcoma. When her general condition had improved ether was given with a view to radical operation if found possible. It was then found that in addition to the growth in the uterine wall a further large mass existed burrowing deeply between the layers of, and at the base of, the left broad ligament. It also extended upwards above the brim of the pelvis and was closely related to the bladder in front and the rectum behind. The disease was clearly irremoveable. The growth then slowly increased and occasional attacks of bleeding required treatment by packing. The patient's health steadily failed. Twelve months afterwards she was again in the hospital, the discharge, which had become foul, having produced septic symptoms. The growth was then found to have increased greatly. A large mass occupied the lower half of the abdomen, three rounded masses being especially prominent. One of these could be identified as the uterus enlarged with an intra-uterine mass. The sepsis was relieved, but the patient gradually became weaker and she died from exhaustion in September, 1900. A noticeable and fortunate circumstance in the case was an almost entire absence of pain throughout. There were no symptoms or signs indicating the presence of secondary growths in other organs.

The nature of the growth, which was examined on several occasions, proved to be an undoubted round-celled sarcomatous infiltration of the uterine tissue. There was no evidence of any structures in the specimens which might suggest the case to have been one of deciduoma malignum. The fact, however, that the polypi which were removed before the pregnancy were apparently innocent and that the malignancy of the disease asserted itself a few months after confinement is a point of great interest. If the exact nature of the growth had been ascertained on its recurrence after the confinement it is possible that a radical operation (hysterectomy) at that time might have saved the patient. The condition was only discovered when secondary growths rendered operation impossible.

Case 2.—The patient, a widow, aged 66 years, was the mother of four children Her last confinement had taken place at the age of 40 years. The menopause occurred naturally in her forty-sixth year. For seven or eight years there had been a slight, occasionally blood-stained, discharge from the vagina, but this discharge had become much increased during the last few months. She complained of very little pain until about six weeks before I saw her, but during that time the pain in the lower abdomen had been severe. There had been marked loss of flesh recently. On examination there were great pain and tenderness in the hypogastric region, so much so that thorough examination was impossible. Vaginal examination revealed a patulous cervix free from disease, an enlargement of the uterus, and an offensive blood-stained discharge issuing from its cavity. The patient was examined under ether The uterus was then found to be generally enlarged, its fundus reaching two or three inches above the pubes, and there was evidently some peritoneal effusion and adhesion. The interior of the cavity of the uterus was found to be roughened and irregular with new growth which was specially abundant near the fundus. This part was necrotic and it easily broke down. Owing to the presence of the peritonitis and the general condition of the patient extirpation was impossible. The uterine cavity was cleansed as far as possible of foul tissue and was packed with iodoform gauze. Portions of the growth were preserved for examination. The patient did not improve and eventually she died from the peritonitis.

The growth consisted of a very vascular sarcoma consisting of bundles of spindle cells with many vessels and much blood. It is probably an example of the diffused sarcoma of the connective tissue of the uterine mucous membrane.

Case 3.[2]—A married woman, aged 32 years, the mother of four children, was sent to me in June, 1898, by Dr. C. J. R. McLean of Yeadon for metrorrhagia following the expulsion of a vesicular mole. Menstruation, which commenced at the age of 14 years, was never regular, the flow appearing about every six or eight weeks and lasting for two or three days. It was then scanty and painless. The patient had married when she was 26 years of age, and having had four pregnancies in rapid succession and three of the infants having been suckled menstruation was practically absent during the whole of this period The labours were all difficult. The second child was delivered stillborn with instruments. The fourth and last child was born two years before I saw her and she had never been well since, but always anæmic and weak. The child was suckled for 18 months, and soon afterwards menstruation returned two or three times and then followed a flooding. The uterus then rapidly enlarged, and the flooding recurring a vesicular mole was diagnosed and the uterus was cleared by Dr. McLean. The uterus shrank and the bleeding ceased, but a watery discharge continued, increased, and became offensive and occasionally bloody. When sent to me the patient was extremely anæmic and her temperature was 103° F. The os was patulous, the cervix was soft, and the uterus was enlarged, the sound passing three and a half inches, and freely moveable. Under ether the uterine cavity was explored. The finger detected a rugged friable mass attached to the upper and posterior part of the uterine wall. It gave the impression of a malignant growth. The free portions were carefully removed with a scoop and the cavity was irrigated and packed with iodoform gauze. The growth was preserved for examination. The septic condition subsided and the patient improved. The growth was examined independently by several pathologists who all agreed that it was sarcoma,

---

[1] Uterine Tumours, 1901.

[2] The specimen from this case was shown at a meeting of the Leeds and West Riding Medico-Chirurgical Society in October, 1898.

The report of the Clinical Research Association was to the effect that the tissue consisted of uterine muscle substance infiltrated with sarcoma. The cells were spindle-shaped and many of them were very large. The characters of the growth were not like those of deciduoma malignum. The uterus was consequently extirpated by vaginal hysterectomy and the patient made a good recovery. I examined the patient a few months ago—that is, just two years after the operation—and I found her to be free from disease and in good general health. I have recently heard that she continues well.

The uterus when removed showed no signs of growth externally. On opening its cavity by a vertical incision through the anterior wall the disease was seen to consist of a small, reddish, lobulated sessile growth situated on the upper and posterior part of the uterine wall and projecting towards its cavity. The other portions of the uterine wall presented no naked-eye evidence of disease. Further microscopical examination of sections direct from the growth after removal confirmed the previous diagnosis.

Leeds.

A CASE OF RECOVERY AFTER OPERATION FOR DIFFUSE PERITONITIS FROM PERFORATION OF THE APPENDIX

BY RUSSELL COOMBE, M.A., M.D. CANTAB., F.R.C.S. ENG.,
SURGEON TO THE EXETER DISPENSARY.

THE case which I have described below may prove of interest when read in conjunction with the case reported by Mr. Charles A. Morton.[1] The infection was obviously widespread, as in that case, but I acted in the operation on the belief that the upper part of the general cavity was free and that it was my business to leave it so. On the other hand, the pelvic part of the cavity was full of dirty fluid, which was most thoroughly sponged out and the cavity drained. The consecutive abscess in the left scrotum was doubtless due to a patent funicular process on that side.

On March 1st, 1901, I was asked by Dr. A. Macindoe of Sidmouth to see a patient a boy, aged 14 years. The past history of the patient was unimportant, there being a record of an occasional stomach-ache but nothing more. The boy was perfectly well on Feb. 25th. On the next morning he had some pain which he referred to the region of the appendix. He felt sick and had lost his appetite, but he sat up all day. He was first seen by Dr. Macindoe's locumtenent on the morning of the 27th. He had had some shivering during the night and had begun to be sick, with severe abdominal pain which had kept him awake all the night. The vomit was at first bilious, becoming darker afterwards. The bowels had acted. The abdomen was distended, more especially on the right side. The temperature was 104° F. Dr. Macindoe first saw him on the 28th. He was still very sick and the abdomen was much distended.

I visited him late in the afternoon of March 1st when the sickness had stopped, but the boy was obviously very ill. His temperature was 102°, his pulse was 132, and his respirations were 36 He had a hard, dry, red tongue with moist edges, and the respiration was chiefly thoracic. The lad lay on his side with his legs drawn up. The abdomen was generally swollen but it was very markedly so in the neighbourhood of McBarney's point, there being already some redness and œdema in that situation. It was impossible to operate that night, but as early as possible on the next day (March 2nd) I opened the abdomen by an oblique incision reaching as far down as the deep epigastric vessels. On dividing the peritoneum at the upper part of the wound I at once came on an abscess extending upwards outside the ascending colon towards the liver. The pus, which had a strong fæcal odour, was carefully sponged out of this. The edge of the omentum, which lay on the inner side of the wound between the large bowel and the parietes, was not disturbed at the upper part, as there was a little glueing together of the peritoneal surfaces, but in the direction of the pelvis there was not the faintest attempt at any barrier and the fingers passed right down into the pelvis to the roof of the bladder, a large quantity of dirty brown-tinted blood welling up as the coils of intestine were separated. This fluid was sponged away as it welled up, and when this ceased the sponges were continually passed down into the pelvis until they returned dry. Two large drainage-tubes were then inserted, one going to the sub-hepatic pouch, the other down into the pelvis. The appendix itself was not seen.

The after-treatment was simple. Half a grain of calomel every hour for eight hours and a rectal tube did wonders in relieving the abdominal distension. A concretion of the size of a butter bean came away from the upper part of the wound on March 27th, the wound healing entirely a few days later. The only drawback during convalescence was that on the third day after the operation the scrotum became inflamed and an abscess slowly developed in the left tunica vaginalis. This was opened on March 13th and about three ounces of very foul pus escaped. The boy is, I hear, now about and well.

Exeter.

---

[1] THE LANCET, April 20th, 1901, p. 1134.

ON THE USES OF DIPHTHERIA ANTITOXIN.

BY T. B. BROADWAY, M.B., B.CH. GLASG.

AT a time when the antitoxin treatment of diphtheria is still in its infancy, when there are many who use it doubting its value—hence tardily and inefficaciously—and still a few who have no faith in its efficacy whatever, the putting in black and white of the successful cases that have occurred in the hands of those who have used the serum may help to its getting a fair trial and may be the means of not only saving the lives of patients, but of cutting short the attack and hence saving the patient from many of the sequelæ that follow. From October, 1898, to October, 1900, I have treated about 30 cases of this disease, the oldest patient being a child aged 13 years, and the youngest a child aged two years, and with the exception of half-a-dozen were treated with the antitoxin, the result being that of those treated with it only one of the number died, whereas of the six patients treated along the ordinary lines two died and two developed post-diphtheritic paralysis. The two latter unfortunately neither at the time nor at any time of the treatment showed a membrane, and I treated them for a simple angina of the throat, and it was not till the paralytic symptoms developed that it struck me that they had had diphtheria. These two cases were also the starting-point of an epidemic. In one case paralysis affected the limbs, whereas in the other case the thoracic muscles and the muscles of deglutition seemed to be especially affected; there was some loss of power in the arms, but the lower limbs seemed to escape altogether.

In the case treated with antitoxin that resulted in death the patient was seen by me first on the third day of illness. He was 11 years old and at the time when I saw him he had difficulty in breathing and in swallowing. On examining the throat I found a membrane, somewhat greyish in colour, covering the naso-pharynx, tonsils, and uvula, with an offensive discharge from the nares and enlargement of the glands of the neck. After carefully washing the lumbar region with turpentine, rectified spirit of wine, and perchloride of mercury (1 in 1000) I injected 2000 units of the serum obtained from Burroughs and Wellcome and at the same time ordered inhalations of carbolic acid. On calling again I found the boy much easier in his breathing and his father told me that he had been able to swallow his milk more easily and, in fact, was constantly calling for some. On examining the throat I found the membrane greatly reduced. I then again injected 1500 units of the serum and after leaving injunctions that the boy was on no account to be allowed to sit up left with the full conviction that he would do well. Soon after my leaving he coughed up the membrane and slept soundly, but unfortunately on his father leaving the room he sat up and tried to help himself to some milk and fell back dead, death being due to cardiac failure. This was a lesson to me in giving a prognosis, and in all my other cases I took care to place the patient on a cardiac stimulant, the one generally used being a mixture containing two drachms of solution of perchloride of iron, one drachm of solution of strychnia hydrochlorate, with glycerine and water to six ounces; one or two drachms every four hours. To this and also to the care which I took in explaining to the parents or nurse of the child the reasons for keeping the patient as still as possible I think I owe my success in serum treatment.

In aborting serious symptoms serum again holds the field. In the case mentioned it cut short the dyspnœa and allowed the patient to swallow with ease; in other cases, and especially in one, I noticed the great relief produced soon after the injection of the serum. In this case the child was two years old and had been ill for two days previously to my seeing her. When I arrived I found the child flushed in the face, tossing about with a short, constant, hacking cough; as she was only two years old I could elicit nothing from her, so I had to trust to my observations and the mother's statements. I found that the temperature registered 99 6° F. I tried to examine the throat, [illegible] to the restlessness of the chi [illegible] angle of the jaws enlarged. T [illegible] could not "clunk" (swallow) her food with ease and also that she had two or three attacks of croup for which she gave her ipecacuanha wine, but without much benefit; she further stated that the child had had practically no sleep for the past two days. After carefully cleansing the part I injected in the gluteal region 1500 units of serum and waited to see its effects. In half an hour I found that the temperature had risen about a degree—that is, it registered 100 6°. I then left and called again in the evening, when the mother told me that the child was sleeping and that she had practically slept from the time I left in the morning; in fact, it made her a little nervous. I now found the child's temperature to be 99°, but as there still seemed to be some difficulty in swallowing I gave her another injection of 1500 units of serum and left. On the next morning I found that the patient had passed a fair night and had taken a good quantity of milk; her temperature, however, was 99 8°, so I gave her another injection of 1500 units of serum. I did not see the patient again till next morning, when her temperature was 98°, and as she also seemed to be fairly well otherwise I did not give her any more injections but put her on one drachm of compound solution of phosphate of iron every four hours. The patient did very well.

Space prevents me from giving a description of the other cases, but what I wish to impress on all is, first, that the serum treatment of diphtheria has placed the prognosis of this disease in a more favourable light and if used early practically saves life; secondly, it preserves the patient from the serious sequelæ that often follow recovery from it; thirdly, if proper antiseptic precautions are taken no abscesses form at the seat of injection; and lastly, the almost instantaneous relief which it gives to very distressing symptoms would alone justify its use, especially in a country practice where often medical help for a tracheotomy is hard to procure. Probably the injection of a saline solution at the same time as the antitoxin, as advocated in THE LANCET by Dr. E. E Laslett,[1] would add to its efficacy.

In very young children I found the gluteal or interscapular region the best for injection; in older ones I often injected into the loose tissue of the breast, but when the child showed dread of the operation I injected into the gluteal region instead. The chief difficulty which I found in using the serum was the prejudice of the parents, and as, unfortunately, they usually belong to the illiterate and unthinking class it is hard to reason them into believing in the serum, though when they do allow its use and see the good which it does they are the very class to carry its praises far and wide.

In closing I would add that to procure good results from the serum it should be used early, *freely*, and in all doubtful cases of sore-throat, for even if it is not diphtheria the serum will give rise to no bad results. To wait till the diagnosis is confirmed by bacteriological examination is throwing away precious time. A swab should be sent for examination, but at the same time the serum should be used. I may here add that I found it beneficial to give some simple mouth-wash or gargle, such as boric acid, chlorate of potash, and glycerine, as it helped to keep the mouth, &c, fairly sweet. An inhalation of formic aldehyde, carbolic acid, or turpentine helped to check the spasmodic cough which is often so troublesome.

St. Dennis, Cornwall.

---

[1] THE LANCET, Oct. 20th, 1900, p. 1131.

THE RESPIRATORY MOVEMENTS OF THE PRÆCORDIAL AREA IN HEALTH AND IN DISEASE.

BY J AIKMAN, M.D. GLASG.

FOR about two years I have given some attention to certain modifications of the chest movements during the respiratory act in the region known as the præcordial area. These modifications seem to indicate acute or chronic disease and also to forecast the advent of it. In the hope that my observations may offer a useful guide in practical work I venture to call some attention to their detail.

Normal.—Anyone who will carefully compare the third intercostal space on the left side with that on the right may convince himself that the left intercostal space rises and falls at its sternal end during the respiratory act to an appreciably less degree than the right. He will become cognisant that the area of limited *movement is very small* It does not extend to the left beyond the junction of the cartilage to the rib. It does not usually extend upwards to the second intercostal space except in young children, but it does extend to the fourth intercostal space, and below that it is masked by the apex beat. I think that in children the cartilages of the ribs show lessened movement over the præcordial area, but the intercostal spaces show it more markedly. The comparatively still area is only discoverable in the normal chest when care has been taken to place the patient in a perfectly normal position He should lie flat on his back in bed, his head should be straight, his shoulders and hips square, his legs straight, and his arms laid along his sides. In a twisted position the condition is not obvious. Lateral curvature of the spine masks it. So does rachitic deformity of the chest. This remark applies to all information which can be gathered from the respiratory movements.

In pericarditis.—While watching the respiratory movements during the course of acute rheumatism I have found that a marked diminution of the movement in the third left intercostal space precedes the stethoscopic signs of pericarditis by a period varying from one day to four days. In a much shorter period the limitation of movement extends to the second, and even to the first, intercostal space, and increases, less markedly, to the left. By this time both the costal cartilages and the intercostal spaces are involved, but there may be neither extension of the dull percussion note nor friction sound. I have never been disappointed in my expectation to find both at a later date. So far I have never waited more than four days but more often I have found conclusive evidence after one or two days. Continued observation of such cases has taught me that this limitation of chest movement disappears with recovery and reappears as a prognostic sign of relapse. Should these observations be verified by other hands they ought to have some bearing upon treatment.

In endocarditis.—The variations of chest movement which prognosticate and evidence endocarditis are less in degree. They are least marked when the right side of the heart is involved but I have been able to distinguish them. Their extension is less upwards and more outwards. The downward extension is attended by a displacement of the apex beat. I have also noted that the return of movement follows more slowly the diminution of stethoscopic signs and that some limitation remains as a record in cases where permanent damage is done.

The result of a careful examination of many cases of old-standing cardiac disease with compensatory hypertrophy or dilatation, convinces me that the præcordial stillness is wider than normal. The explanation may be identical with that of normal stillness—the indication may be the physiological record of a pathological fact. I have recently noted the same phenomenon previously to death from ante-mortem clotting.

These observations have been checked by some of my professional friends—Dr A. S. Dick (now of Glasgow) and Dr. R. Scott Frew who is working with me at present.

When Dr. W. J. Collinson was appointed house physician to the Royal Berks Hospital, Reading, I put the subject before him and asked him to observe. I quote his cases rather than my own, as they give the records of an independent observer. He writes under date Feb. 26th, 1901:—

> Only five cases of rheumatism came into hospital free from cardiac trouble. Of these five, three developed cardiac symptoms, and in each of them the sign of which you told me was well marked.
>
> No. 1, Mrs. ——, admitted Oct. 20th, 1900. Heart normal; expansion of chest normal. Oct. 21st: deficient expansion on left side. Oct. 24th: systolic murmur heard in mitral and pulmonary areas. Subsequently disappeared.
>
> No. 2, —— ——, aged 18 years, admitted Nov. 26th, 1900. Heart sounds and chest expansion normal. Nov. 29th: deficient expansion on left side of chest. Nov. 30th: systolic murmur in pulmonary area. Jan. 15th, 1901: systolic murmur in pulmonary and mitral areas.
>
> No. 3, —— ——, aged 19 years, admitted Jan. 28th, 1901: heart sounds and chest expansion normal. Jan. 31st: deficient expansion of left chest. Feb. 2nd: heart sounds faint, no murmur (myocarditis). Feb. 5th: well-marked pericardial friction. This patient died and pericarditis, endocarditis, and myocarditis were found post mortem.

It seems to me incredible that this sign should not have been previously recorded, but I know of no such record. I advance it for the consideration of the profession in the belief that it will prove true and useful.

Guernsey.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON THE RESULTS OBTAINED BY THE ANTI-TYPHOID INOCULATIONS IN EGYPT AND CYPRUS DURING THE YEAR 1900.

BY A. E. WRIGHT, M.D. DUB.,
PROFESSOR OF PATHOLOGY, ARMY MEDICAL SCHOOL, NETLEY.

I AM indebted to the kindness of Colonel W. J. Fawcett, R.A.M.C., Principal Medical Officer in Egypt, for the following statistics dealing with the incidence of enteric fever and the mortality from the disease for the year 1900 in the inoculated and uninoculated among the British troops in Egypt and Cyprus.

—	Average annual strength.	Number of cases of enteric fever.	Number of deaths from enteric fever.	Percentage of cases calculated on average annual strength.	Percentage of deaths calculated on the same basis.
Uninoculated ...	2669	68	10	2·5	0·4
Inoculated... ...	720	1	1	0·14	0·14

These figures testify to a nineteen-fold reduction in the number of attacks of enteric fever and to a threefold reduction in the number of deaths from that disease among the inoculated.

In a note appended to the statistical table printed above Colonel Fawcett observes that the measure of protection resulting from the inoculation is not fully disclosed by a comparison of the figures of cases and deaths given in the table. Owing to the circumstance that soldiers inoculated in previous years are in the statistics included among the uninoculated, the number of the uninoculated was in reality less, and the number of the inoculated was in reality greater, than the figures set down for these groups in the first column of the above table. The figures in the second and third columns, on the other hand, accurately represent the number of cases and deaths in the inoculated and uninoculated, inasmuch as none of those inoculated in previous years contracted enteric fever.

A further point adverted to by Colonel Fawcett is that the only case which occurred among the inoculated occurred in the case of a patient admitted to hospital on the thirty-third day after inoculation. It would seem that the disease was in this case contracted before anything in the nature of protection had been established by the inoculation.

Netley

PRIMARY LARYNGEAL DIPHTHERIA.

BY E. M. SPENCER, L.R.C.P. & S. EDIN., M.D. TORONTO.

THE case of suspected laryngeal diphtheria published in THE LANCET of April 6th, p. 1009, by Mr. A. De Winter Baker induces me to send a short note of a very similar case, but one in which laryngoscopy was available leading to a positive diagnosis. On March 17th, 1901, I was called in to see a boy, aged 14 years, who was said to have a "cold." I found the patient dressed and, with the exception of slight hoarseness, seemingly not very unwell, with a pulse of 104 and of good volume, and complaining merely of slight sore-throat. A careful survey of the pharynx revealed nothing but a little hyperæmia of the fauces, and I made a diagnosis of slight laryngitis and expected the patient to mend soon. On the following day, however, I received a message that the boy seemed very "bad in his throat," and on my second visit he was suffering from constant slight dyspnœa with occasional exacerbations of urgent distress, accompanied by great excitement and cyanosis. There was now complete aphonia. Inspection of the pharynx revealed nothing but the slight redness noticed before. There was marked stridor on auscultating the trachea which became very loud on the accession of an attack of "suffocation" which was doubtless partly spasmodic. I inquired as to the possibility of lodgment of a foreign body, but this was negatived. Seeing that the case was urgent and rapidly growing worse I had the patient removed to my house for purposes of examination. Laryngoscopy revealed firstly great redness and swelling of the arytenoids, and then a larynx and a trachea literally full of typical diphtheritic membrane, the trachea being reduced, as far as I could judge, to about one-third of its normal diameter. The boy returned home and I followed immediately and injected 2000 units of anti-diphtheritic serum. The patient has made a steady recovery and is now practically well. At no time was a trace of membrane visible to ordinary examination. The aphonia was complete for a week, but the voice has now regained considerable volume.

Modbury, Devon.

FOREIGN BODY IN THE EAR.

BY L. K. HENCHEL, M.D. VIENNA.

THE following short account of a case in which a foreign body was impacted in the ear may, I think, be of interest.

The patient was a girl who, when five years old, had a bead of a rosary put into her ear in sport by a playfellow. This fact was kept secret from her parents and teachers (nuns) for two and a half years. After that time the ear was so troublesome that the child was taken to a specialist and then the story came out. The second time this specialist syringed the ear a white bead was found in the basin, but the girl remarked that the rosary from which the bead had become detached was a black one. No attention was paid to this remark at the time. For two and a half years the child suffered more or less from irritation in, discharges from, and pains in, the ear with loss of hearing. The case came to me on Feb. 15th, 1901, with a well-developed furunculosis. As the swelling in the meatus subsided under treatment I saw a black object partially obscuring the membrana tympani, and on syringing with moderate force a shell of japan lacquer came out. The meatus was very much reddened where the foreign body had lain so long—namely, for five years. When the little patient came to me the next day she had a rather severe hæmorrhage from her ear. I could plainly see blood oozing out from the reddened surface. I moistened some pure cotton with liquor ferri sesquichloridi, twisted it firmly over a fine boxwood stick, such as is commonly used on the continent for a toothpick, and under the guidance of the light applied it to the bleeding surface. The further history of the case was quite uneventful. The blood-clot formed by the styptic came away in two portions several days afterwards and the girl, who had been unable to hear a watch quite close to the affected ear, can now hear it as well as with the other ear, and a tuning fork is heard better now with the affected ear than with the other one. Neither the rosary nor the white bead is now to be found, a thing not to be wondered at after a lapse of several years.

Villa Carlotta, Bordighera.

A Mirror
OF
HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Prœmium.

ST. GEORGE'S HOSPITAL.

TWO CASES OF SARCOMA DERIVED FROM THE PERIRENAL RETRO-PERITONEAL TISSUE ON THE RIGHT SIDE CONTAINING A PSEUDO-CYST.

(Under the care of Dr. H. D. ROLLESTON and Mr. G. R. TURNER.)

THE importance of the subperitoneal tissue as a site for new growths and other morbid processes was not fully recognised before the late Mr. William Anderson's very able paper read at the Carlisle meeting of the British Medical Association. Most of the retro-peritoneal sarcomata grow but slowly; a very good instance of this was reported by Meeringer.[1] Histologically the majority of these growths are spindle-celled sarcomata with a varying amount of fibrous tissue.

CASE 1.—A woman, aged 41 years, was admitted into St. George's Hospital in June, 1899, with the history that she had previously had some signs of more or less intestinal obstruction and was losing flesh. She was a spare woman, with a hard, moveable tumour rather smaller than a cricket-ball in the right iliac and lumbar regions. She had no abdominal distension or signs of intestinal obstruction, but it was thought that she might have malignant disease of the cæcum which did not involve or obstruct the ileo-cæcal valve. After she had been in the hospital for some time she became insane and refused to take her food, so that nasal feeding became necessary. This suggested that there was possibly a secondary tumour in the brain; ophthalmoscopic examination showed that the optic discs were normal. The mental condition continued and, getting weaker, she died.

Necropsy.—At the post-mortem examination, which was performed by Dr. Lazarus-Barlow, the pia-arachnoid of the brain was found to be opaque as in chronic alcoholism, but otherwise the brain presented no gross lesion. In the abdomen a tumour surrounded by a capsule was found lying behind and to the right of the second part of the duodenum and almost in contact with the hilum of the right kidney. The growth had no structural connexion with the kidney, ureter, or suprarenal capsule, all of which were healthy. It was adherent to the right side of the second part of the duodenum. On slitting up the latter a raised crater-like orifice as big as the end of the little finger was found in the lower part of the second portion of the duodenum, well below the opening of the biliary papilla (*vide* Fig. 1). This sinus led into a pseudo-cyst (*vide* Fig. 2) contained in the tumour, evidently produced by breaking down of the white growth. There were no growths elsewhere, and except for a small lipoma attached to the mucous surface of the ileo cæcal valve the other organs were natural. The tumour appeared to have arisen in the retro-peritoneal tissue over the kidney close to the second portion of the duodenum and subsequently to have become adherent to the bowel. It did not appear to have originated in the wall of the duodenum. The tissues round about the tumour were very lax and readily allowed the tumour to move downwards towards the right iliac fossa. This probably accounted for the tumour having during life appeared to be in the region of the cæcum.

Microscopically the growth was a medium-sized spindle-celled sarcoma showing fibrification; in some places smooth muscular fibres with rod-shaped nuclei were present; but the mass of the tumour was undoubtedly sarcomatous. Sections taken from the wall of the pseudo-cyst showed inflammation and necrotic changes.

For the excellent drawings illustrating this case we are indebted to Dr. E. A. Wilson.

CASE 2.—A man, aged 45 years, was admitted into St. George's Hospital with pain in the right hypochondrium which radiated to the shoulders. In the last three months he had lost a stone in weight. There was no history pointing to the likelihood of hydatid infection and syphilis was denied. Two years before he had jaundice and lead colic. He was a thin man with some emphysema of the lungs, but otherwise the thoracic organs were normal. In the abdomen there was a hard tumour continuous with the liver and in the position of the gall-bladder, which bulged into the loin. The surface of the tumour was irregular and a grating sensation suggesting peritoneal friction could be felt over it. There was no thrill or fluctuation. The percussion note over it varied, being sometimes dull and sometimes partially resonant. The urine was natural and there was no jaundice. The diagnosis lay between a renal growth and a tumour growing from the under surface of the right lobe of the liver. He was put on full iodide treatment but without any beneficial result. After he had been under treatment for a fortnight he had pain in the right testicle pointing to some interference with the renal plexus. As the man desired to have something done to relieve his pain Mr. G. R. Turner saw him and agreed to perform an exploratory operation, with a view of, if possible, removing the tumour.

The operation was performed on May 11th, 1900. An incision made in the right linea semilunaris exposed a tumour of the size of a child's head arising from the region of the right kidney and projecting up under and below the right lobe of the liver from which, except for adhesions to the gall-bladder, it was quite free. The tumour had a vascular capsule, but save for its connexions to the back of the abdomen was not united by adhesions to any of the abdominal viscera except the gall-bladder from which it was peeled off. At the back of the abdomen, however, it appeared to be adherent to the inferior vena cava, above, and to the right of, the mesentery. Considering the freedom of the tumour from adhesions and its large size it seemed probable that it might not be a malignant tumour and that its removal, though a formidable task, was justifiable. The capsule contained a number of large veins and bled freely on being incised. Several layers of fibrous tissue were cut through and it was then found possible to peel the capsule off the tumour. The very deep connexions of the tumour to the back of the abdomen made entire removal so dangerous that it seemed safer to remove as much as possible of the tumour piecemeal. This was accordingly done and resulted in the removal of nine ounces of whitish-grey growth closely resembling to the naked eye a fibromyoma of the uterus undergoing early myxomatous degeneration. There was no cavity or pseudo-cyst in the tumour. Some of the tumour together with its capsule was left behind.

Microscopically the tumour was a fibrifying sarcoma composed of medium-sized spindle-cells with oval nuclei. In places there was commencing necrosis of the new growth. A few muscular fibres, with rod-shaped nuclei, probably derived from the subperitoneal tissue where they are normally present, were seen.

A considerable quantity of blood-stained discharge necessitated the dressings being renewed twice in the first 24 hours. Sickness then set in, but was relieved after the plugs of gauze were removed. The patient slowly recovered, and the wound having almost healed he left the hospital, but he returned in August with increase in the size of the tumour and pus discharging from a sinus about the middle of the wound. The patient developed a hectic temperature, had rigors for a week before death, and rapidly went down-hill.

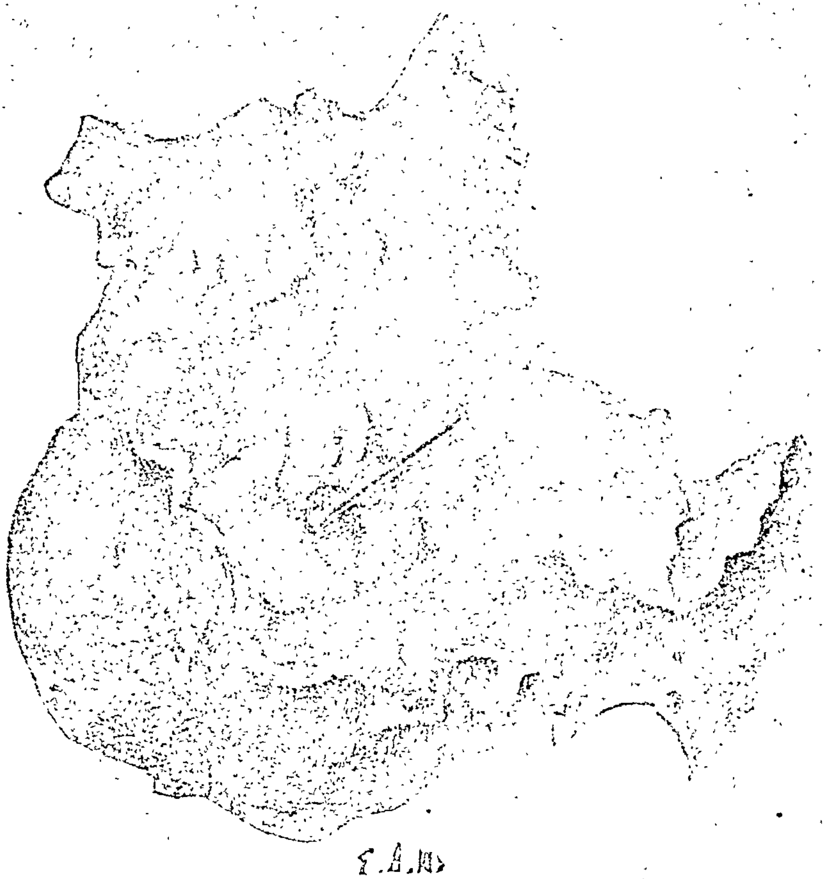
Necropsy.—At the post-mortem examination, which was performed by Dr. O. F. F. Grünbaum, it was found that there was a large white tumour adherent to the scar, the under surface of the right lobe of the liver, and the small intestines. It arose from the retro peritoneal tissues over the right kidney, and though readily separated was adherent to the outside of the capsule of the kidney in its anterior third. The right suprarenal body was healthy and independent of the growth. The growth, which was lobulated and of the size of a man's head, contained a central cavity filled with about three-quarters of a pint of dark brown very offensive fluid—sanious pus. There were no secondary growths in the body.

Microscopically, the growth was adherent by its capsule to the surface of the liver; but there was no invasion of the liver by new growth. The tumour had evidently contracted

---

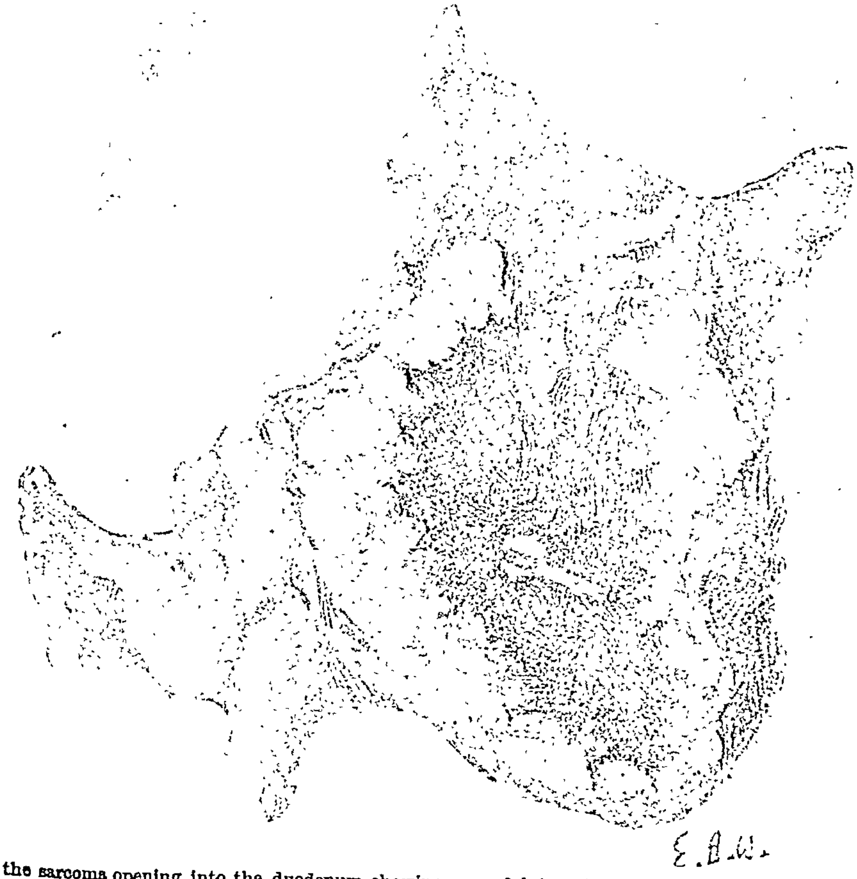
[1] Wiener Allgemeine Medicinische Zeitschrift, 1898, No. 34.

FIG. 1.



Interior of the second part of the duodenum showing crater-like orifice through which the pseudo-cyst in the sarcoma discharged. The outside of the tumour is also seen. A pointer is shown passing through the perforation. (Case 1.)

FIG. 2.



Pseudo-cyst in the sarcoma opening into the duodenum showing ragged internal aspect of growth. A pointer is placed in the communication between the pseudo-cyst and the duodenum. (Case 1.)

inflammatory adhesions as the result of the operation to the neighbouring parts, and had softened down in the centre into a pseudo-cyst. In other respects it was much the same as at the operation. Microscopically, it was a medium-sized spindle-celled sarcoma *As in the growth removed at the* operation there were areas where the growth was fibrifying. Examination of the walls of the pseudo-cyst showed necrotic changes and infiltration with red and white blood corpuscles.

Remarks by Dr. ROLLESTON *and* Mr TURNER —The points of interest are as follows. 1. The occurrence of encapsuled sarcomata arising from the retro-peritoneal tissue over the right kidney. Retro peritoneal sarcomata are uncommon; Gurlt found that in 14 630 tumours examined at Vienna, of which 894 were sarcomata, there was only one from the retro-peritoneal space. In an analysis of 61 recorded examples tabulated by Dutton Steele[1] it appears that the right side of the body is more often affected, but no explanation for this is forthcoming. 2 Though histologically sarcomatous, parts of both tumours presented an appearance which might be taken to suggest that a fibromyoma had become transformed into a sarcoma That this was the case in this instance we do not believe; it is more probable that the smooth muscular fibres were included in the growth and were those found in the retro-peritoneal space. Smooth muscular fibres were present in two retro-peritoneal sarcomata collected by Steele. It may, however, be pointed out that retro peritoneal leiomyofibromata have been described[2] and that uterine fibromyomata may undergo sarcomatous change[3] 3. The freely moveable condition of the tumours (in Case 1 at the necropsy and in Case 2 at the operation), their encapsulation, the general absence of infiltration, and the fact that there were no secondary growths show that in spite of their sarcomatous structure the growths were comparatively benign. 4. The formation of pseudo-cysts in the centre of both these tumours. This would appear to be fairly common in tumours derived from the retro-peritoneal space; in his 61 cases Steele found this change in 35 per cent It is probable that in our cases the cyst formation was due to inflammatory and necrotic changes set up by infection, in Case 1 from the duodenum and in Case 2 from the operation wound. 5. The great difficulties that may arise in the complete removal of growths derived from the retro-peritoneal space, even when, as in our cases, the tumours are more or less pedunculated. In Case 2 the growth was adherent to the inferior vena cava and so could not be entirely removed, while in Case 1 the duodenum would have to have been opened had removal been undertaken. In other cases of retro peritoneal sarcomata that we have seen the growth has been flattened and spread out behind the peritoneum, and operation, which was not suggested, would, if attempted, have been quite futile.

---

[1] American Journal of the Medical Sciences, March, 1900, vol. cxix., p. 311

[2] Vide Anderson: Surgery of the Subperitoneal Tissue, Brit. Med. Jour, vol. ii., 1896, p 1093, Sheild Transactions of the Royal Medical and Chirurgical Society, London, vol lxxx., p. 205

[3] Finlay: Transactions of the Pathological Society of London, vol. xxxiv., p 177, Doran, Ibid, vol xli., p. 206; and Dickinson, W. L., Ibid, vol. xlv., p. 184.

HEALTH MATTERS IN POPLAR.—The energetic medical officer of health of the borough of Poplar Mr. F. W. Alexander, has recently issued a circular to the owners and occupiers of wharves, factories, and workshops dealing with the question of rats and the plague. He asks that if any unusual mortality is detected among rats he should immediately be informed of the same. He also gives notice that arrangements have been made with Dr. E. Klein for the bacteriological *examination of the body of* any rat which it is thought desirable should be examined Mr. Alexander has also made a report to the Housing Committee of the borough which embodies various opinions and suggestions already made as to the best manner of carrying through a reform in the all-important question of the housing of the poor. Besides these opinions Mr. Alexander adds some suggestions of his own which are eminently practical. The sanitary authority has also issued some admirable hints regarding the management of infants, drawn up by their medical officer of health for gratuitous distribution. The appalling manner in which the children of the poor are fed is only too well known to every hospital physician and so far as instructions go those of Mr. Alexander are admirable, but poverty, laziness, and, we must add, the despair born of the perpetual struggle for bread and money for the rent go far to do away with the effect of any instruction.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Exhibition of Cases.

A CLINICAL meeting of this society was held on April 26th, Sir R. DOUGLAS POWELL, the President, being in the chair.

Sir HUGH BEEVOR exhibited two Healthy Left-handed Adults to illustrate the normal thoracic resonance in left-handed persons. They afforded positive proof that the lesser resonance of the right chest in right-handed persons was due to the greater muscular development on that side. He remarked that in the absence of emphasis upon this point in text-books mistakes were still often made and disease was wrongly suspected. Dr. W. H. Brazil[1] had emphatically called attention to this point in left-handed persons It might be noted in these cases that the pulmonary resonance did not rise so high above the left clavicle as above the right The diminished resonance, or higher note, could be detected below the clavicle quite distinctly in the younger man He had found no reason to suspect that either patient was the subject of disease. These observations were repetitions of others which he had made formerly upon left-handed persons —The PRESIDENT asked Sir Hugh Beevor whether he had invariably noticed that in right-handed persons the percussion resonance extended higher on the right than on the left side.—Dr. PERCY KIDD asked whether the normal defective *resonance was chiefly in the apical region or whether it was* universal.—Sir HUGH BEEVOR in reply, said that he had not found the difference on the two sides an invariable rule, but it was a common occurrence. It was his practice to carry the resonance up above the clavicle as high as possible, and it did not generally extend as high on the right as on the left whereas in these left-handed persons it extended highest on the right

Dr. F. G. STILL exhibited a case of Unusual Obesity *in a Child aged seven* and a half years, who weighed 4 stones 11½ pounds and measured only 42½ inches in height. He was very thin a year ago, when he became rapidly fatter; since that time there had been a steady increase of fat, and during the last two months he had been somewhat short of breath. Within the last three weeks the lower part of the abdomen and the upper parts of the thighs had shown irregular bluish-red lines, where the skin was thinned and shiny with dilated venules, evidently analogous to "lineæ gravidarum" A month ago he awoke one morning quite blind, but otherwise in his usual health; the blindness lasted 48 hours. Sight was normal when the child awoke on the third morning. He *complained occasionally of some pain "like pins and* needles" over the vertex of the head, but otherwise there had been no pain anywhere. At the age of three and a quarter years the child had some severe illness which began with *convulsions and was called ' peritonitis." It lasted four* months and since then the abdomen had always been rather large With the exception of an attack of measles at the age of four years the child had had no other illness. One brother had had pulmonary tuberculosis, and there was some more distant history of tuberculosis The other members of the family were all thin There was some hair over the pubes, which was said to have been present for two years; the child's voice was not gruff. The right testicle was *normal; the left* was not felt. The thyroid gland could not be felt; it was certainly not enlarged. The viscera seemed to be normal. The heart showed nothing abnormal except an occasional slight irregularity of rhythm and marked accentuation of the second sound in the aortic area.—Dr NORMAN DALTON remarked that this case, excepting in point of age, resembled one which he had seen last year. The patient was a woman aged 30 years, who in the course of a few months had developed obesity, a growth of hair on the face, a dark complexion with certain symptoms of Graves's disease—viz, thyroid enlargement and tachycardia The child in Dr Still's case had a rapid pulse. His (Dr. Dalton's) patient had rapidly entered the typhoid state and had died. He believed that the two cases resembled each other.—Sir DYCE DUCKWORTH had met with sporadic instances of obesity in gouty families. He could not explain the connexion, but it was an undoubted fact, and some French observers had recognised the association and had named the condition "arthritic obesity."—Dr. Still, in reply, remarked that in view of the pubic and facial hair he could not help thinking that the obesity was in some way connected with premature puberty and he referred to the case of a child, aged 13 years, who was enormously fat and who had begun to menstruate at the age of 10 years. The obesity of eunuchs probably had some explanation of the same kind. The sudden loss of vision in the case he had brought forward was, he suggested, possibly a neuropathic change. He had recently had a case of "lipomatosis neurotica" under his care; perhaps this case was of a neuropathic order.

---

[1] Brit. Med. Jour, Oct. 28th, 1899

Sir Dyce Duckworth exhibited a case of Myxœdema which had been under observation at intervals for 23 years. The patient began to manifest symptoms of myxœdema in 1878, and she came under his care as an out-patient at St. Bartholomew's Hospital in 1879. He recorded the particulars of her case in the Transactions of the Clinical Society of London for that year. He lost sight of her for some time, but she subsequently came under his care in 1893, weighing 14 stones 4 pounds, and she remained for three months under observation. Her weight was reduced to 10 stones 5½ pounds. Her case was one of the earliest which had been brought before the notice of the Clinical Society of London, and at that time the precise nature of the malady was not ascertained. The influence of thyroid treatment was most marked in this instance. The patient was growing steadily worse and was becoming languid, helpless, and lethargic—a burden to herself and to her family. Within a few months she regained her juvenile figure and became bright and useful once more. Her present complaint was chiefly of headache and there was no obvious relapse of the myxœdematous state. She had taken thyroid elixir (one fluid ounce, equal to one thyroid gland [sheep's]) in fluid half-ounce doses per diem for long periods, then less and less to the amount of two fluid drachms in a week for years. Her present weight was 10 stones 13 pounds. There were no supraclavicular fatty masses to be felt.—Sir Dyce Duckworth, in reply to Dr. Alexander Morison, said that the patient's pulse had always been slow. This case was one of the earliest that had been brought before the society, in 1880, when the disease in this patient had already existed some time. Every time she took the thyroid elixir the improvement had been immediate and marked. She was at one time nearly bald, but her hair had grown again, and she now looked remarkably young for her age. She had borne four children since commencing treatment, the first one being rachitic.

Dr. C. E. Beevor exhibited a case of Retro-colic Spasm occurring in a man, aged 44 years. For five years he had had occasional attacks of muscular rheumatism in the lumbar region. The present illness had begun two years before with "lumbago"—i.e., sharp pains in the back—which became later of a dull, aching character. In 1899 he had spasm of the muscles round the hip, with hardness and stiffness there, which gradually passed up to his shoulders, and by September, 1900, he had marked retention of the head and the neck. As the patient lay resting at full length there was no spasm, but on sitting up, and especially on walking, he got spasm of the muscles of the neck so that the cervical spine was extended with the concavity backwards and the chin was depressed. The extensors of the head, the complexus and trapezius, did not contract and the muscles affected were probably the deep extensors of the cervical spine. The
no-mastoids were tightened up, but apparently they were
pasmodically contracted. On walking the erector spinæ
ted spasmodically, producing lordosis and throwing
t forwards. The spasm ceased if the head was
fall forwards fully flexed, or if any support was
e head from behind, or on lying down. The
nsisted of the "Weir-Mitchell," suspension
hree times a day for 90 seconds, strychnine,
bromides, belladonna, and the constant

ON exhibited a case of Lymphadenoma
ths in the Skin. The patient was an
rs of age, who presented numerous
Pseudo-cyst in the sarcoma ope. different parts of the body, and
com he chest and elsewhere. He had
lministration of arsenic, during which time he had become worse and the lymphoid growths had developed in the skin. Since the cessation of the arsenic there had been diminution of the lymphoid growths and general improvement had taken place.—Mr. W. G. Spencer remarked that there were several features which suggested a mixed infection of tubercle and inherited syphilis in this case. The glands in the neck were, he believed, tuberculous; the nodule on the tibia and the pigmented scars were syphilitic.—Dr. A. E. T. Longhurst quite agreed with the last speaker and thought that anti-syphilitic treatment should be tried.—Sir Hugh Beevor had recently had a case under his care which had been diagnosed to be lymphadenoma, but at the necropsy it turned out to be tuberculosis.—Dr. Percy Kidd asked if the blood had been examined.—Mr. Charters Symonds suggested that a microscopical examination of the lesions might throw light on the case.—Dr. Lee Dickinson, in reply, could not regard the case as one of mixed infection. Almost every gland in the body had been affected at one time or another. Excepting the node on the tibia there were no signs of syphilis. He had examined the blood on two occasions; the red corpuscles were diminished, the white corpuscles were about twice the normal. The patient had had arsenic continuously for eight months, but had got steadily worse; during the last six months without it he had improved.—Dr. A. G. Phear recalled certain cases of syphilis now under his care. When arsenic was given to these patients infiltrations arose in the skin which went on to ulceration. On ceasing the arsenic the masses disappeared. He was afraid that microscopical examination of the case under discussion would not help them very much, for no line could be drawn between the structure of lymphadenoma and gumma of the skin; both were granulomatous material. He believed that this case was syphilitic.—The President suggested that Dr. Dickinson would perhaps report later the results of anti-syphilitic treatment.

Dr. Percy Kidd exhibited a case of Congenital Heart Disease (? Patent Ductus Arteriosus). The patient was a woman, aged 21 years. She exhibited slight cyanosis, especially of the conjunctiva, but no clubbing of the fingers. The heart was enlarged on the right and the left sides; a faint diastolic thrill could be felt in the second left space; the second sound everywhere was very loud, with the maximum intensity at the third left cartilage. At this point a short diastolic murmur following the second sound was audible at times. The first sound was everywhere feeble and generally doubled. The patient had suffered from attacks of cardiac pain from childhood and from dyspnœa for three years. There was no history of rheumatism, scarlet fever, or chorea.—Dr. W. Forbes Ross asked if it was possible to exclude aortic regurgitation from this case. An aortic regurgitation murmur could be heard as loudly on the left as on the right of the sternum, a fact which he believed Dr. Ringer was the first to point out. The facts of this case would fit in with that diagnosis.—Dr. Seymour Taylor pointed out that the characteristic pallor of aortic regurgitation was wanting in this patient, but on the other hand she presented cyanosis.—Dr. Parkes Weber asked if Dr. Kidd had considered the possibility of tricuspid stenosis.—Sir Dyce Duckworth was inclined to agree with Dr. Kidd's diagnosis. During life the diagnosis of these cases was largely a matter of guesswork.—Dr. Alexander Morison thought that the diagnosis "patent ductus arteriosus" was properly marked with a query. Pulmonary regurgitation might exist without any symptoms whatever. He would suggest as a possible diagnosis that it might be one of those rare cases of slight mitral stenosis, probably congenital.—The President remarked that this was an interesting and obscure case about which many diverse opinions might be expressed. He did not agree that the diagnosis of mitral stenosis was out of court. In point of fact, there were two important clinical evidences of stress in the pulmonary circulation—viz., marked hypertrophy of the right ventricle and a strongly accentuated second (pulmonary) sound. In his opinion the first part of the doubled first sound might be regarded as a prefix. The heavy and palpably thudding second pulmonary arterial sound was certainly prolonged. It might be that the valve had become strained. He would not, however, venture to express a more decided opinion and he hoped that Dr. Kidd would keep the case under observation and would report again about it.—Dr. Kidd, in reply, could not admit the possibility of aortic regurgitation. He, like many of those who had spoken, had thought that the disease was mitral stenosis when he first saw the patient. But on further investigation he thought patent ductus arteriosus was more probable. It was, however, only possible to hazard an opinion on these cases during life

Dr. PERCY KIDD also exhibited a case of Myxœdema in a girl, aged 14 years She presented on admission, in February, 1901, the typical appearances of that disease and the thyroid gland could only be felt with difficulty. There were firm, fatty masses in both supra clavicular fossæ The expression was stolid, but the intelligence was good. When she left school, at the age of 13 years, she had reached the fourth standard. The history suggested a congenital origin, though the appearances were not those of cretinism. The child did not walk till the age of two and a half years, and she used to pass urine and stools in bed up to the age of six years At two years old she began to get very fat She had always been sluggish and not nearly as bright as the other children. For the last 12 months she had suffered from increasing hebetude and frequent headaches Treatment with thyroid extract produced rapid improvement, and the appearance of the child was no longer characteristic of myxœdema — Dr SEYMOUR TAYLOR took exception to the term "myxœdema" being applied to this case. He thought that it was rather a mild degree of cretinism Up to the age of two years the child could not walk and passed her evacuations under her Sir William Gull's definition of myxœdema was "a cretinoid condition supervening in adult women" Moreover, he would like to ask whether the word "myxœdema" should not be done away with altogether. An excess of mucin was not really found in the tissues, as originally thought, and the word "myxœdema" had therefore no real meaning —Dr. KIDD, in reply, admitted that the child was backward The case was interesting, as showing the connexion between myxœdema and cretinism

Dr FRANCIS WARNER (introduced by Dr PERCY KIDD) exhibited a case of Hypertrophic "Pulmonary" Arthropathy occurring in a woman, aged 36 years She had had influenza 18 months ago. 12 months ago the fingers gradually began to swell, commencing with clubbing of the tips; the knees also began to swell, and the feet and ankles All the affected parts had got much worse lately. She had had pain which became worse after exertion in all these affected parts The features were not altered She had wasted generally and had lost 4 stones 4 pounds in weight She had had cough this past winter, but previously she had not been subject to any lung troubles The nails were large and curved There was considerable thickening round the phalangeal joints; the metacarpus and metatarsus were thickened and there was thickening of the lower third of the shafts of the legs and of the bones of the forearms There was some effusion into the wrists and knees, especially into the latter. There was wasting of the spinal muscles and interossei and of the small muscles of the hands. The face was not affected —Mr. RAYMOND JOHNSON asked if there were now, or if there had been at any time, physical signs in the lungs If not what was the reason that the term "pulmonary" had been applied? He suggested a possible septic source for the joint mischief, and asked if the patient had had leucorrhœa —Dr. W FORBES ROSS had elicited a history of "hysterical" fits or attacks in this patient He had had nine patients under his own care with epilepsy with the same joint mischief. Might not the joint trouble in Dr. Warner's case be of nervous origin?—Dr. C E BEEVOR pointed to the hands, which were large and sausage-like, and suggested acromegaly, but there were none of the other symptoms of that malady Had this been thought of?—Dr. WARNER, in reply, said that there were no signs, nor was there any history, of lung trouble The case, however, fitted in with Marie's description of pulmonary osteo arthropathy In 10 out of that observer's 95 cases there were no evidences, nor was there any history, of lung disease There were no evidences of nerve origin in this case, nor were there other symptoms pointing to acromegaly. Moreover, in acromegaly the enlargements affected the ends of the bones; whereas here the increase was all along the shafts Radiograms from the case were exhibited demonstrating these features in the two diseases

Mr. J. HUTCHINSON, jun, exhibited a case of Inveterate Ulcer of the Hand occurring in a man, aged 36 years. In April, 1900, he noticed a small red spot on the dorsum of the right hand, which ulcerated and spread, only healing up slightly at the original starting-point. He was under treatment for struma for four months without improvement The ulcer was then scraped at the Royal Free Hospital without result He was treated at the London Hospital by Roentgen rays and iodides internally from September, 1900, to March, 1901, with some temporary improvement He was transferred to Mr. Hutchinson's care on March 27th, 1901, and was now being treated with mercurial ointment and the ulcer was slowly healing —Mr CAMPBELL WILLIAMS could not regard this case as any form of scrofuloderma The mischief, whatever it was, had started from a small scratch, and the case, both in its history and its present features, was highly suggestive of that rare condition, dermatitis repens. He could call to mind a case resembling this one in which the process went on for nearly a year, but when properly treated it got quite well.—Mr HUTCHINSON, jun, in reply, was inclined to regard this case as one of strumous ulceration occurring in skin which was badly nourished The process was allied to Bazin's disease and, like that malady, it was healing with remarkable rapidity by the simple means of keeping the part warm

Mr. CHARTERS SYMONDS exhibited a case of Dislocation of the Patella occurring in a young man. The condition was probably congenital, though the history was somewhat indefinite.

Mr. CHARTERS SYMONDS also exhibited a case of Hæmorrhagic Gummatous Myositis occurring in a man, aged 45 years. There was a hard, irregular, infiltrating mass in the extensors of the right thigh, over which the skin presented an infiltrating eruption. — Mr. CAMPBELL WILLIAMS asked if this case might not be true sarcoma of the muscle It came on so very quickly after injury.—Mr. CHARTERS SYMONDS replied that when the patient came under treatment a year ago (one year after the injury) the swelling was larger than it was now, and he thought that this was rather against the diagnosis of sarcoma

Mr. CHARTERS SYMONDS also exhibited a girl whose Knee-joint had been Erased eight years before The case was exhibited to show the condition of the knee joint The movement was free to a right angle, but there was a good deal of weakness The question raised by the case was whether the patient was as well off as she would have been after excision He (Mr Charters Symonds) suggested that a stiff leg would probably be more useful than was the present condition —Mr W G SPENCER referred to a similar case shown by Mr Ede in which movement of the joint was obtained —Mr RAYMOND JOHNSON asked what steps Mr Charters Symonds took to obtain fixity He (Mr. Johnson) was not sure if this patient was a gainer by having a moveable joint —Mr CHARTER SYMONDS said that he had exhibited the case because he thought it was instructive as to the result At the operation everything was taken away excepting a portion of the cartilage covering the ends of the bones He remembered Mr. Ede's case; it was shown as the most desirable result that could be obtained and the amount of movement which was possible was not quite up to a right angle He thought, on the whole, that they had better fix these joints

BRITISH GYNÆCOLOGICAL SOCIETY.

Retroversion of the Uterus.

A MEETING of this society was held on April 25th, Dr. J. A. MANSELL MOULLIN, the President, being in the chair.

Dr. H MACNAUGHTON JONES introduced the discussion on Retroversion of the Uterus and backward displacements generally by a review of the anatomico physiological points bearing on their etiology He accepted Schultze's definition of retroversion, drawing the distinction between retropositions and deviations and retroversion or retroflexion, briefly touching on such causes as atonicity in the abdominal parietes, over-distension of the bladder, rectal complications and neglect of constipation, perimetritis with exudations or adhesions, pregnancy or the puerperium, subinvolution, tumours of the uterus, in the broad ligaments, or bladder. He noticed the causal relationships between ovarian growths and retroversion In the uterus itself metritis, tumours, and congenital conditions were referred to and the mode of action of these various causes in altering the normal axis of the uterus was touched on, as well as the supports of the uterus in altering its axis directly or indirectly. The relation of perineal and vaginal abnormalities was considered and the clinical division of backward displacements into those in which the uterus was reducible and moveable, with or without complications, and those in which the uterus was adherent and irreducible, with or without adnexal complications, was accepted for its practical value in determining the treatment. The importance of the dorsal position and the combined methods of examination, as well as the knee-elbow, in diagnosis, as also the advantages of Schultze's directions for diagnosis and manipulation, were noticed. Having touched on the various symptoms arising from retroflexion he said that from every point of view he refused to count a woman as healthy who had a retroverted uterus, this not only from its physical causes, but from its psychical effects. Reviewing the prophylactic treatment, the importance of attention to the bladder under ordinary conditions, when wearing a support and after labour, attention to the rectum, and the position of the uterus during the puerperium, as well as the need for following up the convalescence after pelvic inflammations generally by securing complete resolution of all effusions and the normal position of the uterus, were dwelt on, as also the means to be taken to absorb plastic exudations and correct peritoneal contractions. Attention to such clinical points would render retroversion a matter of much less frequent occurrence than it was at present, the wider recognition of the causes leading to its earlier rectification effecting more rapid and permanent cure. Dr Macnaughton-Jones placed three propositions before the meeting: 1. Every mobile and reducible uterus should always be treated in the first instance by a support, worn for a space of time proportionate to the tendency there was on the part of the uterus to revert to the backward position. Associated adnexal conditions were frequently amenable to treatment in such cases, and it should precede and follow the reposition of the uterus. 2. Should the adnexal condition be such in this class of case as to demand operation, colpotomy was that of selection, with resection of the adnexa and the subsequent use of a support. 3. An immoveable or irreducible uterus, or a reducible uterus in which the associated conditions in the uterus itself, in contracted peritoneal folds, or adnexal adhesions, made it clear that no pessary would effect a cure or enable the uterus even temporarily to remain in the normal position, should be treated by operation, the nature of which would depend on the age and child-bearing prospects of the woman, the amount of adnexal disease, the condition of the vaginal outlet and perineum, such complications as cystocele or rectocele, and the coexistence of uterine disease with the displacement Dr. Macnaughton-Jones entered into an analysis of the cases in which a pessary, with collateral treatment, should be the plan of treatment adopted and also of those in which operative measures were absolutely necessary. The views of Delajaniérè, Goldspohn, Kohn, Veit, Rissman, and Flaischlen were specially referred to, and the various operative procedures following on Alexander's method or modifications of it, as those of Kustner, Edenbohls, and others, formed the first class of operative interferences. In the second were the extra-peritoneal or intra-peritoneal fixation of the uterus itself to the vagina, as in the operations of Müller, Duhrssen, and A. Martin; and in the third class of fixation of the uterus by the direct mesial methods, as in the operations of Leopold, Czerny, Pozzi, and others, the lateral of Olshausen and Sänger, or the suspension method of Howard Kelly (fixation to the peritoneum and sub-peritoneal fascia). The operation he himself performed was either ventro-fixation or suspension, and where he considered it necessary to operate he thought cœliotomy afforded the best and safest means of correcting the majority of adnexal complications with no greater danger to pregnancy than by other methods. Given a simple case of mobile and reducible uterus it now appeared from the mass of evidence before the profession that the Alexander-Adams operation was the classical method of dealing with such a condition.

Dr. W. ALEXANDER enumerated many clinical consequences which he had proved again and again to be the result of backward displacement. When the displacement was acute and recent the symptoms were prominent. As the disease became chronic the symptoms disappeared and this fact gave rise to the statement that the displacement had no symptoms. What would be said of a surgeon who, finding an old mobile dislocation of the shoulder, said that a recent dislocation produced no symptoms; yet the cases were parallel. Displacements resulted from sudden strain or wrench or over exertion at the menstrual period, and occurred in connexion with miscarriage, abortion, and confinement. By palliative treatment the symptoms might be entirely relieved. It was only a question of time, care, and skill, but often these were unavailable, and operative treatment was generally necessary. Referring to his own operation, shortening of the round ligaments, if the uterus sloped back ever so little it would prove a failure and he thought that this was the source of failure in a good many cases. Where adhesions were present he opened Douglas's pouch, passed in his finger and broke them down, until the uterus could be easily pushed forward into anteversion. He then shortened the round ligaments, having packed the vagina with gauze. If any lesion were found in the pelvis he removed it by the vaginal opening at the same sitting.

Professor J. W. TAYLOR said that backward displacement was a dislocation which, when recently acquired, often occasioned great suffering, especially if associated with metritis and menorrhagia, but which when chronic and not accompanied by enlargement of the uterus might not give rise to symptoms. It was therefore the recent or the intractable cases, in which the uterus was enlarged, which mainly required treatment, and this to be successful should deal with the enlargement as well as the displacement. Treatment by pessary was rarely curative, though valuable in relieving urgent symptoms and in enabling the surgeon to estimate how far symptoms were due to the displacement. He had considerable operative experience of vagino-fixation, though in most cases it had been simply incidental to anterior vaginal cœliotomy, and also of ventro-fixation, though it had generally been accessory to other operations involving abdominal section. In vagino-fixation, if the union were sero-serous only, it sometimes gave way. He had had two such cases. If the union were firmer there was undoubted danger in subsequent pregnancy. Illustrative cases were quoted. The older operation of ventro fixation rarely gave the patient a feeling of perfect relief and security. He had performed Kelly's operation as accessory to other abdominal operations and had been very pleased with the results. Doyen's operation he found to be insufficient. Doyen himself now combined it with shortening of the round ligaments. Shortening of the round ligaments, or Alexander's operation, he believed to be far and away the best for uncomplicated cases of backward displacement. When, as in most cases requiring operation, chronic endometritis was present he began the round ligament operation by vaginal disinfection and curetting.

Dr. C. ROUTH believed that there were many cases of retroflexion which would yield to treatment with a stem pessary if associated with other measures, which would prove intractable, whatever mode of treatment were adopted, if a stem pessary were not employed. Hæmorrhage, which was usually considered an objection to the use of the stem, he regarded as beneficial, inasmuch as it relieved uterine congestion.

Mr. F. BOWREMAN JESSETT said that where there was no doubt as to the diagnosis or as to whether the fundus was fixed by adhesions he had the patient anæsthetised. Under an anæsthetic it was often found that a uterus which had previously appeared to be absolutely fixed could be readily replaced in the normal position. A large number of patients could be relieved and cured by the introduction of a pessary. He employed a Hodge with a large glycerine pad for two or three months when he replaced it by an ordinary Hodge or Smith-Hodge. Stem pessaries were sometimes of much service if introduced for a week, the patient being kept in the recumbent posture. If an operation was necessary he preferred ventro-fixation.

Dr. GEORGE ELDER agreed with Dr. Alexander that the chief causes of retroversion and retroflexion were excessive exercise at the menstrual periods and badly attended miscarriages and confinements. He now and then used a stem in combination with a pessary and believed that it assisted drainage and relieved congestion. With regard to treatment in unmarried girls, a properly fitting Hodge, supplemented by general treatment, was sufficient in most cases. If a uterus was found to be enlarged and retroverted or retroflexed directly after labour or miscarriage steps should be taken to bring about involution. After the acute stage had passed care should be taken that any metritis present was treated and the perineum, if ruptured, should be repaired before applying the pessary. The difficulty he experienced in finding the round ligament had led him to abandon Alexander's operation and he now performed abdominal ventro-fixation.

Professor JAPP SINCLAIR did not think that it was a justifiable proceeding to leave the uterine stem in longer than a fraction of a week. In his opinion Alexander's operation, which he had performed 40 or 50 times, was only suitable to cases in which no complications existed—that was to say, cases which could be cured without operation. If from the condition of the uterus the retroflexion had obviously existed for some time, and the case could not be cured without operation, the only safe procedure was ventrofixation. Essential points were, if a subsequent pregnancy were probable, that the fundus uteri be not involved in the stitches and that the physiological play of the round ligaments be preserved.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on April 19th, Dr. Gordon Black, the President, being in the chair.—Dr. Gordon Sharp read a paper on *Food and Disease* in which he asked the members of the profession not only to take a greater interest in this important question but also to study the subject in a more comprehensive fashion and in the light of common sense so that the medical profession might be, as it ought to be, the only dictator in all matters relating to food and disease. In the treatment of Bright's disease and diabetes mellitus he advocated not so much an abstinence from proteids and carbohydrates respectively as a dietary that would maintain the balance of health. Science did not teach that they were to give no proteid in Bright's disease or no carbohydrates in diabetes She only taught that the equilibrium would be more easily upset by proteids in Bright's disease and by carbohydrates in diabetes than by other food. In the treatment of dyspepsia Dr. Sharp pointed out the danger of loading the alimentary tract with brown bread, farinaceous food, and cocoa, and he advocated the judicious employment of meat and said that cocoa was not a good food in dyspepsia because it was flavourless and insipid, while tea when rightly prepared had a delicate aroma and answered well. He spoke of the danger attending the use of dried proteids and tinned foods on account of the lack of natural flavour and zest. In the feeding of infants he was inclined to employ unboiled milk and risk tuberculosis rather than to run the more frequent risk of malnutrition due to the use of boiled milk. He believed that the loss of citric acid in boiled or pasteurised milk was not, as had been asserted, the cause of malnutrition and infantile scurvy, the disproof being that scurvy could be cured or prevented by eating potatoes or other fresh vegetable which contained no citric acid or allied body Boiling or pasteurising altered not only the composition but also the constitution of the milk, and if it had to be put in one sentence he would say that the malnutrition depended on a loss of freshness in the milk. However, the most important factors were loss of flavour, loss of salts in general, and loss of gaseous bodies —The President, Dr. T. Churton, and Dr. R. H. Crowley discussed the subject and Dr. Sharp replied.—Dr. A. Bronner (Bradford) read a paper on Headaches of Nasal Origin. He regretted the fact that nasal surgery had been under a cloud for the last few years Some physicians even went so far as to declare that asthma *could never* be caused by nasal disease. This was going rather too far. There was nothing very characteristic or typical about headaches of nasal origin. Nasal obstruction or hypertrophic rhinitis generally gave rise to dull, aching pain with all the symptoms of so-called "aprosexia" Disease of the nasal accessory cavities generally gave rise to local neuralgic pain, often intermittent and worse in the morning. Empyema of the maxillary antrum often caused severe frontal pain, so that in many cases disease of the frontal sinus was wrongly diagnosed Diseases of the sphenoidal sinus was generally accompanied by severe pains behind the eyes and incapacity for any mental or physical exertion. Empyema of the ethmoidal cells was the commonest cause of recurrent nasal polypi The pains in the head varied according to the position of the cells affected. Dr. Bronner briefly recorded the history of several typical cases. Diseases of the nose and accessory cavities were extremely common in Yorkshire and were generally not diagnosed or treated. In all cases of headache the cause of which could not be discovered and in which any nasal symptoms were present (nasal obstruction, discharge, sneezing, &c) the nose should be carefully examined and, if necessary treated. If this were done they should not so frequently hear of the so-called incurable or "nervous headaches."—The President, Dr. T. W. Griffith, Dr Churton, Mr. T. Pridgin Teale, Dr. James Kerr, and Mr. G. Constable Hayes took part in the discussion and Dr. Bronner replied —The following cases and specimens were shown: Mr. Secker Walker: (1) A case of Mastoid Suppuration accompanied by Lateral Sinus Thrombosis, Necrosis of the Cochlea and Post-pharyngeal Abscess; (2) two cases of Chronic Otorrhœa cured by the Mastoid Operation; and (3) a case of Opaque Optic Nerve-Fibres.—Mr. Walter Thompson: A Fibroid of the Broad Ligament.—Dr. E F. Trevelyan: A Dura Mater Showing the Formation of a False Membrane.—Mr. B G. A Moynihan: (1) A case of Tuberculous Ulceration of the Tongue; (2) a case of Choledocho-Duodenostomy; (3) a Stomach showing two Perforating Ulcers, one on the anterior and one on the posterior surface; and (4) a Calculus formed round a Foreign Body in the Prostate Gland —Mr H J Roper: Fœtus and Secundines which were retained in the uterus for 12 months.—Mr. Edward Ward: (1) *Recurrent Sarcoma of the Lower Jaws; extensive excision* (patient and specimen); and (2) an Enlarged Thyroid.—Dr. J. B. Hellier: (1) A Uterus removed by Abdominal Hysterectomy for unusual condition; (2) Fœtus which was delivered by Decapitation; and (3) (for Mr. W. H. Drury of Otley) a Five Months' Fœtus in membranes showing the relations of the chorion, amnion, and placenta —Mr. Lawford Knaggs: A Calcified Fibroid Tumour of the Uterus —Dr. C. M. Chadwick · A Perforated Gastric Ulcer.—Mr. W. H. Brown: A Perforated Gastric Ulcer in an Hour-glass Stomach.—Dr W H. M. Telling: (1) An Aneurysm of the Apex of the Heart, and (2) Rupture of a Blood Cyst of the Left Ventricle.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY—A meeting of this society was held at 20, Hanover square, W, on April 17th, Dr. Frederic Bagshawe (St. Leonards), the President, being in the chair.—Dr. Symes Thompson read a paper on the Climate of Algiers. He showed that Algiers was now easily reached from London in two days and that it was warmer and more sunny than was the Riviera The combined influence of the ocean and the deserts gave to the climate a value which deserved fuller recognition. Whilst Algeria itself was humid and sometimes relaxing, the hills around were exhilarating and at Hammam R'irha, 60 miles to the west and 2000 feet above sea-level, a valuable spa was available in winter when European spas were closed. At Biskra, 200 miles inland, a desert station was reached by railway having a spring as valuable as that of Aix-la-Chapelle, especially in chronic syphilitic cases, whilst at Hammam Meskoutine the boiling spring issued forth in the middle of beautiful country and supplied a haven of rest from the bustle and turmoil of towns.—The President alluded to the account given by Dr. Henry Bennet of his experience of Algiers some 40 years ago, when he described the exposure of the place to cold northerly winds in contrast to the protection of the Riviera from similar winds The further development of the town had no doubt enabled them to select more favoured positions for their modern buildings. Dr. Thompson's account of Biskra and other spas available for sulphur bath treatment during the winter months were instructive and would prove valuable.—Dr. Fortescue Fox commented upon the paucity of stations suitable for spa treatment during the winter months. The mineral waters of North Africa were chiefly of value for winter treatment.—Dr. Douglas Kerr (Bath) said that having visited Algiers personally in 1879 he was much struck with the great advance in comfort and suitability for invalid visitors He also recognised the advantage for syphilitic patients taking mercurial treatment in winter and also the greater privacy.—Dr. Parkes Weber asked for further information as to shelter from winds at Biskra —Dr Thompson, in his reply, admitted that Biskra was 500 miles further north and that it was colder and probably somewhat more windy than Helouan —Mr A G S Mahomed read a paper entitled "Polypharmacy in Nature and Art." He first endeavoured to defend the principle of polypharmacy in art To do this he had prepared tables giving the hypothetical therapeutic equivalents of a group of drugs He showed by examples from this the possible advantages of combining them with a view to resultants in a given direction. Observing that this was the only justifiable polypharmacy he defined what was unjustifiable Turning to nature he pointed out that in most mineral waters there were six or seven elements; of these potash and soda were partly antagonistic; lime and magnesia appeared almost wholly so. In vegetable drugs opium, bark, ergot, calabar bean, and digitalis contained opposing elements. He deprecated the exclusive use of alkaloids, preferring in many cases to use an extract of bark to quinine or a liquid form of opium to morphine.—Dr. Thompson, who supported Mr. Mahomed in maintaining the greater value of the crude drug over its separated alkaloids, said that every effort made to distinguish with precision the value of each constituent of a prescription deserved encouragement.—The President thought that Mr. Mahomed's attempt to estimate the value of various drugs by an arithmetical method might not be concurred in by other prescribers. Every man formed his own relative estimate of the exact value of a drug and would use drugs in accordance with that estimate. Mr. Mahomed's attempt would make men more thoughtful in the employment of remedies.—Dr. E. G. Gilbert (Tunbridge Wells) suggested that Mr. Mahomed's paper and interesting little tables would have been still more interesting if he had stated how he arrived at the exact, or even approximate, percentage of effect produced in one direction and another by each of the drugs mentioned, particularly with regard to the diaphoretics and diuretics. He (Dr. Gilbert) had watched scores of times for their effects upon the skin and kidneys and had nevertheless failed to perceive that they had any decisive action. Mr. Mahomed's estimate that potassium acetate was more diaphoretic and less diuretic than ammonium acetate was not in accordance with what was generally supposed to be the difference in the action of potassium and ammonium salts.—Mr. Mahomed, in his reply, thanked the members for their patient hearing of a paper which was chiefly theoretical. He was not surprised that members would like facts and a basis for his estimation of drugs. So would he. What could even the most distinguished authors provide in this direction? Scarcely anything. Physiological experiments were very little guide. Replying to Dr. Gilbert he said that he ranked acetate of potassium high as a diaphoretic from results of practice. He found that if a good dose of it were exhibited in about three days most patients noticed considerable perspirations. Few drugs would do that except pilocarpin and salicylate of soda which required the patient to be kept in bed.

Chelsea Clinical Society.—A meeting of this society was held on April 16th, Dr. William Ewart, the President, being in the chair.—Mr. J. Foster Palmer read a paper on Cystic Disease of the Chorion. After describing the views formerly held as to the pathology of this condition and pointing out their erroneous nature Mr. Palmer gave a brief sketch of the views now held on the subject, mentioning especially the names of Gierse and Meckel, who inclined to the theory that the death of the fœtus was the cause of this degeneration, while Paget and Mettenheimer maintained that the degeneration was the cause of the death of the fœtus. Attention was also drawn to the morbid proliferating power of the cysts. Mr. Palmer then described two cases which had been under his care in 1875 and 1876 respectively. The second of these cases was of interest on account of the fact that the phenomenon had occurred a second time, after 12 months' interval, with a doubtful history of abortion between. Bearing in mind the very doubtful nature of this so-called abortion Mr. Palmer was inclined to the opinion that the second mole pregnancy might possibly have been a continuation of the first owing to a few of the cystic villi having been left behind and having thus become proliferated, in which case a nice medico-legal question might arise as to whether hydatid moles were necessarily a proof of conception having taken place even within 12 months or more.—A discussion followed, in which the President and Dr. Vincent Dickinson took part.—Dr. Barry Blacker read a paper on Light Treatment. After alluding to the fact that in very early times light rays were employed mainly in conjunction with heat, the agent being the rays from the sun, and that electricity had been found to be more easily relied upon in this country and perhaps had had a decidedly increased effect due to the fact that it contained certain rays which were not found in sunlight when it reached the earth, Dr. Blacker gave a description of light treatment abroad and emphasis was placed upon the difference to be observed between the action of light and heat rays, both of which had been proved, in his opinion, to be useful in treatment, either separately or in combination, but both if used indiscriminately produced harmful results. There were four methods of employing electricity in light treatment: (1) diffuse light; (2) heat and light combined; (3) intense light; and (4) concentrated light, the last-named method being associated with the name of Professor Finsen. A description was then given of the manner in which these different methods might be employed. In the diffuse light exposures the patient should be without clothes and the temperature should not rise above 98° F., and to commence with the duration of the exposure should not exceed 10 minutes, as it might produce great distress, and the maximum should be 30 minutes. The effects observed were slight increase in the pulse-rate, a rise of two or three degrees in the body temperature, irritability and excitement, which, however, soon passed off if the exposure were not too prolonged, followed by drowsiness, lassitude, and prostration, with fulness in the head. The respirations became fuller and deeper. When the exposure was too long and sudden sleeplessness might result, but when it was carefully regulated drowsiness and a refreshing sleep were produced, making it of value in insomnia. Heat and light in combination might be arranged in any desirable degree of intensity, rheumatic affections being without exception benefited by the addition of heat rays, and in cases of neuritis patients had only to try the addition of the proper proportion of light to appreciate the difference it made after having tried heat alone. The action of light was not passing, but it persisted for a long time after the exposures had been finished, and the effect in cases of overwork where a more complete change of environment could not be made was very marked. Of the various causes which received benefit from the action of light to the whole surface of the body none were more marked than those of exophthalmic goitre. Intense light was produced by the rays from an arc lamp of from 25 to 30 ampères and from 50 to 60 volts, the temperature required being regulated by the distance from the lamp; thus at a distance of 50 inches it was about 260° F., and at four yards about 75° F. This was the most satisfactory treatment for old rheumatic joints and all articular effusions. Emphasis was placed upon the great benefit derived by this particular form of light treatment in the relief of pain and neuralgic conditions generally. As regards treatment by concentrated light a description and demonstration of Professor Finsen's apparatus were given, also the method of the employment in the treatment of skin diseases, followed by an exhibition of cases so treated, with lantern slides.—A discussion followed.

Clinical Society of Manchester.—A meeting of this society was held on April 16th, Mr. F. A. Southam, the President, being in the chair.—Dr. E. S. Yonge showed two cases in which he had recently performed Asch's Operation for Deflected Nasal Septum with good effects. Operations for deflected septum were frequently disappointing, and the favourable results of Asch's method were mainly attributable to the fact that the resiliency of the septum was destroyed before that structure was straightened.—Mr. E. Stanmore Bishop showed a case of Fibromyoma occurring in a Semi-cornuate Uterus (removed by Baer's operation). The patient was also shown.—In conjunction with Dr. R. A. Paton, Mr. Bishop also showed a large Fibrocystic Uterus, weighing 19 pounds, which was removed by total abdominal hysterectomy on March 20th with a successful result.—Dr. J. W. Stenhouse brought before the meeting several cases of Toxæmia. The first case was that of a primipara, aged 22 years, in which the main symptoms were mental. Towards the end of her pregnancy she began to exhibit mental symptoms, but two days after her confinement, which was perfectly normal, she became melancholic. With the accession of milk the melancholy deepened, and on the fifth day it gradually changed to mania and she died delirious on the eighth day. The pulse and temperature were normal till she became maniacal. Treatment had no effect. The second case was that of a married woman, aged 23 years, who passed through her first pregnancy without incident. In the sixth month of her second pregnancy she noticed that the skin on her chest and breasts became spotted with a reddish-brown discolouration. She aborted at the seventh month and the pigmentation disappeared. Three months after she became pregnant again and the discolouration reappeared and extended downwards like an inverted cone on to her abdomen. She felt ill and weak and had a brownish discharge. She aborted about the third month. The pigmentation became fainter, but at every menstrual period it became much darker. It finally disappeared under the influence of arsenic. The third case was one in which the patient had convulsions at her first confinement. She had had two pregnancies since and each time albumin had appeared in the urine in the seventh month. Under treatment the pregnancies had terminated without incident. The fourth case was brought before the society last year. The specific gravity of the urine had remained persistently low, though the albumin had disappeared. The fifth case occurred in a primipara, aged 30 years. When first seen she was about eight months pregnant. The legs were œdematous, the face and hands were puffed, and she complained of headache, of pains and pricking, and of numbness in the extremities. The liver was slightly enlarged and very tender on pressure. The heart was normal. The specific gravity of the urine was 1008 and semi-solid with albumin. She was ordered to bed, put on a milk diet, and given calomel and salts. The urine was very slow in showing any change. In a fortnight the albumin was slightly less and the specific gravity was 1004. In the fortnight preceding the confinement it rapidly altered; the albumin got less and the specific gravity rose to from 1014 to 1018. The pregnancy terminated without incident and was instrumental. Four months after there was still some tenderness of the liver as well as a trace of albumin in the urine, and the specific gravity was 1016.—Dr. W. E. Fothergill opened the discussion, in which Dr. E. Vipont Brown, Dr. W. Graham, and Dr. A. Fraser took part.

Reviews and Notices of Books.

Diseases of the Heart: a Clinical Text-book for the Use of Students and Practitioners of Medicine. By EDMUND HENRY COLBECK, B.A., M.D. Cantab., &c. London: Methuen and Co. 1901. Pp. 350. Price 12s.

THE author of this work set himself the task of producing "a book dealing with the clinical side of the subject of heart disease in a form suitable to the requirements of the student and newly qualified practitioner of medicine." He has consequently entered very fully into the elementary anatomy, physiology, and methods of diagnosis of diseases of the heart before dealing in detail with the various affections themselves and their treatment. It seems part of the nature of a "text-book" that such matters should be considered *ab infero et imo*, and there is much scope for the exercise of judgment in executing such a task. The continual advance in the knowledge of anatomical and physiological details, as well as in other departments of such a study as that with which this book is concerned, renders it desirable that a well-sifted compendium of such knowledge should from time to time be made accessible. Such a work is particularly useful to the busy practitioner of medicine who has little time for, and not much opportunity of, keeping himself *au courant* with the researches of those who have more leisure for original investigation. In, view, also, of the amount and multifarious nature of the material which the student of to-day has to compress into his medical curriculum, such a digest is calculated to prove of service. It may be questioned, however, whether the student would not be better occupied in making his own, by reference to larger sources of information, much of the preliminary matter set forth in such special text-books as the present.

On such points opinions may legitimately differ. The author believes that such a work is calculated to be of service to both classes for which he writes, and we are glad to be able to state that in our opinion he has exercised all the judgment, care, and method necessary in the execution of his task to fulfil his purpose He has avoided much "controversial matter" to gain "greater precision" in the exposition of the subject. In this he has no doubt been wise, for much of such matter is both crude and ephemeral. His description, however, of the sympathetic endowment of the heart appears to us to be scarcely consonant with present views on the subject. We are under the impression that the sympathetic outflow to the heart, at any rate in the higher mammals, has been fairly well established to be from the lower, not from the middle and upper, cervical ganglia. The diagrams given of the cardiac cycle are more elaborate than their prototype first employed by Sir William Gairdner, and the elaboration does not appear to us to be advantageous. On the other hand, the author's diagrammatic explanation of the arterial transformations in the fœtus, which appropriately precedes his consideration of congenital affections of the heart, is one of the simplest and best with which we are acquainted. These affections are somewhat fully treated by the author and we have nothing but praise both for the matter and the manner of his handling of the subject. The admitted difficulty in the precise diagnosis of some of these lesions constitutes it one of the still uncultivated fields of physical diagnostic exploration, and its fuller treatment in this book than in some larger treatises is calculated to stimulate the ingenuity both of students and practitioners. The author likewise gives more than a passing notice to lesions of the pulmonary valves, once designated the "region of romance," and in doing so chronicles an important advance in the knowledge of affections of the heart, for the physics of the dextral circulation differ considerably from those of the sinistral heart. Diseases of the left side of the heart are treated with the fulness and care which their frequency and importance demand, and the elements of their diagnosis and prognosis are considered with both judgment and perspicacity.

Special sections are devoted to the estimation of reflux and impeded afflux in regurgitant and obstructive lesions, an emphasising of these points which is of theoretic interest and practical importance. The author mentions a fact which is frequently ignored—namely, that although the character of the bruit may have no fixed relation to the amount of lesion, it is important as an index to ventricular force. When, however, he states, in discussing mitral incompetence (p. 179) that the total obscuration of the first sound by bruit and its conduction in the recognised direction may be taken to indicate that the "amount of regurgitation is very considerable," we do not think sufficient weight is given to the fact that the *loudness* of the bruit may obscure the first sound at its site of maximum intensity, without its being necessarily an index to the amount of regurgitation. A chapter is specially devoted to the consideration of angina pectoris, a subject which has exercised a fascination for many writers on cardiac pathology and therapeutics, and the reader will find here a short yet good *résumé* of present knowledge on this important affection, the essential nature of which is still somewhat mysterious. The book closes with observations on the Nature and Treatment of Functional Disorders of the Heart. Bearing in mind the avowed object which the author had in collecting and weighing his material we can congratulate him on having effected his purpose in a manner which should prove satisfactory and helpful to the majority of his readers. Modest as is the aim of the book, we consider that Dr. Colbeck has produced a work of more intrinsic value than some more pretentious volumes.

Die Lepra. By Dr VICTOR BABES. Vol. XXIV. of Professor Nothnagel's Special Pathology and Therapeutics. Vienna: Alfred Hölder. 1901. Pp. 350. Illustrated. Price 10 marks 60 pfennigs.

THE volume under review constitutes one of the latest additions to Professor Nothnagel's System of Special Pathology and Therapeutics, and probably there is no authority in Europe better entitled to undertake this particular section than Dr. Victor Babes, whose name is a familiar one in the literature of the subject. In Roumania, where his researches have for the most part been conducted, leprosy is by no means uncommon, so that he has had the advantage of clinical experience as well as having had ample pathological material from which to draw his conclusions.

Dr. Babes has freely availed himself of the great mass of evidence collected from all parts of the world and published in the somewhat chaotic reports of the Berlin Conference of 1897. The knowledge thus acquired he has summarised in a most masterly manner and combined with the results of his own experience. He has completed a work on leprosy which may be regarded as the standard work on the subject. The history of the disease and its geographical distribution are dealt with in the first and second chapters. Then follow those on the etiology, pathology, symptomatology, diagnosis, and treatment. The pathology of the disease may be said to date from the discovery of the bacillus by Neisser in 1897, for to this investigator and not to Hansen the author gives the credit of the discovery. Hansen, working under the disadvantage of unstained preparations, was too indefinite in his despriptions to rank as the real discoverer. Considerable space is devoted to the methods by which the disease may be propagated and the question of hereditary transmission. The long incubation period necessary for the full parasitic development of the bacillus is a serious obstacle to experimental inoculation and renders it difficult to learn definitely by what path or paths the bacillus enters the human system. The author believes that though hereditary transmission may occasionally take place, as a general rule it plays but a small part in the spread of the disease. That leprosy partakes of the nature of a family disease, in the sense that all the members of a family may be infected, the author regards as admitting of no doubt; but since it frequently happens that the offspring show symptoms before the parents it is difficult to prove that in any particular case the children have acquired from the parents either a predisposition to the disease or the disease in an hereditary form. As regards treatment, Dr. Babes has faith in the eventual discovery of a specific serum; in the meanwhile, he claims advantage for his anti-tuberculous and anti-diphtheritic methods. He believes that we shall overcome the difficulties of understanding the true nature of the disease by studying the bacillus in its exogenous or saprophytic form rather than by confining our attention to it as a parasite in the human body. He suggests that it may possess a very complicated cycle of development, possibly in plants, manure, and fishes. The life-history of the bacilli of tubercle, diphtheria, and leprosy presents analogies and similarities which Dr. Babes evidently regards as of extreme interest and importance. It is to be hoped that this admirable work will be translated into English for the benefit specially of those of our colonial brethren who cannot read with facility the technical writings of a German *savant*.

Hygiene and Public Health. By LOUIS C. PARKES, M.D., D.P.H. Lond., and HENRY R. KENWOOD, M.B. Edin., D.P.H., F.C.S. London: H. K. Lewis. 1901. Price 12*s*.

THIS work, which consists of 732 pages, is practically an expansion of "Hygiene and Public Health," by Dr. Louis Parkes, which was published in 1889 and which has since run through five editions. Dr. Kenwood has now joined Dr. Parkes in authorship and the result is a considerable expansion both in the size and scope of the original volume. In a book of this nature the reader naturally turns to the subjects upon which the advance of science has recently thrown most light or concerning which the legislature has added to the statutes—such, for instance, as the purification of sewage, the natural history of infectious disease, and disinfection. In all these particulars the book before us has been brought well up to date, and the present position of our knowledge is set forth in a very readable fashion. The character of the several chapters varies somewhat—that upon water being excellent, while that upon meteorology is, in our view, a little too much expanded for the general character of the book. In other cases there might have been more concentration, but as a matter of fact the student, for whom of course the book is largely intended, does not like his information too much boiled down. The last chapter deals with sanitary law and administration, and although the space given to this subject is small the matter is well arranged. We notice, however, that under the heading of "Rivers Pollution" the administration of the Rivers Pollution Act is somewhat insufficiently set forth. The sanction of the Local Government Board is, we think, only necessary under Part III. of the Act, and not under the whole Act, as is implied. Some mention, too, should have been made of the powers of county councils under this heading. The book will not only serve the student's purpose but it will form a useful focus of our present knowledge for the medical officer of health. A wholesome scientific spirit pervades the work.

Uterine Tumours, their Pathology and Treatment. By W. ROGER WILLIAMS, F.R.C.S. Eng. With 58 Illustrations. Demy 8vo. London: Baillière, Tindall, and Cox. 1901. Pp. xvi.-360. Price 10*s*. 6*d*. net.

IN his preface to this book Mr. Roger Williams quotes Buckle as saying, with reference to medical literature: "We are in the predicament that our facts have outstripped our knowledge, and are now encumbering our march." That this is so is without question. In an endeavour to restore some order to the chaotic mass of facts known to us with regard to uterine tumours the author has written this monograph. The close attention that Mr. Roger Williams has given to this subject renders him well fitted to attempt such a task. The greater part of the book is, of course, taken up with myomata and carcinomata of the uterus. Amongst some of the most interesting chapters and sections are those upon the Pathogenesis of Myomata, their Biology, the Question of the Origin of Malignant from Myomatous Tumours, and the Radical Treatment of Myomata.

With regard to the origin of these tumours the conclusion is come to that it is connected with abnormal development of the musculature, detached fragments of which—grouped round heterotopic epithelial "rests"—are the germs whence they arise.

The author clearly shows that far from myomata having any special proclivity to become cancerous they are very much less liable to originate this disease than are the glandular elements of the uterus itself, while from the data collected it is evident that such tumours seldom become sarcomatous. These conclusions are of great value in view of the statement that is so often made that uterine myomata tend to become malignant. In reference to their etiology the great importance to be laid upon the suppression of maternity and diminution of the natural fertility is clearly shown. Grave exception has been taken to Mr. Roger Williams's statement that "if the practice of some surgeons—in removing myomata whenever recognisable—were generally followed nearly 1,000,000 operations of this kind might be done in a single year, and as the average mortality from such operations may be estimated at about 10 per cent. this means that about 100,000 lives would be sacrificed in a single year." That the mortality of such operations would probably be much less than 10 per cent. and that such a statement is an exaggerated one is no doubt true, yet it well tends to show how great a responsibility lies with those who lightly recommend operation for a condition the normal mortality from which may be regarded as about 1 in 2000 cases. We should be better able to come to a decision upon this most important matter if those surgeons who operate upon large numbers of fibromyomata would state clearly and definitely in every case what were the indications for operation.

The second part of the book is concerned with Malignant Tumours of the Uterus. Mr. Roger Williams's views upon the etiology of cancer are of much interest. He has collected a large amount of evidence tending to prove Moore's statement "that cancer is eminently a disease of persons whose previous life has been healthy and whose nutritive vigour gives them otherwise a prospect of long life." From the considerations brought forward he concludes that the disease is prevalent mainly amongst the well-to-do and easy-going who habitually eat more than is good for them. An observation of much importance is that of 137 patients under observation with cancer of the uterus only 13 had suffered from previous disease of that organ—viz., leucorrhœa, seven; prolapse, three; and endometritis, three.

There are many other interesting observations for the consideration of which we must refer our readers to the book itself. The amount of material dealt with is enormous, including as it does not only the author's own experience but also a large number of references to foreign literature. We can cordially congratulate Mr. Roger Williams upon the production of an eminently readable book and one which will probably long remain as the best monograph upon the subject.

LIBRARY TABLE.

Electro-Hæmostasis in Operative Surgery. By ALEXANDER J. C. SKENE, M.D. London: Henry Kimpton. 1901. Pp. 160. Price 10*s.* 6*d.* net.—We learn from Dr. Skene's preface that this work was issued to supplement the third edition of his book on diseases of women. The greater part of it therefore deals with gynæcological surgery. At the outset we may remark that we think that the title is badly chosen. The hæmostatic agent is not electricity but heat, albeit the source of heat is electricity. Dr. Skene's method is, in fact, an adaptation, and a very useful one, of the ordinary cautery. The advantages of the electrical cautery are, of course, that the instrument can be placed in position when cold, that the degree of heat can be exactly regulated, and that the heat can be practically instantaneously cut off. The vessels are not burned but simply cooked—that is to say, their albuminous constituents are coagulated and the walls are fused together. Dr. Skene gives a detailed account of the use of this method in various operations, and the book concludes with two chapters upon Asepsis and Antisepsis. Altogether a study of the cases cited by Dr. Skene shows the great superiority of this method of hæmostasis over ligatures, however carefully sterilised these latter may be.

Appendix XIV. to the Second Edition of the Descriptive Catalogue of the Pathological Specimens contained in the Museum of the Royal College of Surgeons of England. By SAMUEL G. SHATTOCK, Pathological Curator of the Museum. London: Printed and sold for the College by Taylor and Francis. 1900. Pp. 56.—This appendix contains descriptions of the pathological specimens added to the Museum during the year ending July 1st, 1900. As might be expected, a number of the specimens deal with gunshot wounds and the missiles inflicting them. A very interesting and uncommon specimen is shown in Number 599A, which illustrates the conditions found in the right forearm and hand of a chimpanzee. The tendons of the flexor profundus digitorum were ruptured near their insertion into the terminal phalanges. The tendon of the index was tied in a knot around the unruptured tendon of the flexor sublimis, after having been withdrawn completely through the slit in the latter.

La Mécanothérapie. Par le Dr. L. R. REGNIER. (*Mechanotherapy.* By Dr. L. R. REGNIER.) Paris: J. B. Baillière et Fils. 1901. Pp. 92. Price 1 franc 50 centimes.—This little book forms one of a series entitled "Les Actualités Medicales," and to give it its extended title is an account of the application of movement to the cure of diseases. Dr. Regnier is the physician in charge of the electrical department at the Charity Hospital in Paris and probably, therefore, has a wide experience of that class of patients which includes those obviously suffering from something but who present no very definite symptoms. Such patients, be they "neurasthenic" or not, generally end up in the electrical department and without doubt get great relief from properly carried out exercises and massage. In addition to such cases those patients suffering from disorders of nutrition, commencing lateral curvature, and certain forms of morbus cordis are undoubtedly greatly benefited by exercises. Dr. Regnier gives a clear account of the various apparatus and exercises and the methods of applying them. Any practitioner wishing to make himself acquainted with mechanotherapeutics will be enlightened by a study of the book now before us.

Science and Mediæval Thought. By THOMAS CLIFFORD ALLBUTT, M.A., M.D. Cantab. London: C. J. Clay and Sons. 1901. Pp. 116. Price 2*s.* 6*d.* net.—This is a reprint of the Harveian Oration delivered before the Royal College of Physicians of London on St. Luke's Day, Oct. 18th, 1900, and of which an abstract appeared in THE LANCET of Oct. 27th, 1900, p. 1179. It is a scholarly and learned review of some aspects of mediæval thought and of the influences which withstood Harvey in his works, in his discoveries, and in the acceptation of them. Arid and erroneous as in many ways was mediæval philosophical thought, yet, as Professor Clifford Allbutt finely says in his introduction, "Their many errors came not of indolence, for they were passionate; not of hatred of light, for they were eager for the light; not of fickleness, for they wrought with unparalleled devotion; nor, indeed, of ignorance of particular things, for they knew many things; they erred because they did not know, and they could not know, the conditions of the problems which ...... they were nevertheless bound to attack." The dread of change was one great obstacle in Harvey's way, and yet from the discussions and the troublings of mediæval minds seeking the truth and believing that they had found it was possibly bred that cast of mind which, in the bodies of Galileo, of Copernicus, of Kepler, and of Harvey, gave rise to those discoveries which revolutionised the conceptions hitherto held of the universe and of the many problems connected with life.

The Annual Charities Register and Digest for 1901. With an introduction by C. S. LOCH. London: Longmans, Green, and Co.—The current issue of this invaluable work gives a succinct account of every "charity" worthy of the name and of some among the "spiritual institutions" which, in our opinion, have *no* right to the name. Mr. C. S. Loch of the Charity Organisation Society contributes a most interesting introduction and the value of the book is further enhanced by an elaborate index. Ill-given alms are capable of doing incalculable harm, but a consultation of this book should go far in helping the almsgiver to distribute his charity with reason.

How to Read the Money Article. By C. DUGUID. Second edition. London: Effingham Wilson. 1901. Pp. 138. Price 2*s.* 6*d.*—This is a very useful little book, and when the author says that any city editor could easily have written it he makes too light of his accomplishment. Doubtless no one could fill the post of a city editor who had not at his finger's ends the information given in Mr. Duguid's pages, but it is not everybody who knows a technical subject well that can impart his knowledge well. On the contrary, fulness of knowledge is sometimes apt to lead to loss of proportion in the presentation of different points, to obscurity where the writer assumes in his readers too much knowledge, and to weariness where the writer, taking an exactly opposite course, considers it his duty to instruct his audience on matters of common elementary experience. These various pitfalls are neatly avoided by Mr. Duguid who in teaching us to understand the money article of the daily press incidentally gives the ordinary investor much valuable information. There has been a great growth in the number of companies of recent years and this extension of the limited liability system to all sorts of concerns has been enormously increased by what Mr. Duguid calls "the apotheosis of the one-pound share." Amateur financiers have now become so numerous in the land that we are sure many of our readers must be among their body. If they intend to watch over their own pecuniary interests they ought to know the lessons of this little book, but they must understand that ability to read the money article with intelligence will not make it prudent for them to embark upon investment without expert advice.

JOURNALS AND MAGAZINES.

La Grèce Médicale.—The opening article of the March number is by Dr. Raynardt of Paris and is a biographical sketch of Dr. John A. Foustanos of Syra, the editor. Dr. Foustanos was born in Sparta in 1856 and took a medical degree at Athens in 1881, after which he served for a year as a medical officer in the Greek army, and then passed three years in medical study in Paris. On returning to Greece he settled in practice in Syra, became the correspondent of the Paris *Semaine Médicale*, was appointed director of the pathological department of the hospital, and wrote treatises on hypnotism and on new remedies, as well as a number of clinical reports of cases. His chief work, however, was the founding of two monthly medical journals, the only medical journals at present existing in Greece—namely, 'Ιατρική Πρόοδος (*Progrès Médical*), published in the Greek language, and *La Grèce Médicale*, published in French. In THE LANCET of August 11th, 1900, p. 454, we mentioned that Dr. Foustanos took part in the International Congress of the Medical Press held in Paris, and THE LANCET of Oct. 6th, 1900, p. 1047, contained a short history of medical journalism in Greece since the year 1836. The biography of Dr. Foustanos is illustrated with a portrait in which he is shown wearing the decoration of the Order of the Saviour conferred on him by the Greek Government.

Praeco Latinus.—Although not in any way relating to medicine, this monthly serial of 32 pages, the size of which is a little smaller than those of THE LANCET, deserves notice as a curiosity in journalism. Not the title only, but the whole of the contents, are in Latin and on the covers there are full-page advertisements of an American firm of tool-makers, a nail-maker, a hatter, and the Hammond typewriter all in the same language. Among the various articles in the January number may be mentioned a poem by the Pope, an instalment of a translation of Silvio Pellico's well-known work "Le mie Prigioni," and a description of Admiral Dewey's reception on his return from the war with Spain; there are also correspondence columns. Many might feel a certain amount of interest in a periodical of this kind. *Praeco Latinus* is copiously illustrated, chiefly with views in Rome, the frontispiece being a fine portrait of the Pope. All communications are to be sent to Letter Box 228, Philadelphia, U.S. of America. The annual subscription for countries other than America is $1.74, or 6*s.* 10*d.*

# Analytical Records
FROM
THE LANCET LABORATORY.

TABLOIDS: (1) SODIUM BISULPHATE; (2) BENZOIC ACID COMPOUND; AND (3) ERGOTIN.

(BURROUGHS, WELLCOME, AND CO., SNOW-HILL BUILDINGS, LONDON, E.C.)

THE tabloid of sodium bisulphate is the outcome of the suggestion that this salt may be used for sterilising water infected with the enteric bacillus. A paper on this subject by Dr. L. C. Parkes and Dr. S. Rideal, F.I.C., appeared in THE LANCET of Jan. 26th, 1901, p. 234. It appears that a solution of sodium bisulphate in the proportion of one gramme of the salt to a pint of water is capable of destroying the typhoid bacillus after 15 minutes' contact. Water containing this small proportion of the salt does not appear to be unpalatable whilst possessing a slightly acidulous taste. The convenience of the tabloid for this purpose is obvious. Three tabloids are sufficient for one pint of water. The effect, however, of regularly taking this salt has not yet been completely ascertained. Doubtless the laxative effect would be slight, but it is maintained by some that the sulphates in plastered wines are responsible for cirrhosis. This, however, in our opinion is not probable Each tabloid contains five grains of the acid salt. The tabloid benzoic acid compound is based upon the following excellent formula: benzoic acid, half a grain; codeine, one-tenth of a grain; menthol, one-tenth of a grain; powdered ipecacuanha, one-tenth of a grain; cocaine hydrochloride, one-fortieth of a grain; and of red gum a sufficiency. A glance at this formula will show that the tabloid possesses expectorant properties and may act locally as a mild anæsthetic and astringent. The ergotin tabloid contains one grain of the hæmostatic principle. The tabloid is sugar-coated and is prepared from a reliable extract of known therapeutic efficiency.

GLOBINAL.

(F. WILLIAMS AND CO., 83, UPPER THAMES STREET, LONDON, E.C., AND WILCOX, JOZEAU, AND CO., 49, HAYMARKET, S.W.)

Globinal is described as a natural albuminate of iron and our analysis confirms the description. The substance is contained in capsules in the form of reddish-black scales which are easily soluble in cold water, yielding a blood-red solution. The solution shows two absorption bands when examined by the spectroscope identical with hæmoglobin. Our analysis was as follows: mineral matter, 2·90 per cent., containing 0·25 per cent. iron, the balance being due to other blood salts; albumin, 83·70 per cent.; and moisture, 13·40 per cent. Globinal may therefore be regarded as a highly nutritive hæmatinic. Albuminate of iron is without the drawbacks of ordinary iron preparations and does not affect the teeth or give rise to constipation. Its administration improves the powers of nutrition and thus globinal has been administered favourably in neurasthenia, anæmia, and chlorosis.

SYRUP OF GLYCEROPHOSPHATES.

(WYLEY'S, LIMITED, COVENTRY.)

This is a somewhat brilliantly-coloured syrup with characteristic saline taste. The glycerophosphates are contained in the fluid unimpaired and are permanent on account of the concentrated state of the syrup. Each fluid drachm contains three grains of the combined dry glycerophosphates of lime, soda, potassium, iron, and magnesia. As is well known, the administration of the glycerophosphates has given favourable results in disorders of the processes of nutrition. The fact that lecithin, which is contained in the nervous tissues and blood corpuscles, splits up into choline and glycerophosphoric acid during digestion has suggested the administration of glycerophosphates in nervous diseases.

THE LANCET.

LONDON: SATURDAY, MAY 4, 1901.

The Home Office and Medical Witnesses' Fees.

THE reply of Mr. RITCHIE to the question put to him recently in the House of Commons by Mr. W. F LAWRENCE, Member of Parliament for the Abercromby division of Liverpool, with regard to the fees of medical witnesses, has intensified the feeling of dissatisfaction among members of the medical profession. Mr. RITCHIE practically admitted that medical witnesses in England and Wales were remunerated at a lower scale than their brethren in Scotland or Ireland. However, he not only held out no intention of attempting to remedy so substantial a grievance, but declined to make inquiry. He adopted, in fact, the attitude of most of his predecessors in office, especially Sir MATTHEW WHITE RIDLEY and Mr ASQUITH The latter gentleman admitted to a deputation from the United Kingdom Police Surgeons' Association that the fees were inadequate and that his predecessors had allowed the same, but that not one had liked to raise the scale and that he had no wish to burn his fingers by doing so. It is contrary to reason and justice that the members of the medical profession, any one of whom is liable to be called as a witness in a court of law, should remain passive under such a long standing grievance. In dealing with the matter again at some length we know that we must be recapitulating what has already appeared in former articles, but we have no objection to repeating ourselves if good will come of it.

Medical practitioners have in many cases been summoned before magistrates to give evidence in cases which have been disposed of summarily, and on demanding a fee for their attendance and loss of time have been calmly informed by the presiding magistrate that there are no funds at his disposal for the purpose. In some large towns a fee of half a guinea is allowed in such cases, but only for one attendance. This, we submit, constitutes in itself a grievance which demands an inquiry. Passing on to those cases which go to a higher court and may for convenience be called "committal cases" the scale of fees is that fixed in 1858 Under this scale a fee of half a guinea per diem is allowed for attendance in the police-court, these fees being payable after the conclusion of the trial at sessions or assizes So far from being a just or adequate fee its offer is an insult to the medical profession. In the sessions and the assizes courts the fee is one guinea each day, a very insufficient sum for being present all day in court, even if the medical witness happens to reside in the city or town where the assizes or sessions are held. Should he be required to proceed to a court of sessions or an assize court held at a distance he receives the same fee with railway fare each way and an allowance of 2*s.* per night. Formerly first-class railway fares were allowed; now we learn that only second-class, and even third class, fares are given. It requires some effort to think and to write calmly on *this point, especially when the reason* why the medical witness has been drawn into the case at all is considered. Most probably he has been hastily called to a person seriously injured or suffering from symptoms of poisoning in which his prompt attendance is dictated by feelings of humanity regardless of any question of fee. Once in attendance he becomes a witness of facts to which he is required to testify before the coroner and the magistrate. By both these officials he is bound over in a heavy recognisance which compels him to be present at the assizes, leaving all questions of remuneration to the powers that be. Again, the medical witness may have been called to see a dead body, found under suspicious circumstances. This must not and cannot be a mere perfunctory duty (though it is too often an unpaid one), since, as the late Lord DEAS, one of the Scotch judges, observed, a medical man when he sees a dead body should notice everything. Or it may be a case of criminal assault on a female or one of unnatural offence—cases as uninviting as any professional witness can be called to. In all these cases the medical witness must leave his patients in charge of a locum-tenent or brother practitioner and proceed to the *locale* of the assizes, being detained there for some days or it may be for a week. After receiving the fee of one guinea per day and the second- or third class railway fare and the allowance of 2*s.* per night, he finds himself on his return home, and having paid his locum-tenent, not only without any remuneration at all, but out of pocket to a considerable extent. For it is manifest that the allowance of 2*s.* per night will not suffice to pay a hotel bill, this must be paid out of the one guinea per day which is supposed to remunerate the medical witness for his attendance. *These facts—for facts they are of the most stubborn* character—demand a Government inquiry, and if this were held it would be shown that so far from the grievances of the medical witness having been overstated they have been expressed with moderation.

Sir GEORGE GREY fixed the present scale in 1858 In 1862, just four years later, the case of REG. *v.* CHARLTON was tried at Carlisle. It was a case of murder, the deceased woman having been murdered under circumstances of great brutality by an engine-driver who was not arrested until a month afterwards The evidence was circumstantial and the *medical* evidence formed a very important part of it. The late Mr. WILLIAM BOUSFIELD PAGE, the leading surgeon of Carlisle and the principal medical witness, demanded the sum of 12 guineas for his two days' attendance in court On its being refused he appealed to the presiding judge, the late Mr. Justice WILLES, who promptly ordered it to be paid. The learned judge's decision was probably stiffened, if not prompted, by what had previously occurred at the commencement of the trial. The prosecuting counsel for the Crown had complained that the costs of the prosecution had been so cut down that he had been unable to have a plan of the scene of the murder and had been obliged to accept one prepared for the defence The learned judge severely rebuked this cutting down process and on the official responsible for it rising in court and stating that the costs of plans were always allowed when necessary he was promptly silenced. "I beg your pardon," replied Mr. Justice WILLES, "in a case recently tried by my brother BYLES the costs of a plan were disallowed although he ordered it to be prepared himself." It is to the point and suggestive in conjunction with this to notice Mr. RITCHIE'S answer to Mr. LAWRENCE that any increase of medical witnesses' fees would lead to a great increase of the costs of prosecution. What does that matter? Why should not the truth be properly paid for?

In addition to the grievances of attendance at police, sessions, and assize courts for inadequate remuneration there is growing cause of complaint of the low fees paid for attendance at coroners' courts. Nor can it be surprising, for if the scale fixed in 1858 be insufficient, what must be said of that fixed in 1836 for the coroners' court and re-enacted in 1887 without any amendment and, so far as we can learn, without any protest from any Member, medical or lay, of the House of Commons? Is there no difference between the value of a guinea in 1836 and now? Is one guinea a reasonable fee for making post-mortem examinations and one guinea sufficient for attending an inquest twice, or it may be three times? The cry for reform all round in the matter of the remuneration of medical witnesses is outspoken. Will the present Government grant the very reasonable request that medical practitioners shall not be compelled to aid justice at a pecuniary cost to themselves? Will they refrain from discouraging the practice of medical jurisprudence by general practitioners of the present day? It is not only possible, but probable, that if the present obdurate attitude of the Home Office be not relaxed justice may in the near future be very seriously compromised.

The Medical Profession and the Budget.

MEDICAL men are not as a rule particularly interested in party politics, nor is it the function of a medical journal to join in the strife of contending statesmen. Medical men, however, are not exempt from the payment of taxes and are as directly concerned in the incidence of these imposts as are their fellow-citizens. It is fitting, therefore, that we should consider what the effects on the medical profession will be of the Budget proposals now before the House of Commons. It is our opinion that these proposals will press very hardly on medical men at a time when the profession can ill bear the strain. The fees which they obtain as the result of their intellectual work have not been increased, although during the last few years the cost of living has in many directions been raised and the cost of scientific education has been doubled. Hard-working general practitioners pay to the revenue an amount disproportionately large as compared with that paid by most other classes of the community, while they receive from the Government the scantiest recognition—almost no help—in their efforts to preserve the health of the people and to maintain a high standard of efficiency.

It unfortunately happens that many of the patients from whom our readers who are in general practice might expect to receive the bulk of their incomes are affected in the same way as the medical practitioners are affected by an increase in the income-tax, a tax which, as a matter of fact, is felt by the intellectually labouring classes and the lower middle classes more than by any other section of the community. The people who were once termed "the industrious classes," and whose present representatives are still called "the labouring classes," do not under the present conditions of life contribute their just proportion to the national exchequer. They are exempt from any payment of the income-tax, as a rule they pay nothing whatever for the education of their children, and they usually obtain medical treatment and medicine at no cost to themselves or at such a cost that the medical profession has had to object to the starvation terms offered to requite its services. To the rich the increase in the income-tax is an annoyance, but it is one which can be borne without any great measure of discomfort. We fear, however, that in the case of very many people with small incomes the increase will be a real hardship. We are convinced, by the way, from correspondence that we have received, that many medical practitioners at present pay income-tax on a larger amount than they need. Many men, especially those who live in the country, have a great objection to deal fully with their private business matters in a return which has to be sent to somebody who lives near and whose complete discretion they mistrust. To admit a decrease in their annual takings, they rightly or wrongly feel, would be dangerous, for the fact might leak out to their damage, and so they accept year after year a too high assessment. Again, like many other people, medical men we know frequently neglect to fill up the statutory declaration in regard to their incomes and are content to have the amounts assessed for them. This state of things often goes on year after year till the assessor increases the sum to be paid to an unreasonable amount. The trouble and the expense of an appeal are at length considered, though the consideration stage is as far as matters generally get. A careless or a busy man often pays more income-tax than he ought, partly because of the trouble unavoidably entailed in getting the matter righted and partly in some cases because he objects "to plead poverty"—as he explains the matter to himself. Doubtless much annoyance is necessarily caused when a gossip has charge of the collection of the income-tax, but it is our opinion that this is not common and that for the most part apprehension is groundless. Medical men would do well, when they object to their assessment and when they fear a leakage of their private affairs if they remonstrate with the local official, to apply to have their assessments made by the Special Commissioners under the provisions made for that purpose. A little trouble may at first be caused by this method of proceeding, but in the long run annoyance will be saved.

Even when medical men take the trouble to make their returns we know that many in estimating their net incomes do so in a way which is very favourable to the Inland Revenue. A shopkeeper looks upon the rent of his business premises as part of his necessary trade expenses. In like manner it is a necessary part of the trade expenses of a medical man to rent his house, or at any rate his surgery. If his surgery is separate from his house he pays no income-tax upon the rent of it. If his house is also his business address he pays no income-tax on two-thirds of the rent. Do all medical practitioners in estimating their taxable income take this matter into account? We know they do not, for we have had returns submitted to us where the error of making no allowances for rent had occurred. A shopkeeper who delivers goods rightly looks upon the cost of his carts and horses and carmen as part of the expenses of his business. Many medical practitioners who keep horses, carriages, and grooms to enable them to visit their patients do not keep proper accounts by which they can show which of the expenses thus entailed are absolutely necessary to their business inasmuch as without them the practice could not be carried on. They have only themselves to thank if they pay more than a fair contribution to the national chest

The Prospects of Plague in London.

THE occurrence last week of a suspected case of plague in London serves to remind us that the year may not pass away without the appearance of this disease in the London population. Plague has already been ship-borne to several English ports, and the appearance of the disease in the Cape, where Europeans as well as natives are being attacked, makes it probable that there will be further importations It is hardly to be expected that the vigilance of the port sanitary authorities will suffice to prevent attacks of persons resident in this country, while the free communication between London and South Africa makes the invasion of the metropolis a likely event.

The recent case is not, we understand, officially regarded as plague, but under the circumstances attention may reasonably be directed to the question whether the prevalence of plague, if it should come among us, will attain large proportions or whether it will be limited to localised outbreaks of inconsiderable importance. We think that there are ample reasons for believing that there will be no general prevalence and that the efficient performance of duty by the local authorities concerned will suffice to prevent any epidemic of magnitude. This opinion is necessarily based upon the past history of the disease. We read of its behaviour in London in the middle of the seventeenth century, when in some six months a large proportion of the population perished; we know the extent of its operations in recent years in India and other countries; and the lesson taught by the experience of 1665 accords with that derived from observations of the behaviour of the disease as it has revealed itself in many Oriental cities in our own time Plague is a disease manifesting an enormous power to attack persons living in conditions of filth and degradation, but possessing limited power to attack persons living under the better and cleaner conditions of the twentieth century. In India it has been practically limited to the native population, and in Glasgow it was last year limited to the lowest class of the population In London we may expect that it will observe much the same rule. If explanation is required for its large diffusion in 1665 it is no doubt to be found in the character of the population of London at that time and 20 years later, when, as MACAULAY tells us, "the pavement was detestable; all foreigners cried shame upon it. The drainage was so bad that in rainy weather the gutters soon became torrents Several facetious poets have commemorated the fury with which these black rivulets roared down Snow-hill and Ludgate hill, bearing to the Fleet Ditch a vast tribute of animal and vegetable filth from the stalls of butchers and greengrocers." The rich lived in luxury, but they were comparatively few in number and they were in intimate association with the crowds of poor and uncivilised people who made up the mass of the population. St. James's-square, occupied by wealthy peers, "was a receptacle for all the offal and cinders, for all the dead cats and dead dogs of Westminster." The conditions which now are seen to foster plague in Eastern countries were then everywhere present in London. These conditions have passed away. London still has its slums, but the worst have gone and only in small proportions is a population to be found comparable to that which made up the mass of the people in 1665 It is a somewhat striking fact that the London County Council is now engaged in the clearance of the Clare Market area which was the abode of fashionable people in the time of the Great Plague Conditions involving want of air and light, bad arrangement of the houses and streets which were then deemed adequate for the well-to-do are not now regarded as fit for the poorest of the population of modern London

This vast change which has come over the metropolis gives us an assurance of security which is the more reliable because we see in our own time that plague is able in the East to distinguish between the native and European races—the natives living under conditions which approximate to those of London in 1665 and the Europeans under conditions which resemble those of London at the present time. The extent to which plague may become prevalent in London will undoubtedly depend in some degree on the character which the disease assumes In this connexion it is deserving of note that plague in the year 1625 was much less destructive of human life than in 1665, although if any difference existed between the conditions of London in those two years it is probable that those of the earlier year were worse We have, however, now to reckon on an improved sanitary organisation, and this for the purposes of plague is fairly complete Precautionary measures against plague have been very properly taken by the London County Council in conjunction with the Metropolitan Asylums Board The measures suggested by the Public Health Committee of the Council were adopted at a meeting of the Council held on Tuesday last, April 30th. Every medical practitioner can now on application have from the London County Council the services of an expert to assist him in the diagnosis of any case presenting suspicious symptoms. Material from such cases will be subjected to precise bacteriological examination. Suspected as well as actual cases of plague will, on the certificate of the London County Council's expert, be isolated by the Metropolitan Asylums Board, and the Council will itself provide isolation houses for persons who have been exposed to plague, where they will be under medical inspection until such time as it can be determined that they have not been infected The investigations by the officers of the local sanitary authorities and the disinfection and destruction of infected articles should suffice to prevent an infected house becoming a source of further danger to the community. Interest will undoubtedly be felt in the increasing prevalence of plague at the Cape, and especially in the larger proportions of Europeans who have been attacked. It is probable that we shall learn later whether the cases have been of the pneumonic variety in larger proportion than in India. Should this form of disease make its appearance in England it will call for active treatment by the local authorities.

Annotations.

"Ne quid nimis."

MEDICAL OFFICER OF HEALTH AND PUBLIC ANALYST.

WE have consistently maintained that the posts of medical officer of health and public analyst in large districts or in the metropolitan boroughs should not be combined in the same person. The science and practice of sanitation are in themselves quite sufficient to occupy all the time of a medical officer who discharges his duties efficiently, in which case he would be prevented, in our opinion, from giving that systematic attention to laboratory work which is essential to the performance of the duties of a public analyst. Though we know that there are competent officers who combine both posts, yet we are convinced that the best work in both departments cannot, as a rule, be combined in the same person. The duties of a public analyst are very different from what they used to be: they demand much more of his time, greater skill, and more attention. The art of adulteration is more consummate than ever, and the public analyst must be more consummate than ever in order to detect adulteration; the medical officer of health cannot reasonably be expected to keep pace with modern methods of detecting fraud. Again, the number of samples hitherto taken under the Sale of Food and Drugs Act has been grossly inadequate—a fact which, as we have repeatedly shown, has done more than anything to maintain a high rate of adulteration. The duties of the medical officer of health should engage his time and attention to such an extent that to examine efficiently, say, 500 samples a year would be an impossibility. We do not think, therefore, that the municipal bodies are well-advised in combining the appointments of medical officer of health and public analyst. Such a combination is not for the public advantage. We were glad to learn that the Corporation of the City of London—though, we believe, under representations from the Local Government Board—decided on the death of the late Dr. Sedgwick Saunders, who was both the medical officer of health and the public analyst of the City of London, to separate the posts and to appoint two distinct persons. It has recently been disclosed that only 135 samples per annum were taken for analysis in the City of London—a number which was probably as much as the medical officer of health could examine in the time at his disposal. We trust that now a public analyst has been appointed separately the number of samples will be at least four times as much—or at any rate in accordance with the recommendation that at least one sample should be taken per 1000 of the population—and that the Local Government Board will press upon the corporation the desirability of taking an adequate number of samples. We feel sure that those authorities who have already decided to combine the posts of medical officer of health and public analyst in one person will ultimately find that they have established a wrong precedent—not because the medical officer is incompetent to make analyses, but because he has not the time to give to the analysis of food and drugs that specific attention which is desirable. As a rule, the duties of a medical officer of health are quite onerous enough in regard to sanitation without the additional burden of having to undertake the analysis of some hundreds of samples per annum of foods and drugs. Both departments, it seems to us, cannot be conducted by one person with that efficiency which in the public interest is desirable. Moreover, the best results are sure to be gained by two independent men, each with his special knowledge, acting in coöperation. The example of the City of London in separating the offices of medical officer of health and public analyst should be followed in all large districts, but that this is not to be the rule will appear from the following extracts from two advertisements which have appeared in the papers during the last few weeks.

> **Metropolitan Borough of Lewisham.**—APPOINTMENT of MEDICAL OFFICER of HEALTH and PUBLIC ANALYST.—Public Health (London) Act, 1891, and Sale of Food and Drugs Acts, 1875 to 1899.—Notice is hereby given that the Council of the Metropolitan Borough of Lewisham will, at their meeting on Wednesday, the 22nd May, 1901 (or at such adjournment thereof as may be resolved upon), proceed to the appointment of a duly qualified Medical Officer of Health and Public Analyst for the Borough, agreeably to the above-mentioned Acts, at a salary of £800 per annum—that is to say, £600 as Medical Officer of Health and £200 as Public Analyst, the Council to provide and furnish a Laboratory. ......
>
> The gentleman appointed must devote his whole time to the service of the Council and perform all the duties required of him by any Sanitary Acts of Parliament and the Sale of Food and Drugs Acts and such other professional duties as may from time to time be required of him by the Council.

> **Borough of Leicester.—Medical** OFFICER OF HEALTH and PUBLIC ANALYST.—The Corporation of Leicester are prepared to receive applications for the office of Medical Officer of Health for the Borough.
>
> The gentleman appointed must be a legally qualified medical practitioner, and hold a diploma in Sanitary Science or Public Health. He will be required to act as Medical Superintendent of the Isolation Hospital and (subsequent to the requisite confirmation) as Public Analyst and to devote the whole of his time to the duties of the office

It is interesting to add an extract from another advertisement which we have noticed this week. It runs as follows:—

> **Metropolitan Borough of Stepney.**—APPOINTMENT of ASSISTANT PUBLIC ANALYST.—The Council of the Metropolitan Borough of Stepney are prepared to receive applications for the appointment of an Assistant Public Analyst. The person appointed will be required to act under the direction of the Medical Officer of Health and Public Analyst and to devote the whole of his time to the duties of his office.

Evidently the Council of the Metropolitan Borough of Stepney have found it expedient to seek the services of an analyst so that their medical officer of health may be freer to attend to his own special duties, having occupied previously the combined post of public analyst and medical officer. We predict that other boroughs will find ultimately that they will have to adopt a similar course, and those who still have to make these appointments would do well if at the outset they appointed one man to the post of medical officer of health and another to the post of public analyst.

THE PUBLIC PROSECUTOR AND HIS INACTION.

A VERY interesting discussion took place in the House of Commons on April 26th at the instance of Mr. Goddard, the Member for Ipswich, who called attention to the staff of the Solicitor to the Treasury, King's Proctor, and Director of Public Prosecutions. Mr. Goddard pointed out that of 20 officers in the department six were either pluralists or were receiving salaries personal to the present holders of the positions. There were three assistant solicitors with salaries of £600 rising to £800. Of these three one was also Assistant King's Proctor and received for that position an additional £1000 a year. And now it was proposed to create an Assistant Director of Public Prosecutions—an entirely new office. There was much complaint of the inaction of the

Public Prosecutor, Mr. Caine, Sir Henry Fowler, and others being the critics. In this matter, as in most others, the complaint is not so much of the money spent, though that is serious enough, as of the inadequate service rendered to the public—the absence of a sufficient *quid pro quo*. Sir Robert Finlay gave the usual official support to the value of the work done by the Public Prosecutor and said that it was "admirably done." We are sorry that we cannot agree with the Attorney-General in this view. As medical journalists we have had much occasion to see the uselessness of this official and of his *entourage*. In the class of cases in which he has been asked to prosecute coming specially under our notice we have rarely seen any power displayed but the power of making excuses for doing nothing. The whole question of the work of this department needs investigation. Perhaps one of the reasons why the Director of Public Prosecutions so seldom sees his way to prosecute is the number of other offices he holds—he is also, we believe, Solicitor to the Admiralty, the Charity Commission, the Home Office, the Treasury, the War Office, and the Works Commission, and King's Proctor.

THE EARLY DIAGNOSIS OF MENTAL DISORDER.

PROFESSOR C. F. MACDONALD of New York University, formerly President of the New York State Commission in Lunacy, contributes to the first number of *American Medicine*, published on April 6th, 1901, a paper referring to the important subject of the early diagnosis of insanity. In the majority of cases, as he points out, the responsibility of recognising insanity in its early stages falls upon the family physician. While the occurrence of insanity in a family is fraught with serious, painful, and distressing circumstances to patient and relatives, to the community its continued increase means the provision of large public asylums and an increased expenditure of public money for the care and treatment of the insane. Thus the State of New York has at the present time, in round numbers, 22,000 insane persons under care, which implies an original capital outlay of 20,000,000 dollars for hospitals and their equipments, and an annual expenditure of 5,000,000 dollars for the care and treatment of the inmates. A considerable number of cases in the early stages of insanity may, especially among the wealthy classes, be properly and safely treated at home provided they are in competent medical hands. Insanity is a disease of gradual onset in most instances and the prodromal stage —that of alteration of conduct and character in contradistinction to that of actual mental aberration—may last for weeks or months. Relatives and friends are often the first to detect slight changes in character and lapses from the normal self, though they often make the mistake of attributing these to mere eccentricity or else they endeavour to conceal them or to make light of them in their ignorance. The prodromal symptoms of insanity are both somatic and psychical. The somatic symptoms include insomnia and headache, tinnitus aurium and vertigo, pavor nocturnus, feebleness of circulation in the extremities, anorexia, and constipation. The co-existence of persistent insomnia, constipation, and headache should always be regarded as serious, especially if they are associated with general apathy or mental irritability in a person previously active and well. The psychical symptoms may assume the form of undue exaltation and loquacity, levity of conduct in a person hitherto steady, depression of spirits, marked introspectiveness, hypersensitiveness of conscience, morbid aversion to friends, undue suspicion towards others, suicidal longings, and persistent forebodings of evil Any lapses from morality and decency in persons previously steady and well-behaved constitute warnings of a graver kind. If other predisposing factors co-exist, such as alcoholic or drug habits, cranial injury, sunstroke, epilepsy, prolonged mental anxiety, or recent ill-health, skilled medical advice should at once be sought. The presence of alcoholic intoxication, of delirium tremens, or the occurrence of meningitis or sunstroke, must be kept in mind as possibly masking or even simulating an attack of insanity. If hallucinations are present, and especially if delusions are associated therewith, the diagnosis of insanity would be confirmed. Special attention should be paid to the facial expression, the appearance and reaction of the pupils, the speech and handwriting, many of which are characteristically influenced in the early stages of mental disease. The importance of relieving insomnia, particularly if it is associated with slight mental depression and constipation, can hardly be over-estimated. Insomnia easily becomes a habit, and if allowed to go on unchecked it produces cerebral exhaustion and predisposes to mental disease. This threefold group of symptoms—viz , insomnia with mental depression and constipation, is so common at the onset of the acute psychoses that the experienced physician will anticipate the risk and seek by early treatment to avert the threatened attack.

LONG HOURS IN SHOPS.

AT the sitting of the Select Committee appointed by the House of Lords to consider the question of early closing for shops, which took place on April 29th, both Sir William S. Church, President of the Royal College of Physicians of London, and Sir William Mac Cormac, President of the Royal College of Surgeons of England, gave evidence. Both agreed that the hours in shops were too long and Sir William Church pointed out that the extent of injury depended not only on the length of time during which the shop assistants worked but also upon such matters as the ventilation, lighting, and condition of the buildings. Sir William Mac Cormac said that in his opinion the matter deserved the earnest attention of the Government. We are glad to see the leaders of the medical profession in England speaking out upon this matter, for it is one which is of the utmost importance to a very large body of our fellow-citizens. *The public do not seem to realise that supposing a* shop to open at 9 A.M. and to close at 7 P.M. it does not simply mean 10 hours' work for the assistants. It means something much more like 12 or 13 hours in many shops, particularly those of the drapery trade. Of course, as Sir William Church pointed out, in a small shop where there were no assistants but business was attended to by members of the family compulsory early closing would be unnecessary. But it is in the large establishments that legislation is called for.

THE PECULIAR PEOPLE AGAIN.

TWO members of the sect known as the Peculiar People were tried before Mr. Justice Phillimore at the last Old Bailey Sessions. Their case presented the features that have become so familiar in the criminal courts, and it occasioned the usual embarrassment when the question of punishment had to be decided. They had had 13 children, of whom five had died without receiving medical aid, and in the case of the fifth, an infant six months old suffering from pneumonia following whooping-cough, the "elder" had been summoned and he had pursued the usual course of anointing and prayer, but the child had died notwithstanding. It was, as is usual, impossible to prove in the sense required by the criminal law that the child would have lived had a medical man been in attendance, and so the charge of manslaughter was dropped and the parents were convicted of causing unnecessary suffering to their offspring. The male prisoner seems to have cross-examined the medical witness who had made the post-mortem examination as to whether if the prayer and the oil had caused cessation of pain there would have been evidence of this cessation of pain discoverable after death (to which he naturally received a negative answer), and he was no doubt genuinely imbued with a fanatical belief in the righteousness of his conduct. In the end, however, the jury convicted him and a fine of £20 was imposed and promptly paid, while the female prisoner, his wife, was bound over to come up for judgment if called upon, Mr. Justice Phillimore being of opinion that a more severe sentence would introduce an element of religious martyrdom into the proceedings. On the other hand, the danger of sentences being too light in such cases arises from the fact that it is an advantage to some parents to be able to get rid of their children, and that the risk of being fined may be worth incurring by people who may have no other motive for being "peculiar" than the desire to diminish their responsibilities with impunity. Whether an "elder" would detect such a motive and refuse to be called in by converts of this description we cannot say. At present the children of the Peculiar People do not constitute a large class, but they none the less deserve that the dangers to which they are exposed should be seriously considered.

REORGANISATION OF THE MEDICAL SERVICES OF THE AUXILIARY FORCES AND OF THE ARMY MEDICAL RESERVE.

WE have received a copy of the proceedings of the Conference on the Re-organisation of the Medical Services of the Auxiliary Forces and of the Army Medical Reserve, held on Dec. 19th, 1900, under the presidency of Professor Thomas Annandale, F.R.C.S. Edin., in which Professor Chiene and a number of officers of the volunteer forces, yeomanry, and volunteer medical staff corps took part. The conference was arranged by the East of Scotland Tactical Society. We are very glad to see that a movement of this kind has been started because the more light that is thrown upon the subject of medical aid in modern warfare and the more people are interested and the matter is discussed the better. The chairman opened the proceedings by adverting to the experience of the South African War and by giving a preliminary sketch of the objects which the society had in view and, as a teacher in an important medical school, he offered some remarks upon the training and position of the members of the Royal Army Medical Corps. He said that the members of that corps and the civil surgeons connected with them had done their duty nobly, and it was not with them that there was any dissatisfaction, there was, however, a general desire to assist the Government by carefully considered suggestions for the improvement and reform of the medical services of the regular army and reserve forces. The report of the Royal Commission on the Hospitals in South Africa not having been published, however, at the time the chairman and those taking part in the conference were labouring under the disadvantage of not knowing how matters stood. Professor Chiene remarked that if the civil surgeons who were to assist in time of war were to be apart from the volunteers then he held "a strong view that it should be an Imperial force, and that in the old country and in the colonies there should be men and women chosen for their special knowledge in the treatment of disease and injury, in the prevention of disease, and in the nursing of the sick. It appears to me that every hospital in the country should be asked to supply men as physicians and surgeons." We are glad to notice that Surgeon-Captain Hepburn, Edinburgh Company, Volunteer Medical Staff Corps, speaking of the men who enter the Army Medical Services, said that some time ago he took the trouble to look up the statistics of Edinburgh University for the last 15 years and he was surprised to find that a very large number of class medallists and demonstrators had gone into the home and Indian service and that the professional status of the men "sent into the medical service of the army was quite as good as any corresponding number of men sent into any other professional walk in life in the world." A number of volunteer medical officers took part in the discussion and many resolutions were passed, but the little pamphlet requires to be read *in extenso*, for it does not readily lend itself to analysis and criticism within a reasonable compass.

THE BIRMINGHAM CONSULTATIVE MEDICAL AND SURGICAL INSTITUTION.

IN our issue of April 27th, p. 1223, we noted that the Birmingham Consultative Medical and Surgical Institution had determined to advertise for two medical men in the place of Dr. H. Ward Irvine. We learn from the *Birmingham Gazette* of April 29th that the committee received a large number of answers from fully-qualified practitioners all over the country. The committee, however, were not satisfied with this response and they are now advertising for a physician, a surgeon, an oculist, an ear and throat specialist, and a gynæcologist. Again we wait with interest the result of the advertisement

SANITATION OF CHURCHES.

ACCORDING to the *Revue Scientifique* of April 27th one of the Italian bishops, Monsignor Franceschini, has sent to the clergy of his diocese a circular enjoining them to adopt sundry sanitary precautions in their churches. Immediately after saints' days, when the congregations have been large, the paved floors are to be cleansed with sawdust soaked in a solution of corrosive sublimate (1 in 1000). On ordinary occasions the floors are to be frequently swept, after a preliminary sprinkling with water in order to avoid raising dust. Every week or oftener the seats and confessional boxes are to be dusted with damp sponges and cloths. Every week or oftener the *grilles* of the confessional boxes are to be cleansed with alkaline lye and afterwards polished. The holy water fonts are to be emptied every week, or oftener if necessary, and washed either with boiling alkaline lye or with solution of corrosive sublimate (1 in 1000). Our readers will remember that THE LANCET of Jan. 27th, 1900, p. 252, contained a description of a new font for holy water devised by Mr. J. J. Bruns of Arnhem in Holland, and approved by the Archbishop of Utrecht. It is pleasing to find the clergy thus careful of the bodily as well as of the spiritual health of their people.

ON CERTAIN MENTAL AND NERVOUS DISTURBANCES DUE TO THE USE OF TRIONAL.

TRIONAL is now largely used as a hypnotic and cerebral sedative in various forms of nervous and mental ailments and thus the following case, which illustrates certain rare but important sequelæ following its use, has a special interest. Dr. Stuart Hart of New York refers to it in an article in the *American Journal of the Medical Sciences* for April. The case was that of a woman, aged 50 years, who for a period of 20 years was a sufferer from nervous depression, gastric dyspeptic troubles, and insomnia. She was apparently free from organic disease. For two months she had been taking trional at the rate of 15 grains every alternate day. At the end of that time (April 20th, 1899) she somewhat suddenly developed symptoms of acute gastro-intestinal irritation—viz., severe colicky pain, nausea, and vomiting. She was unable to retain food taken by the mouth, and only rectal feeding was possible. The trional was stopped and morphia was given hypodermically to allay the pain.

Hæmatoporphyrinuria next followed; a little albumin and a few granular casts appeared in the urine, and she began to suffer from cardiac disturbance and exhibited systolic and diastolic murmurs. The nervous disturbance took the form of peripheral neuritis leading to foot-drop and wrist-drop on the left side, and subsequently on the right side. These symptoms of extensor paralysis were preceded by tingling and pricking sensations about the vulva, the hands, and the feet The symptoms of hæmatolysis and renal disease above referred to were soon followed by those of cerebral toxæmia—viz., periods of delirium, mental confusion, and hallucinations of time and space. The pain in the extremities was complicated with pains and "girdle-sensations" in the abdomen which became severe. The skin generally was so hyperæsthetic that she could not tolerate the pressure of the bed-clothes. She lost flesh for the next few weeks, and had slight œdema of the ankles and considerable physical weakness. All these symptoms, however, gradually subsided and in the course of 12 months she quite recovered. The nervous troubles passed away in the order in which they appeared—viz., first the disturbances of the vagus and the heart, next the neuritis affecting the hand and foot on the left side, and lastly that of the hand and foot on the right side. The heart returned to the normal condition, leaving no trace of valvular disease or enlargement, and the mental condition was unimpaired, all traces of the hallucinations having completely passed away.

ASTRONOMY AT THE VATICAN.

IT is reported that an American citizen and a member of the Roman Catholic Church, who is much interested in celestial and terrestrial physics, has made what he calls a humble offering to the Pope in the shape of a telescope which is said to exceed greatly in size even the one shown at the Paris Exhibition of last year. His Holiness is stated to have accepted the gift, which is now destined to find a prominent place amongst the many valuable instruments of research of the Vatican Observatory which was presented just over a century ago by Cardinal Zelada with the then famous Dollond's telescope. In connexion with this statement it may be of interest to note that a very erroneous notion generally prevails with regard to the original development of the Vatican Observatory and that usually a quite recent date is assigned to it, though it would appear to be the oldest of its kind, with the exception, probably, of the one at Peking. It is true that the Vatican Observatory in its present outward appearance and constitution only dates back to 1888, the year in which Pope Leo XIII. celebrated the fiftieth anniversary of his priesthood. But there seems to be scarcely any doubt that an observatory tower was erected in Rome as far back as some time previous to 1582 and, as it would appear, chiefly in connexion with the reform of the Calendar. According to B. Crescenzi, the author of the important work which is entitled "Nautica Mediterranea," and which was published in Rome in 1607, Pope Gregory XIII. was mainly responsible for its erection It is recorded that the tower was intended exclusively for astronomical observations and researches, and there is, from an historical point of view, every reason to suppose that it was the first celestial watch-tower ever built in Rome. Since its erection, however, and partial endowment by Pope Gregory XIII., it passed through so many and so highly complicated vicissitudes that it now forms for the astronomical student a large and interesting field of historical speculation. We are, therefore, not surprised to observe that while it was at one time most anxiously cared for and the scientific work done there may be termed to have been of the utmost importance, at another time it was utterly neglected and devoid of any scientific management or control; finally, it became of world-wide renown at the beginning of the last century, chiefly on account of the scientific labours and able management of Philip Gill, who for a period extending over 30 years was its director. After the death, however, of Gill, which occurred in 1821, it again became quite disorganised. All the instruments and records were dispersed and the observatory itself was entirely deserted both as regards the scientific and social interests attached to it. In 1888 the Vatican Observatory commenced a new epoch in its history. In that year, as already mentioned, the commemoration of the fiftieth anniversary of the priesthood of Pope Leo XIII. took place, and on that occasion all the instruments and apparatus given by members of the Roman Catholic Church interested in celestial and terrestrial physics were brought together, and it then occurred to the organisers of the science section of the Vatican Exposition that they would find a suitable home in the old Gregorian tower. The suggestion was warmly approved and soon carried into effect and Father Denza, a great friend of Secchi, was now called upon to undertake the management of the revived observatory. He began his work in 1889 with a very interesting and varied programme which he and his able assistants have well carried out. The investigations which were thus introduced there relate to meteorology, terrestrial magnetism, astronomy, and lastly geodynamics. In addition, the building is well situated for meteorological researches and observations; moreover, it is well equipped with the most modern instruments necessary for the continuous record of meteorological data. Since 1889 it has always kept well apace with the times and would now bear comparison with any observatory in Europe.

OTITIS AND CEREBRO-SPINAL MENINGITIS.

MORE or less localised meningitis has long been a well-recognised sequel of otitis media, but diffuse affection of the cerebral and spinal meninges—cerebro-spinal meningitis—has not received much attention. At the meeting of the Société Médical des Hôpitaux of Paris on Feb. 1st M. Lermoyez reported two cases which showed that aural infection, even when slight, might give rise to cerebro-spinal meningitis by creating a means of entry for the meningococcus. More recently, at the meeting on March 8th, M. Vaquez and M. Ribierre described the following case. A woman, aged 37 years, entered hospital on Feb. 13th, 1901. Three weeks before, while in good health, she commenced to feel acute pains in the occipital region which for three or four days were without respite. Then the pains in the head diminished and pains in the lumbar spine, which radiated into the buttocks, the lower part of the abdomen, and the upper part of the thighs, appeared. Since June, 1900, she had had right purulent otitis which followed influenza. For several weeks there had been mental symptoms—depression amounting almost to melancholia, defective attention, and slight amnesia On admission the discharge was slight but very fœtid. The temperature was 104° F. and the pulse was 118. The occipital region was tender and was also the seat of spontaneous pains which constantly recurred. The patient had much difficulty in sitting up in bed and the movement aroused or increased the lumbar pains. Kernig's sign was well marked. Investigation of the knee-jerks was rendered difficult by flexor contracture. Intense delirium, the hydrocephalic cry, and rigidity of the neck followed. Lumbar puncture gave exit to pus containing a micrococcus which usually presented itself in the form of a diplococcus and took Gram's stain. Examination of the ear showed a polypus descending from the attic to the lower part of the middle ear. Death took place on Feb. 23rd. The necropsy showed some softening of the petrous portion of the right temporal bone and fibrino-purulent streaks on the anterior surface of the cerebellum and pons. The spinal canal was full of greenish-grey pus. Thus the meningitis was spinal more than cerebral. M. Vaquez and M. Ribierre drew attention to the non-severity of the aural condition and the absence of direct meningeal infection. They thought that the microbial invasion took place by the lymphatics and that instead of a local infection by contiguity a veritable sowing of the cerebro-spinal fluid with microbes took place.

THE REGISTRATION OF PLUMBERS.

A MEETING of representatives from various district councils throughout the United Kingdom and Ireland met some members of the Worshipful Company of Plumbers at the Guildhall on April 24th, when it was reported that some 2000 additional names had been added to the register within the past few months. The public will be well advised to welcome any measure that insures competency in those engaged upon the important work of the plumber, but the success of the movement rests more with the operative plumber than with the public. Unfortunately, until recently most of these men have regarded the aim at reform with indifference, because no immediate material gain appears likely to accrue to them from it. The Plumbers' Company, who have the best interests of the trade which they represent at heart, as well as a desire to benefit the public, have since the movement was inaugurated advanced a sum of no less than £25,000 to defray the excess of expenditure over income incurred in promoting the registration scheme, and the plumbers as a body should support them.

IMPROVEMENTS IN RADIOGRAPHY.

A DESCRIPTION of some recent improvements in radiographic apparatus was given not long ago by Dr. Rosenthal of Munich in an address delivered before the Munich Electro-technical Society. For the surgical localisation of foreign bodies, such as bullets embedded in the tissues, he had, in conjunction with Surgeon-General Professor von Angerer, devised an instrument called the "punktograph," which, he says, gives very accurate indications and can be used with the utmost facility. The punktograph consists of two rods having each a metallic ring at one end, and these rods are placed on opposite sides of the part of the body where the foreign object lies, in such positions that the latter, when viewed with the fluorescent screen, appears in the centre of both rings, and is therefore known to be in a line with them. The position of the rings being marked on the skin they are moved to other situations and the same process is repeated. The imaginary lines, the ends of which are thus marked on the skin, will obviously intersect in the foreign body, and its depth may be judged by a comparison of the distances between the two points forming each adjacent pair. With the help of apparatus manufactured by the Voltohm Electrical Company of Munich and Frankfort Dr. Rosenthal has, together with Professor Rieder, succeeded in taking photographs of the heart with an exposure of less than a second, and a number of such photographs will be inserted in a forthcoming work on the Roentgen rays in medicine by Professor von Ziemssen and Professor Rieder. All Roentgen ray images, whether photographs or views on the screen, are necessarily larger than the original object itself, because they are produced by the diverging rays from the focus tube. For examination of the heart, however, it is desirable to have the exact dimensions of the original, and this has been accomplished by the "orthodiagraph," devised by Professor Moritz of Munich and manufactured by the Voltohm Company. The illustration of the orthodiagraph shows a table on which the person to be examined presumably lies, and surrounding the table, near one end of it, is a rectangular moveable frame the plane of which is perpendicular. The focus tube is placed on the side of the frame which is underneath the table, and the principle involved seems to be the elimination of any error due to the divergency of the rays by moving the tube so that the outlines of the heart are traced out by rays which in all positions are parallel to a given direction.

THE NEW MEDICAL OFFICER OF HEALTH OF THE CITY OF LONDON.

DR. WILLIAM COLLINGRIDGE, the newly appointed medical officer of health of the City of London, was born in Islington in 1854 and was educated at Clewer House School, Windsor. In 1872 he entered as a student at St. Bartholomew's Hospital, and in 1875 he entered Christ's College, Cambridge, where he took the degrees of M.A., M.B., D.P.H., and M.D., and subsequently that of LL.M. During the Turco-Servian war in 1876 Dr. Collingridge went to Belgrade as a volunteer surgeon and was the first English surgeon to arrive. He immediately received a commission as surgeon and left for the army before Novi-Bazar, where he engaged in hospital organisation. At the end of the war Dr. Collingridge was decorated by King Milan with the order of the Takova, and on his return home was appointed medical officer of the Port of London. In this capacity he has been engaged for the past 20 years. In 1892 he was appointed as surgeon-major to the command of an experimental company of the new Militia Medical Staff Corps. This company proving successful, the corps was enlarged to eight companies, and subsequently Dr. Collingridge was appointed surgeon-lieutenant-colonel commanding, a post from which he retired in 1900. Dr. Collingridge is an Honorary Associate of the Order of St. John of Jerusalem.

THE LONDON PSYCHO-THERAPEUTIC SOCIETY.

WE have received a circular informing us that at a meeting of medical men and others interested in the study and application of psycho-magnetics, mesmerism, hypnotism, and kindred psychic and mental forces, held at the Frascati Restaurant, London, on April 1st last, it was unanimously decided to establish an organisation under the title of the London Psycho-Therapeutic Society. The society has in view, amongst other objects, the systematic study and investigation of the psychic and mental forces upon such lines as may be considered desirable, and it is hoped to establish central headquarters where the poor may be freed from those diseases especially susceptible to psychic and mental treatment. The society does not propose to be in any way antagonistic to existing scientific and sectarian bodies interested in these subtle forces. Rather it is desired to draw into one society representatives of all the various schools of thought. This is a catholic basis with a vengeance and we cannot help thinking that the gentleman responsible for the first meeting having been held on April 1st was singularly happy in his choice of a date. The idea of medical men, or of any other body of men capable of exercising common sense, meeting on a common platform with the so-called Christian Scientists, with the exponents of the Viavi system, or with osteopathists is too ridiculous for words. We are not unwilling to allow that treatment by hypnotic suggestion may have a certain value when carried out by an honest and properly trained medical man and our review of Dr. Lloyd Tuckey's work upon the subject[1] is a proof of what we say. The debate upon hypnotism at the Edinburgh meeting of the British Medical Association[2] shows that medical men are willing and anxious to study the matter in a scientific manner and we cannot see that another society whose constitution would evidently open the door to fraud of various kinds is necessary.

---

[1] THE LANCET, Nov. 3rd, 1900, p. 1279.

THE STEAMBOAT SERVICES ON THE THAMES.

IT is to be wished that the excellent efforts of the Thames Steamboat Company to place the great river highway at the disposal of the public as a means of getting from place to place will be crowned with success. There can be no doubt that travelling by waterway is healthful, and certainly more so than travelling *sub terra*. The air over the river is always fresh, the constant contact of a breeze with the water in motion tending to keep up a maximum degree of organic purity The prospects of a successful service seem this year to be bright, and a very good start has been made. On May Day a review of the fleet of the company's steamers was held and crowds witnessed the lively and somewhat novel scene from the Thames Embankment. The fleet consists of 36 steamers and it is proposed to run a rapid service of boats between London Bridge and Battersea, while boats will run also to Greenwich and Woolwich, to Kew Gardens, and to Hampton Court. It seems an anachronism that the Thames is not yet a popular or successful waterway, although there is no doubt that a good service of steamers would be a source of convenience to thousands. The whole project is, however, heavily handicapped by the excessive tolls levied at the piers. These tolls should be abolished in the interests of a very large section of the metropolitan public. Such an imposition is fatal to the development of the enterprise and a hindrance to the improvement of the steamers. On every other navigable river of the civilised world the excellence of the appointments of the passenger steamers and the excellence also of their construction and design are well known. The greatest city in the world still leaves much to be desired in regard to its steamboat services on its great historic waterway

STREET NOISES.

SOME little time ago the London County Council passed a by-law to the effect that no one should shout to the annoyance of the public while hawking newspapers. This order was promptly backed by the issue of a circular from the Commissioner of Police stating that the police were instructed to see that the by-law was obeyed During the winter, when there was little or no racing, the streets were fairly quiet, but with the commencement of the flat-racing season the ears of workers are again assailed from the hour of seven o'clock in the morning with the yells of sellers of race cards and newspapers giving racing results or "runners and betting." The police take absolutely no notice. A brain-worker appealed recently to a constable in the Strand and was told that if he pointed out any specific offender the man would be charged at the police court if the complainant was prepared to appear and to give evidence. Now such a method of procedure entirely destroys the value of the by-law. It is not to be expected that, say a literary man or a banker, can leave whatever work he is engaged in, run down sundry flights of stairs as soon as he hears a winner yeller, find a policeman, and, if the yeller has not run away, point him out, ascertain when he will be charged, and again leave his work to go to give evidence. Some little time ago a policeman arrested on his own initiative a newspaper hawker for shouting and the magistrate, Mr. Plowden, inflicted a fine.[3] We cannot see why this procedure should not be universally followed. As we have said over and over again there is no need to shout. The sellers of matches and penny toys do not as a rule shout, nor do the sellers of many newspapers, and it is monstrous that "Winners" and the like should be yelled by hawkers to the unspeakable annoyance of those who have to work with their brains. A few arrests by the police emphasised by a protest signed by dwellers and toilers in our busy thoroughfares would do an immense amount of good.

THE DUTIES OF A MEDICAL OFFICER OF HEALTH.

AS we have so often said, the duties of a medical officer of health are, if properly performed, sure to bring him into conflict with somebody sooner or later. A good instance of this is seen in an incident which occurred at a recent meeting of the Lancaster District Council. Mr. G. R. Parker had in his report to the Health Committee called attention to certain conditions existing at Cockerham Hill Farm of which a gentleman named Colonel Bird is apparently the landlord. According to the *Lancaster Guardian* of April 27th, Mr. Langley, the inspector of nuisances, said that "the statements which Dr Parker had made were quite correct." Colonel Bird, however, characterised Mr. Parker's statements as "absurd, untrue, and incorrect." He also accused him of getting information from "some person who was not connected with the farm" and of making a report upon "what he might call hearsay evidence." Eventually Colonel Bird suggested that the farm should be inspected by members of the council, and this was agreed to We are glad to see that the *Lancaster Guardian* points out that the chairman of the meeting should have made a firmer stand. We have no wish to imply that medical officers of health are always infallible, but it is a scandal that an interested person should be allowed to attack a public official merely for doing his duty. We do not, of course, know how soon after the meeting the members of the council were to examine the farm In any case they will probably find that the grosser evils will have been remedied, but we trust that Colonel Bird will be made to understand that a medical officer of health acts for the benefit of the community and not for that of any one member of it, and, in addition, that for an accused person to defend himself it is not necessary to charge the accuser with lying.

ECHINOCOCCUS CYSTS OF THE DORSAL MUSCLES.

IN the *Gazzetta degli Ospedali e delle Cliniche* of April 21st Dr. Alfredo Baldacci of Pisa gives a lengthy account of a case of this rare condition. The patient was a married woman resident in Pisa and 31 years of age About four years ago she noticed a roundish swelling of the size of a pigeon's egg on her left side in the axillary region in the fifth or sixth intercostal space. It increased in size and in two years was as large as a fowl's egg. After a fall downstairs, in which she bruised her shoulder, the swelling increased more rapidly and in about a month it was of the size of a large apple. On March 5th, 1900, she was admitted into hospital, where the swelling was diagnosed as a chronic abscess (*ascesso freddo*) under the left axilla; 17 ounces of purulent fluid were withdrawn by means of Dieulafoy's aspirator and the patient was discharged on March 25th. The swelling soon returned and a second one made its appearance close beside the first; the patient was re-admitted to hospital on Feb 4th, 1901, and the case was again diagnosed as one of subaxillary chronic abscesses probably due to caries of a rib. On Feb 6th aspiration with Dieulafoy's instrument was again resorted to, but with only partial success, for after 21 ounces of thick purulent fluid were withdrawn the flow ceased entirely, although the swelling remained of considerable size. On Feb. 10th a free incision was made under chloroform and four separate cysts were found. One was of the size of the head of a fœtus at the sixth month and lay between the trapezius, the latissimus dorsi, and the serratus magnus; one, of the size of an apple, lay in the thickness of the trapezius; one, somewhat smaller than the last-mentioned, was between the latissimus dorsi and the lumbo-dorsal aponeurosis; and the fourth, of the size of an egg, was in contact with the intercostal muscles.

---

[2] THE LANCET, August 6th 1898, p. 364.

[3] THE LANCET, July 14th, 1900, p. 120.

THE FATAL GLOVE FIGHT AT THE NATIONAL SPORTING CLUB.

At the inquest held to inquire into the circumstances attending the death of Murray Livingstone, professionally known as "Billy Smith," which was concluded before Mr. John Troutbeck on Monday last, the jury returned a verdict of "Accidental death." The cause of death was proved by a post-mortem examination to be the rupture of one of the cerebral vessels. Every precaution seems to have been taken by the promoters of the competition against accident, the fight was perfectly fair, and both men were properly trained. Accident was the only possible verdict. To quote the words of a witness: "So long as boxing matches are legal there will be accidents," and we can but agree in this opinion. We believe that this is the fourth death which has occurred after boxing competitions at the National Sporting Club since its inception 10 years ago. The curious fact is, that deaths should occur at an institution where every possible care is taken to provide against mishap, whereas boxing competitions take place nightly on brick-paved floors in the roughest environment and no harm occurs. It seems to be simply bad luck that the inevitable toll of lives exacted by a sport of enormously widespread popularity should be exacted in the very place where all precautions are taken.

Dr. Robert Hutchison will give a special course on Foods and Dietetics during the Summer Session, at the London Hospital Medical College. The lectures will be delivered on Wednesdays and Fridays, commencing on Wednesday, May 8th, in the Physiological Theatre. The fee for the course to others than students of the college will be £2 2*s.* and further particulars will be given by Mr. M. Scott, the Warden.

The Medical Society of London will hold a conversazione in the rooms of the society, 11, Chandos-street, Cavendish-square, on Monday, May 20th. Mr. F. Richardson Cross, F.R.C.S., will deliver the Oration, on "Some Landmarks in the Progress of Medical Science," at 8.45 P.M. Previously there will be a reception by the President and subsequently smoking will be permitted to the accompaniment of the "Bijou" Orchestra.

The Committee of Inquiry appointed by the Governors of the National Hospital for the Paralysed and Epileptic held their first meeting on Wednesday last. The committee is constituted as follows: Sir Edward Fry (chairman), Lord Wolverton, Sir W. W. Karslake, Mr. Timothy Holmes, F.R.C.S. and Mr. Cecil Russell, with Mr. J. Danvers Power as honorary secretary. The business of the meeting was of a purely formal character.

An inquest was held last week at Poplar upon the body of a man when a verdict was returned of "Death from lead-poisoning." The medical evidence showed that the man died from intestinal obstruction, presumably of malignant origin. A question will be asked about the matter in the House of Commons, we hear as we go to press, when the public will be placed in possession of the real facts.

Under the presidency of Sir William Broadbent the friends and members of the Medical Graduates' College and Polyclinic held a conversazione on May 1st, at 22, Chenies-street. There was a good attendance, the chief attraction being an interesting lecture by Mr. Jonathan Hutchinson on (*a*) the Retention of the Leaf in Deciduous Trees, and (*b*) the Suppression of the Tusk in Elephants.

The annual meeting and May dinner of the Aberdeen University Club, London, will be held at the Trocadéro Restaurant on Wednesday, May 15th, at 7 P.M. The chair will be taken by Dr J. Mitchell Bruce, and those intending to be present should communicate with the honorary secretaries, Dr. James Galloway and Mr. J. A. Robson, at 54, Harley-street, W.

A telegram from Sir W. F. Hely Hutchinson, the Governor of the Cape of Good Hope, to Mr. Chamberlain, received at the Colonial Office on April 25th, states that for the week ending April 20th there were 64 cases of plague admitted, of which number 17 were Europeans. No fresh cases had occurred among persons under military and naval control.

The Ingleby Lecture of the University of Birmingham will be delivered on Tuesday, May 14th, at 4 o'clock, in the medical lecture theatre of the University, by Dr. William J. Smyly, President of the Glasgow Obstetrical and Gynæcological Society, who has taken for his subject "The Lower Uterine Segment and the Contraction Ring."

The annual dinner of the West London Medico-Chirurgical Society will be held at Frascati's Restaurant, Oxford-street, W., on Wednesday, May 8th, at 7.30 P.M. Further particulars can be obtained from the secretary, Dr. G. P. Shuter, Chiswick-lane, W.

His Majesty the King has graciously consented to become patron of the Middlesex Hospital, a position which Her late Majesty Queen Victoria as well as her predecessors George IV. and William IV. held during the whole of their reigns.

At a meeting of Grand Lodge of English Freemasons held on April 24th at Freemasons' Hall, Bro. Francis Woodhouse Braine, F.R.C.S., was appointed and invested as one of the Senior Grand Deacons.

Queen Alexandra has graciously consented to continue her patronage of the West-End Hospital for Nervous Diseases, Epilepsy, and Paralysis, Welbeck-street, Cavendish-square, W.

The death is announced as having occurred suddenly in London of Dr. John Cavafy, for many years physician to St. George's Hospital.

THE BATTLE OF THE CLUBS.

Lay Medical Institutions.

Dr. Leslie Phillips has addressed a memorial to the General Medical Council pointing out the anomalous position in which medical men stand who are attached to institutions giving medical advice which are either owned or governed by laymen. Shortly, Dr. Phillips's argument is as follows. The Medical Acts of 1858 and 1886 provide that only registered medical men can recover charges for medical services at law. Many institutions are owned by laymen and give medical advice by means of a medical man who is a paid servant. If the patients of these institutions did not pay in advance the proprietors would lose their money, for they themselves could not sue, being unqualified, and if the medical man were to sue the patients would deny that they had ever contracted with him. For laymen to carry on a medical practice in this way is illegal, therefore any medical man who assists in the carrying on of such a practice is acting "not only against the spirit but against the letter of the law." Pay hospitals stand in the same category as medical aid associations. Dr. Phillips implores the General Medical Council to make the holding of such posts as he describes conduct "infamous in a professional respect." Dr. Phillips's view does not seem to us to be *legally sound. Firstly, anybody may practise so long as he* does not give himself out to be a medical man. Secondly, there is nothing illegal in any layman, or combination of laymen, keeping a medical man as their paid servant. The surgeon to a large works or a colliery is in exactly the same position *legally* as are the medical men who were in the service of Mr. Y. and Mr. Z., or of the friendly societies who were referred to in THE LANCET of Jan. 4th, 1898 The illegality theory will never do, and the only method, so far as we can see, of doing away with institutions of the kind mentioned by Dr. Phillips is to make it plain, first, to medical men that it is not nice to be sweated, and second, to patients that it is not for their benefit that they should be attended by an overworked practitioner.

CONTRACT PRACTICE MIDWIFERY FEES.

The Midland Medical Union is at present occupied with the following case. Dr. W. C Rainsbury is surgeon to the Stanton Hill Colliery Club. The contract is for medical and surgical attendance, not including midwifery, and the fee in the past for midwifery has been half a guinea. A few months ago Dr. Rainsbury, in accordance with a resolution of the Midland Medical Union, raised his fee for midwifery to one guinea. After a great deal of discussion and after meetings had been held between the representatives of the colliery club on the one hand and Dr. Rainsbury and the members of the Midland Medical Union on the other, the club refused to give way and Dr. Rainsbury received three months' notice to terminate his appointment as *surgeon to the club. The union is supporting Dr.* Rainsbury in his demand, but at present the wives of colliers are attended by practitioners who are not members of the Midland Medical Union for half a guinea. There is no doubt, in our opinion, that a collier is perfectly well able to pay a guinea as a midwifery fee. The wages of colliers are very good in addition to the fact that they get coal for next to nothing, instead of having to pay 30*s*. or more per ton as others have to do. It is advisable that any medical man who is thinking of applying for this or any other contract appointment in Nottinghamshire or in Derbyshire should before doing so communicate with the secretaries of the Midland Medical Union, Dr. Ernest Houfton, Shirebrook, near Mansfield, or Mr. C. J. Palmer, Mansfield-Woodhouse.

SHIP-BORNE RATS AND PLAGUE.

A MEMORANDUM has been prepared by the medical officer of the Local Government Board with regard to the risk of importing plague into this country by means of plague-infected rats on board ships. In it the steps are detailed which, in the opinion of the Board, should be taken by sanitary authorities of seaports with the view of preventing the introduction of the disease in this way. The Board request that sanitary authorities will instruct their officers to use their best efforts to secure the carrying into effect of the suggestions which the memorandum contains and recommend that a copy of the memorandum should be given to the medical officer of health and another to the inspector of nuisances.

[OFFICIAL COPY]

SHIP-BORNE RATS AND PLAGUE.

In view of the susceptibility of the rat to plague, and of risk therefore [illegible] fected [illegible] event [illegible] oyage [illegible] asures [illegible] d the [illegible] event [illegible] from [illegible] s and hawsers in use for mooring purposes.

2. In the case of vessels that have come from places infected with plague, but on board of which no plague or suspected plague has occurred, strict inquiry should be made on their arrival in port as to [illegible] should be viewed with suspicion and as giving occasion for action similar to that indicated under Paragraph 2.

4 Rats when destroyed on shipboard should not be handled; they should be at once cremated

5. [illegible] being *found to be infected* [illegible] by those animals should, [illegible] vaded by plague should endeavour to secure the destruction of the rats of the town, not least [illegible] warehouses Measures should [illegible] their way on board vessels [illegible] roy all rats on board ships [illegible] of such vessels should be urged to take steps during the ensuing voyage for the destruction of rats that may have remained alive on board their vessels notwithstanding the action of the local authority.

W. H. POWER, Medical Officer.

Local Government Board, Medical Department, April, 1901.

THE ROYAL ACADEMY.

THE Exhibition of the Royal Academy of Arts, which will open to the public on May 7th, gives the visitor the impression that bad times, the war, and the general depression have affected artists, for this exhibition is curiously dull. There are, however, not so many pictures dealing with the war or with the last days of Her Majesty the late Queen as might have been expected. M. Benjamin Constant's picture of the Queen (149) occupies the wall at the end of Gallery No. III., being surrounded by drapery of blue and crêpe. She is sitting in a chair of state in a Gothic chamber, presumably the House of Lords, with a curiously stagy effect of light falling across her. Mr. Wyllie in "The Passing of a Great Queen" (272) shows the little *Victoria and Albert* with her escort of torpedo boats passing down the Solent through the sentinel lines of warships. In the sculpture room is a model (1711) of a memorial to the late Queen to be erected in Manchester. In its present situation it looks, of course, much too big.

The most impressive work in the exhibition is Mr. Sargent's portrait of the two Misses Wertheimer. The one is dressed in crimson velvet and the other in white satin. The picture is so far above any other in the whole exhibition, even including other works by the same artist, that we need say no more than that it is a worthy companion to the portrait of the ladies' father which Mr. Sargent exhibited in 1898 Of medical portraits, that of Dr P. H. Pye-Smith (525), by Mr. H. J. Draper, should be noticed both as an admirable likeness and a clever study of blacks. In the Lecture Room is a bust (1733) of Dr. Isambard Owen by Mr. W Goscombe John, and a medal by Mr. C. J. Allen, the obverse of the Kanthack memorial medal (1746). This is a departure from the ordinary form of medal in that the head and inscription are within a vesica. Mr. Thomas Brock shows the presentation bust of the late Mr. Henry Lee, F R.C S, which is to be placed in the Royal College of Surgeons of England. Of figure pictures the "Venusberg" (794), by the Hon. John Collier, and "When Land and Water Kiss" (845), by Mr. H. J Draper show a good knowledge of anatomical drawing and modelling. To pass to other pictures Mr. La Thangue's landscapes are, *as always, a pleasure to the eye especially.* "On Lavington Down" (22), Mr. Waterhouse's "Mermaid" (138) a diploma work, and "Nymphs finding the Head of Orpheus" (231), are good examples of beautiful colour. Mr. Byam Shaw in "The Boer War" (241) has deserted his usual mediæval mysticism and shown us a modern woman standing by a stream. The wealth of detail in the willows, foxgloves, and loosestrife recalls to some extent the "Ophelia" of Millais. Of other landscapes we must mention (638) a view of "Bellagio from Cadenabbia," by Sir Henry Thompson, F.R C S., who has deserted his usual *medium of water-colour for that of oil.* Mr Ridley Corbet has a charming view of the Val d'Arno (863), and Mr. Albert Goodwin, besides his "Rye" (983), has a beautiful fantasy, "Sindbad the Sailor in the Harbour of Salahut" (784), and his two other pictures (53 and 438), which like all this master's work, should by no means be passed over. We must not forget Mr. Melton Fisher's "Lady

Welby" (367), which is characterised by all his delicacy of handling, and among the sculpture Mr. J. M. Swan's bronze group, "Puma and Macaw," is a wonderful example of stealthy motion.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

An ordinary meeting of the Comitia was held on April 25th, Sir William Selby Church, the President, being in the chair.

The following gentlemen, having passed the required examination, were balloted for, and having been elected were admitted as Members:—Francis Robert Bryant Bisshopp, M.A., M.D. Camb.; Frank Cecil Eve, B.A., M.B. Camb.; Archibald Gordon Gullan, M.D. Lond., L.R.C.P.; Edward Forster Maynard, M.D. Edin.; Nathan Raw, M.D. Durh.; Charles Henry Reissmann, M.A., M.B. Camb., L.R.C.P.; and Reginald Cecil Bligh Wall, B.A., M.B. Oxon., L.R.C.P.

Licences to practise were granted to 96 gentlemen who had passed the necessary examinations.

A communication was received from the Secretary of the Royal College of Surgeons of England reporting certain proceedings of the Council on April 11th.

The following Members were nominated by the Council and proposed to the College for election to the Fellowship, and after a ballot had been taken were all duly announced to have been elected: William Burns Beatson, M.D. St. And. (Eastbourne); Arthur Hamilton Nicholson Lewers, M.D. Lond.; John Walter Carr, M.D. Lond.; William Joseph Tyson, M.D. Durh. (Folkestone); Edmund Hobhouse, M.D. Oxon. (Brighton); William Rivers Pollock, M.D. Camb.; Hugh Walsham, M.D. Camb.; Walter Sydney Lazarus-Barlow, M.D. Camb.; Edmond Fauriel Trevelyan, M.D. Lond. (Leeds); John Hannah Drysdale, M.D. Camb.; Frederick Eustace Batten, M.D. Camb.; Raymond Henry Payne Crawfurd, M.D. Oxon.; John Henry Bryant, M.D. Lond.; and George Frederic Still, M.D. Camb.

A report, dated March 11th, was received from the Committee of Management. Amongst other matters the announcement was made that the Blackburn Technical College had been added to the list of institutions recognised for instruction in chemistry, physics, and practical chemistry.

A report was received, dated March 8th, from the Laboratories Committee recording the general work of the laboratories and of the bacteriological department, and announcing that Dr. T. Grigor Brodie had been appointed director of the laboratories for another year. The report was adopted.

The quarterly reports of the Finance Committee and of the examiners for the licence were received and adopted.

The Registrar moved that By-law CXLV. be amended in the manner of which notice had been given at the preceding Comitia. This was carried.

A list of books and other publications which had been presented to the library during the past quarter was received and the thanks of the College were given to the donors.

It was announced that the subject of the Bradshaw lecture to be delivered by Dr. Judson Bury would be "Prognosis in Relation to Disease of the Nervous System."

The President then dissolved the Comitia.

Church Missionary Society.—The annual meeting of the friends of the medical mission auxiliary of this society was held at Exeter Hall, London, on April 30th, when Sir John Kennaway presided. Dr. Herbert H. Lankester, the secretary, reported that during the year the beds in the society's hospitals had increased from 1484 to 1613; the in-patients from 11,400 to 11,887; and the out-patients from 630,000 to 753,000. A medical training home for ladies had this year been opened in Bermondsey. The income of the auxiliary had risen from £10,600 to £12,930, besides £2737 brought forward and £3797 from the Centenary Fund. The expenditure had been £17,962, but the debit balance was only £484. The committee had undertaken to maintain all the society's medical missionaries, and this would mean an increase of £5000 a year in financial liability.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Cambridge Urban District.—An outbreak of diphtheria occurred in this and the adjoining district of Chesterton during the autumn of 1900, and although there was nothing of an exceptional character about the outbreak certain of the methods adopted with a view to control it were conceived and carried out in a commendably modern spirit. The outbreak, which embraced 62 cases and which was mainly connected with the Park-street Infant School, commenced on Oct. 14th and lasted until Nov. 15th. With respect, however, to the precise number of cases Dr. Bushell Anningson, the medical officer of health, observes that some cases were notified on clinical symptoms alone, notwithstanding the fact that the specific bacillus was not found in the throat, while others were notified upon the discovery of the specific bacillus alone even if no clinical symptoms were present. In other cases, however, the diagnosis was supported both clinically and bacteriologically. Evidence as to the precise cause of the outbreak is not forthcoming, but a thesis of unrecognised cases operating in a school affords a substantial solution of the difficulty. Moreover, the sanitary condition of the closets and urinals was unsatisfactory and may have brought about a state of the fauces susceptible to the operations of the bacillus of diphtheria. As regards preventive measures, Professor Sims Woodhead was appointed consulting bacteriologist, and the invaded school was closed. Isolation accommodation was provided separately both for cases of actual diphtheria and for cases in which the bacilli of the disease alone had been found. Moreover—and here we have the up-to-date nature of the prophylactic measures—the infants who had been attending the invaded school were visited at their homes, a bacteriological examination was made in each case, and a prophylactic injection of antitoxin was offered not only to the infants but also to their younger brothers and sisters. It is of considerable interest to learn that the offer was, as a rule, accepted, and such acceptance does great credit to the tact of those whose duty it was to make the offer. But the liberality of the Cambridge Corporation did not stop here, as the medical practitioners of the borough were afforded a gratuitous supply of antitoxin and facilities for obtaining a bacteriological examination of any suspicious cases under their care. Good results appear to have followed the use of antitoxin in the case of children who had attended the invaded schools, and consequently the corporation instituted a public injecting station at the Corn Exchange whereat all parents whose children had been exposed to infection were at liberty to have them treated with antitoxin free of charge. As regards the bacteriological aspects of the outbreak, Dr. Anningson reports that a total of 650 persons had their throats examined, and of this number 33 yielded the bacillus of the first degree of virulence and 157 that of the second degree. The remainder gave negative results. Dr. Anningson is to be cordially congratulated upon the comprehensive and modern measures which were taken in Cambridge to stay the outbreak, and it is clear, as indeed he fully recognises, that all the parties concerned must have worked with a remarkable unanimity.

Middlesbrough Urban District.—This borough has for the last five years suffered severely from pneumonia of a definitely infective type and it will be remembered that Middlesbrough was the scene of the historical outbreak of epidemic pneumonia which took place in 1888 and which was investigated by Ballard and Klein. At that time there were 388 deaths. Klein found a bacillus which he called "bacillus pneumoniæ," the inoculation of which into mice gave rise to a disease in which pneumonia was a very prominent symptom. This same bacillus was found in certain samples of bacon, and mice fed thereon developed pneumonia and yielded the bacillus pneumoniæ. During 1900—the estimated population being 97,007—there were no less than 543 deaths from pneumonia, the annual numbers since 1896 having been 275, 265, 225, and 397. It has, however, to be remarked as having a bearing upon the figures for 1900 that in May of that year the Town

Council made pneumonia a voluntarily notifiable disease, although it appears that the stress of the 1900 outbreak was over before notification commenced. The number of cases notified since May was 187—i.e., 138 males and 49 females. Of the total of 187 no less than 71 died—a fatality rate of 37·9—which was much in excess of that which obtained in 1888. As in 1888, males were more liable to attack than females. The bacteriological portion of the investigation was performed by Mr. Alexander Foulerton, who was unable to discover the presence of the diplococcus pneumoniæ in any of the cases, but he is inclined to regard an organism which he names "Middlesbrough bacillus No. 2" as having played an important part in the outbreak. In the words of Mr. Foulerton, "this 'Middlesbrough bacillus No. 2' proved to be identical in every way with what is *recognised as bacillus coli communis* and appeared to be quite normal in type." With regard to the bacteriological aspect of the question, Dr. Charles V. Dingle, the medical officer of health of Middlesbrough, observes: "The results obtained cannot be said to be conclusive proof that the above bacillus is the only cause of the excessive pneumonia met with in this borough, and it is hoped that further and more conclusive evidence will be obtained in future." As matters stand the bacteriology of epidemic pneumonia must be regarded as being in a somewhat evolutionary phase. As far as we can gather the results of Mr. Foulerton's investigations agree with Klein's in that in no case was Friedländer's or Fränkel's pneumococcus discovered, but we are not told whether "Middlesbrough bacillus No. 2" is claimed to be identical with Klein's bacillus pneumoniæ.

Stoke-upon-Trent Urban District.—Dr. G. Petgrave Johnson reports that during 1900 there were two deaths in this district from the consumption of veal. This meat, procured *on a certain Saturday, was stuffed with herb and eaten* hot on the following Sunday at the midday meal. At supper on the same day nine persons partook of the cold meat and one additional person abstained. The next day seven of the nine veal-eaters were attacked with vomiting, diarrhœa, and abdominal pains. On the evening of the same day a visitor had a piece of the same cold veal and was ill on the day following. The history of the veal was inquired into and it appears that none of the other eaters of meat from the same calf were taken ill. Dr. Johnson thinks that the meat was contaminated after it had been cooked, seeing that those who ate the hot meat were not attacked. It does not seem that any bacteriological or inoculation experiments were made, and this, under the circumstances, is to be regretted. Cases of this nature, investigated in a bacteriological sense quite early, are likely to lead to instructive results, as has been shown by Durham and others. The borough of Stoke-upon-Trent is without a disinfecting apparatus, and therefore, as the medical officer of health remarks, it has been impossible to disinfect any infected clothing or bedding. In 1886 Dr. Barry of the Local Government Board advised such an apparatus, and the medical officer of health has frequently reported in the same strain, but the district council has remained obdurate

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6671 births and 4047 deaths were registered during the week ending April 27th. The annual rate of mortality in these towns, which had been 19·2, 19·2, and 18·4 per 1000 in the three preceding weeks, further declined to 17·9 per 1000 last week. In London the death-rate was 17·4 per 1000, while it averaged 18·2 per 1000 in the 32 large provincial towns. The lowest death-rates in these towns were 10·3 in West Ham, 11·4 in Derby, 11·7 in Brighton, and 11·8 in Birkenhead; the highest rates were 22·8 in Liverpool, 24·4 in Halifax, 24·8 in Bolton, and 26·1 in Plymouth. The 4047 deaths in these towns included 363 which were referred to the principal zymotic diseases, against 397 and 346 in the two preceding weeks; of these, 122 resulted from whooping-cough, 101 from measles, 48 from diphtheria, 36 from diarrhœal diseases, 30 from scarlet fever, and 26 from "fever" (principally enteric). No death from any of these diseases was registered last week in Burnley; in the other towns they caused the lowest death-rates in Croydon, Plymouth, Norwich, Derby, Birkenhead, and Huddersfield, and the highest rates in Bolton, Salford, Blackburn, and Sunderland. The greatest mortality from measles occurred in Wolverhampton, Bolton, Sunderland, and Gateshead; from scarlet fever in Preston; from whooping-cough in Bristol, Cardiff, Swansea, Bradford, and Sunderland; and from "fever" in Blackburn and Sunderland. The 48 deaths from diphtheria included 20 in London, four in Salford, four in Leeds, and three in Liverpool. No fatal case of small-pox was registered in any of the 33 large towns; and no small-pox patients were under treatment in any of the Metropolitan Asylums hospitals during last week. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 1522, against 1601 and 1526 on the two preceding Saturdays; 198 new cases were admitted during the week, against 160, 205, and 150 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 345 and 374 in the two preceding weeks, decreased again last week to 286, and were 71 below the corrected average. The causes of 46, or 1·1 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Norwich, Nottingham, Salford, Bradford, and seven other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Blackburn, Halifax, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 24·1, 23·2, and 23·0 per 1000 in the three preceding weeks, further declined to 22·9 per 1000 during the week ending April 27th, but showed an excess of 5·0 per 1000 over the mean rate during the same period in the 33 large English towns. *The rates in the eight Scotch towns* ranged from 11·8 in Perth and 18·8 in Dundee to 23·7 in Glasgow and 24·5 in Edinburgh. The 717 deaths in these towns included 62 which were referred to whooping-cough, 25 to measles, 13 to diarrhœa, eight to scarlet fever, five to "fever," four to diphtheria, and three to small-pox. In all, 120 deaths resulted from these principal zymotic diseases last week, against 95 and 117 in the two preceding weeks. These 120 deaths were equal to an annual rate of 3·8 per 1000, which was 2·2 per 1000 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of whooping-cough, which had been 51 and 56 in the two preceding weeks, further rose last week to 62, of which 34 occurred in Glasgow, 18 in Edinburgh, five in Dundee, and four in Paisley. The deaths from measles, which had been 16, 17, and 21 in the three preceding weeks, further rose to 25 last week, and included seven in Glasgow, seven in Leith, six in Edinburgh, three in Paisley, and two in Greenock. The fatal cases of diarrhœa, which had been eight, 13, and 23 in the three preceding weeks, declined again last week to 13, of which seven were registered in Glasgow, three in Dundee, and two in Aberdeen. The deaths from scarlet fever, which had been three and two in the two preceding weeks, rose again to eight last week, and included four in Glasgow. *The fatal cases of "fever," which had* been one and four in the two preceding weeks, further rose last week to five, of which three occurred in Glasgow, where two of the four deaths from diphtheria were also registered. The fatal cases of small pox, which had been five, six, and 10 in the three preceding weeks, declined again last week to three, and all occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had increased from 155 and 130 in the two preceding weeks, rose again last week to 179, and showed an excess of 38 over the number in the corresponding period of last year. The causes of 36, or more than 5 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 35·6 and 35·4 per 1000 in the two preceding weeks, further declined to 29·4 during the week ending April 27th. During the past four weeks the death-rate in the city has averaged 33·1 per 1000, the rates during the same period being 17·7 in London and 23·2 in Edinburgh. The 195 deaths of persons belonging to Dublin registered during the week under notice were 40 less than the number in the preceding week, and included 10 which were referred to the principal zymotic diseases, against 12, 15, and 18 in the three preceding weeks; of these, eight resulted from whooping-cough, one from scarlet fever, and one from "fever." These 10 deaths were equal to an annual rate of 1·5 per 1000, the zymotic death-rate during the same period being 1·6 in London and 4·4 in Edinburgh. The fatal cases of whooping-cough, which had been five, eight, and nine in the three preceding weeks, declined again last week to eight. The mortality both from scarlet fever and from "fever" showed a decline from that recorded in the preceding week. The 195 deaths in Dublin last week included 27 of children under one year of age and 56 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons showed a slight decrease from the respective numbers registered in the preceding week. Six inquest cases and four deaths from violence were registered; and 61, or nearly one-third, of the deaths occurred in public institutions. The causes of six, or more than 3 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Fleet Surgeon W. E. Breton to the *President* for a three months' course of hospital study. Staff Surgeons: V. G. Thorpe, to the *Centurion* for service with the Marines at Wei-hai-wei, and P E. Maitland to the *Argonaut*. Surgeons: J G. Corry to the *Niobe;* J. W. Craig to the *Northampton* for the *Calliope*; T. W Kemp to Bermuda Hospital; E. O. B. Carbery to the *Jackal;* W. R. Knightley to the *Duke of Wellington*, for disposal; J. H. Fergusson to the *Harrier;* A. G. W Bowen to the *Beagle;* H. E. Tomlinson to the Plymouth Division, R.M.L.I, and Civil Practitioner W. Martin to be Surgeon and Agent at Port Muck.

ROYAL ARMY MEDICAL CORPS.

Major G. Brazier-Creagh joins at Woolwich. Major A. M. Davies is ordered to join the Home District for duty. Major A. Dodd has joined at Aldershot for duty at the Cambridge Hospital. Captain H. A. Stalkartt is appointed for duty in the Scottish district.

The undermentioned Lieutenant-Colonels, whose promotions were notified in the *London Gazette* of March 29th, 1901, take precedence next below Lieutenant-Colonel W. C. T. Poole: Richard Edward Ricketts Morse, Richard Henry Stewart Sawyer, and Richard Charles Kirby Laffan.

Lieutenant-Colonel Arthur Bowdich Cottell retires on retired pay. Colonel Charles Fleetwood Churchill is placed on retired pay. Lieutenant-Colonel Robert Talbot Beamish is placed on retired pay.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Captain W. K. Bullmore having resigned his Volunteer appointment, ceases to belong to the Army Medical Reserve of Officers. Surgeon-Lieutenant Herbert Fox, 2nd Hampshire Volunteer Artillery, to be Surgeon-Lieutenant.

INDIA AND THE INDIAN MEDICAL SERVICES.

The King has approved of the following promotions among the officers of the Indian Medical Service:—Lieutenants to be Captains: Thomas Henry Delany, John Walter Forbes Rait, Stewart Ranken Douglas, Eugene John O'Meara, Godfrey Tate, Roy Fearon Baird, Andrew Thomas Gage, George Campbell Laing, George McPherson, Spencer Hunt, Alfred George Sargent, Walter Hulbert Cox, De Vere Condon, Henry Albert John Gidney, Henry Kirkpatrick, Frederick Durand Stirling Fayrer, Padmabar Krishna Chitale, and William Lethbridge. The King has also approved of the transfer to the half-pay list of Major William Grant Thorold and Captain Hugh Bixby Luard. The King has also approved of the retirement from the service of Lieutenant-Colonel Percy de Haga Haig and Lieutenant-Colonel Edward Palmer.

VOLUNTEER CORPS.

Artillery: 1st Hampshire (Southern Division Royal Garrison Artillery): Alexander Arthur MacKeith to be Surgeon-Lieutenant. *Rifle:* 1st Volunteer Battalion the Dorsetshire Regiment: Surgeon-Captain A. Emson resigns his commission.

VOLUNTEER MEDICAL STAFF CORPS.

The Woolwich Companies: The undermentioned gentlemen to be Surgeon-Lieutenants: Charles Theodore William Hirsch and Ernest Blair Dowsett.

SOUTH AFRICAN WAR NOTES.

Major Cummins, R.A.M.C., Lieutenant Taylor, R.A.M.C., and Civil Surgeons Edwards, Hinde, Gardner, and Baskin are returning home in the s s. *Montrose.*

Civil Surgeon George Sowden is reported to be suffering seriously from enteric fever (Beaufort, April 21st).

A final meeting of the committee of the Portland Hospital was held on April 27th, when the printed report which had been compiled by a sub-committee was approved. It was resolved that a copy should be presented to each subscriber and that any officer or soldier who had been a patient in the hospital should have the privilege of purchasing a copy at cost price, 3*s.*, on application to the secretary, Major General the Hon. H. F. Eaton, 43, Upper Grosvenor-street, W.

The Imperial Yeomanry Hospital at Deelfontein has now been taken over by the Government.

RECRUITING.

The annual report of the Inspector-General of Recruiting, which has just been issued, shows that the total result of recruiting for the past year amounted to 49,260 men for the regular forces and 37,853 for the militia. The proportion of well-educated men who enlisted in the army during the past five years has risen from 69 to 83 per 1000. It is from this class that the best non-commissioned officers are drawn A considerable number of men are always forthcoming in time of war, as in the case of that in South Africa, for temporary service in an emergency. The highest number of recruits raised for the regular army since the introduction of the short-service system, we learn from the report, was 42,700, obtained in 1899, but that number was more than doubled last year. But the problem that has to be solved is how a sufficient number of recruits are to be obtained in the absence of this war fever, and especially for the maintenance of the increased establishment of the regular army in time of peace. There is no end to the suggestions that have been made for popularising the army and for attracting young men into it without incurring the great outlay which would be entailed by increasing the soldiers' pay so that the army should offer as good a wage as can be had in other sources of labour in civil life outside it. This question of pay is, no doubt, and always has been, one of the radical difficulties in the matter. But it is not everything. In this age of advertising there is not sufficient done to attract men into the army. Our recruiting depôts do not occupy sufficiently public and prominent positions nor are the buildings used for the purpose of the right kind. Buildings intended for recruiting purposes should occupy sites in good open thoroughfares and not be hidden away in back streets and they should be of a superior description to those now provided. Any intending army recruit should have every facility for obtaining all the information he requires at such places. Judging from all that we have heard we should say that the disinclination to enlistment commonly arises from a feeling that the soldier has to forfeit his liberty and that, apart from drills, he has to subject himself to a number of irksome disciplinary details many of which seem to him unnecessary. The young soldier of the present day does not care to be treated like an overgrown schoolboy; he wants greater personal freedom and fewer restrictions than are imposed by our traditional military system. Moreover, the soldier is not satisfied with the system of military stoppages to which he is subjected and we believe that he does not so much desire to have cubicles introduced into barrack rooms as to have these rooms better warmed and lighted in winter and to have more comfortable bath-rooms with warm water laid on.

AHMEDNAGAR.

A good deal of objection has been taken to Ahmednagar as a station for the occupation of Boer prisoners transferred from South Africa to India on the ground of its alleged unhealthiness. Ahmednagar is pretty well known as one of the best and most salubrious stations in the Bombay Presidency. It is situated on the high tableland of the Deccan, and has an excellent climate. To compare Ahmednagar to a sort of Devil's Island to which Dreyfus was banished, as we have somewhere seen done, is absurd. The medical history of the European troops stationed at

Ahmednagar has been satisfactory. We believe that in 1898-99 there were some complaints regarding the water-supply, which has no doubt been since remedied. It is possible, of course, that typhoid fever is not an unknown disease there, but then it would not, unhappily, be easy to name offhand a military station in India or a hill station to which our troops are sent for health that had always been free from enteric fever. And the same thing may be said of South Africa, for we have all had bitter experience during this war of the havoc which this fever has caused among our troops serving there.

IMPROVED MILITARY AMBULANCES.

The present type of military ambulance was condemned by the Royal Commissioners who reported on the care and treatment of the wounded in the South African war, and as a consequence the Master of the Worshipful Company of Coachmakers, who is a colonel in the Honourable Artillery Company, recently offered three prizes for improved designs in ambulances, the principal objects being to reduce the weight and at the same time to increase the ease of carrying and the capacity. The competition has proved most successful and the judges, who have been assisted by an aide-de-camp to Lord Roberts, have awarded the first and second prizes to Messrs. Atkinson and Philipson, carriage manufacturers, Newcastle. One of their draughtsmen, Mr. Terry, gained the first prize, Mr. John Philipson won the second, while the third went to Mr. Butler of the London Polytechnic Carriage Building Class. The drawings can be seen at the Baker-street Carriage Bazaar.

LEAN'S ROYAL NAVY LIST.

The ninety-fourth quarterly issue of this excellent publication, containing information with regard to the war and meritorious services of officers in the Royal Navy, names of famous battleships, dates of all commissions, dates of all retirements, lists of Royal Orders, medals, decorations, honours, &c., Gazette accounts of the Victoria Cross, names of recipients of the Albert Medal, and the societies' medals; dates of birth of flag officers, captains, and officers of Royal Marines; lists of Fellows of the learned societies, private appointments held by retired officers; the causes of special promotion, prizes, and examinations passed, with the relative army rank and time of compulsory retirement, at head of each rank; lists of ships building, &c., has just been issued. The present issue contains a reproduction from an original drawing of Queen Victoria by Paul Raphael Montford. Messrs. Witherby and Co., 326, High Holborn, and 4, Newman's-court, are the publishers.

"SELF-AID IN WAR."

Surgeon-Major T. F. S. Caverhill, of the Lothians and Berwickshire Yeomanry Cavalry, has just issued under this title, at the price of 1*s.*, an enlarged edition of a little book which should prove useful to the private soldier and to the regimental stretcher-bearer. It has special application to cavalry and mounted infantry. The publishers are Messrs. Williams and Norgate of London and Oxford.

ROYAL NAVAL SUPPLEMENTAL FUND.

At the quarterly meeting of the directors of the Naval Medical Supplemental Fund, held on April 16th Sir J. N Dick, K.C.B., being in the chair, the sum of £63 was distributed among the several applicants.

THE AFTER-CARE ASSOCIATION.—The report of the council of this association for 1900 states that the past year has been a most encouraging one. The number of poor persons discharged recovered from asylums for the insane dealt with by the association are as follows. During the past 12 months there were 195 cases before the council—not quite so many as in 1899 but the number successfully helped was greater in this than in any previous year. Of these 132 were women and 63 were men. Many have been assisted as in the past by being boarded out in cottages in the country, by grants of money and clothing, by finding them occupation, and in other ways as the council have thought best. Others have had to be declined as it was thought after most careful consideration that they would never again be fit for the struggle of life. The total amount of subscriptions and donations for maintenance in 1900 came to £540 13*s.* 11*d* In 1899 they were £549 8*s.* 1*d.* Communications should be addressed to the Secretary, Church House, Dean's-yard, Westminster.

Correspondence.

"Audi alteram partem."

"REORGANISATION OF THE ARMY MEDICAL SERVICE."

To the Editors of THE LANCET.

SIRS,—I am, of course, quite aware that the highest qualification for planning reforms in the Army Medical Department is to be either a civil surgeon with comparatively small experience in matters military or a combatant officer with no experience in matters medical. Nevertheless, I would suggest that it might be worth while to pretend to think that the members of the Royal Army Medical Corps are themselves qualified to form useful opinions about their own concerns. I am, I need scarcely explain, not so foolish as to really think they are.

This proposal may have increased weight if I prove at once that they emanate from a person without bias in favour of the army medical officer. What is that gentleman? In the first place, he is one who has craved for and got such titles as "Colonel" and "Captain," "with the hope of being mistaken for" that which he is not. "Navalis," a few days ago, pointed out in the *Times* this motive in reference specially to naval engineers, but it is evident he regards as being "in the same boat" all non-combatants who wish to have the titles supposed (erroneously) to belong only to combatants. Now the frequent letters of "Navalis" to the *Times* always appear in the largest print. Their intrinsic merits are inferior to those of most of the letters which that journal presents in small print It is certain, therefore, that he is a man of position who would, of course, judge in a generous and gentlemanly spirit of the motives of other people. Analogous views used to be held, perhaps are still held, by many combatant military officers about military titles for the Royal Army Medical Corps. It is obvious, therefore, that the army doctor is a snob—a person who has assumed certain titles "in order that he may be mistaken for something else."

Secondly, owing to the absence of competition, medical men who enter the army are of inferior knowledge, industry, and capacity. This deduction and this assertion have been made so often that they must be true. In confirmation of the above views I can give my personal experience at the Post graduate College of the West London Hospital. Of late years dozens of medical officers of the Army and Indian Medical Service have attended there. I have found them quite different from the truthful sketch I have just given. If one exception prove a rule, in the remarkable case of the Royal Army Medical Corps in which all the individuals appear to be exceptions, the rule must be proved to absolute demonstration—this said rule being that the army medical officer is a snob and an incompetent, idle fellow.

What I advocate is that we should dissemble, that we should make a pretence of *attaching weight to his own ideas of how to improve himself, and then urge the Government and others to help to develop these ideas.* The true ideas of the army medical officer may be inferred from his conduct. He is constantly seen by us behaving as follows. If he has the opportunity he spends a portion of his time diligently attending a post graduate hospital, working much in the same way as if he were a third-year student. He is not only ready, but eager, to hold a limb, to retract, or to sponge. He is often of high rank, and at first I felt it rather odd to be directing "Colonel" this or "Major" that in student's duties. But his zeal and good manners soon banished that feeling and I now simply have a higher respect for military titles than I ever had before

The army medical officer's view is that he needs courses of practical work in civil hospitals, and especially in those which grant him a recognised position and duties and where there are no unqualified students for him to interfere with. He follows out this view with a modesty which contrasts agreeably with the tone of those who patronise him and of those who libel him It will be remembered that a Member alleged in Parliament that the three principal medical officers in Natal had done no good work because they had been so absorbed in strutting about enjoying their military titles. Sir Redvers Buller himself repelled this slander. One of the three Royal Army Medical Corps colonels thus libelled used, while stationed at Aldershot in 1899, to come to the West London Hospital and work in the manner I have sketched above, and that in spite of the long railway journey. Such men deserve that their own modes of improving themselves should be assisted and developed. This policy could be carried out at the West London Hospital. With encouragement and financial assistance from Government that institution could easily be doubled in size. The two senior assistant physicians and the two assistant surgeons could be promoted to the full staff and no more *civilian* assistant physicians or surgeons be elected. The duties they perform at present should be intrusted to selected men from the Royal Army Medical Corps, each appointed for 12 months, for six as junior and for six as senior. The duties of such a military assistant surgeon would be as follow. During his six months as junior he would assist his surgeon at operations, diligently follow his practice, and on two days a week attend out-patient practice. During his six months as senior he would take charge of out-patients on one day a week and be allowed himself to perform major operations of which he would get a considerable number. But as he would only have this responsible work for six months it should be performed under the superintendence of the permanent surgeon. I do not mean the actual eye of the surgeon. I will give a concrete example. Suppose my military assistant surgeon wished to operate for a strangulated inguinal hernia or to perform an amputation through the knee I should consent; but if he asked me to authorise him to attempt the removal of a calculus from the common bile-duct I should consider what previous experience he had had of such surgery and probably end by taking that case myself and giving him a more suitable one in exchange. But my experience of military post-graduates is that what they generally require in civil hospitals is not snubbing but encouragement. So also there should be a permanent civil out-patient physician and out-patient surgeon who should attend five afternoons a week and be ready for consultation. They should be paid for this work. But their chief inducement would be that each would stand first for the next vacancy for physician or surgeon. The first to fill these offices would be the present juniors.

With regard to expense the management would not need complete endowment from Government, but *backing up*. Hospital beds in London, to a great extent, support themselves. In this way 10 military assistant physicians and 10 military assistant surgeons would pass through a hospital of 320 beds every year—i.e., 200 every 10 years; and there would besides be room for a number of clinical clerks and dressers. It is true that no one can be a good practical physician, still less a good practical surgeon, who has not *recently* been engaged in practising his art. Still, it would be a gain to the Army Medical Department to have available 50 or 60 picked men who had each of them less than two or three years previously spent a year as assistant surgeon in a metropolitan hospital.

I am, Sirs, yours faithfully,

Grosvenor-street, W., April 30th, 1901. C. B. KEETLEY.

To the Editors of THE LANCET.

SIRS,—I have read with interest the article in THE LANCET of April 27th, p. 1224, on the reorganisation of the Army Medical Service. The main point, however, is to get the men. If that is done many of the reforms you suggest will come of themselves. There are three things which attract men to enter a public service—honour, power, and pay. Given the first two and the third may be comparatively very small. At present all three are lacking, so is it wonderful that candidates are lacking also? There seems to me to be a very good reason why the *first two—viz., honour* and *power*—are not accorded with as free a hand as might be to the army medical officer. The combatant officer cannot get out of his head that the army surgeon is simply a civilian in uniform. Can this defect—granted that it is a defect, and I think it is—be remedied? I think it can. Let there be an army medical school to be entered in the same way as Woolwich or Sandhurst is entered, by a competitive examination in arts, and let this school undertake the military and medical training of its students. Let the school be in London, Edinburgh, or where you will, and let the examinations, which, of course, must be such as are recognised by the General Medical Council, be what you will; let the students include the navy and the Indian Medical Service or not, as you please; let it be attached to a large hospital or have its own teaching staff—these, as well as many other points, would require far more space than I can venture to trespass on, but let the students be under military discipline from the very first—that is the point which I wish to emphasise. On becoming legally qualified I would grant them commissions and second a certain number for the purpose of taking up house surgeoncies or while reading for higher examinations. Thus officers would not lose seniority by zeal for their profession.

I have not gone into the question of expense or how much of it should be borne by the student, how much by the State. That, again, is, I think, a matter of detail, but I feel sure that if some such college were started you would get the right sort of candidate to enter it—viz., the student whose ambition it was to be an army medical officer—not, as now often happens, the qualified man who enters the army for want of something better to do.

I am, Sirs, yours faithfully,

April 28th, 1901. R.A.M.C.

"POST-PARTUM HÆMORRHAGE."

To the Editors of THE LANCET.

SIRS,—I, in common, no doubt, with very many other general practitioners, have read Mr. E. Stanmore Bishop's lecture on post-partum hæmorrhage in THE LANCET of April 13th, p. 1069, with great delight, and the result has been that we doubtless shall attempt aortic compression in a like emergency, not as a last resource, but as an adjuvant to other remedies mentioned in text-books. Mr. Bishop quotes Cazeaux, who, I gather from his lecture, thinks somewhat lightly of this means of arresting hæmorrhage. I turned to my Cazeaux ("Traité Théorique et Pratique de l'Art des Accouchements," Paris, 1856), and on pages 932, 933, and 934 I found a totally different statement with regard to the employment of aortic compression. I was so struck with it that I translated the pages mentioned, and I now forward the translation on to you. I will not say that the translation is good, but I think it is fairly correct, and one can see from it that Cazeaux had ideas with regard to aortic compression in 1856 which are not very far removed from those of Mr. Bishop, allowing, of course, for the increase of general scientific knowledge since then. The objections to aortic compression you will see were made by others, and Cazeaux, in my opinion, gives a complete answer to them. You will notice that there is no mention of the faradaic current or of any styptic solution or injection, and they are not even mentioned at all in this edition, as the author, after saying that opium has been suggested by English writers to cause contraction, and after rejecting the idea and having spoken about ergot and been strongly in favour of its use, passes on to transfusion of blood (pp. 934, 935). On one point he differs from Mr. Bishop—all his efforts are for contraction of the uterus, but still he approaches him again when he advises aortic compression lasting for some time, in order that the brain and spinal cord may have enough blood to keep the heart and respiration going. What I should like to know is whether a good old book, such as my 1856 edition certainly is, has been brought up to date and completely spoilt. Hoping you will be able to find space for this somewhat lengthy letter, I am, Sirs, yours faithfully,

ALFRED HUNTSMAN, L.S.A.

St. John's-road, Upper Holloway, N., April 26th, 1901.

TRANSLATION.

M. d'Ornellas has lately sustained a thesis on aortic compression employed in uterine losses. He brings forward many observations as to its application. M. Baudelocque himself has assured me that he has several times succeeded in stopping losses, which from the appearance would seem likely to end quickly in death. This doctor, who contests with Dr. Tréhan the honour of being the first to revive aortic compression, seems to have great faith in the efficacy of this method. A great many facts militate to-day in favour of his opinion. This is how M. Baudelocque, the nephew, advises compression to be made: "Flex the body and legs of the woman on the pelvis, depress, with the four last fingers of one hand, the abdominal wall, immediately above the fundus uteri, you feel the pulsations of the aorta more easily even than one can feel those of the radial. The duration of the compression may last *for some considerable time* without the woman experiencing any inconvenience." M. Baudelocque says he has practised it during a period of more than four hours. This compression is considered by its author himself only as a means of gaining time. He administers almost immediately the "*ergot potion*" whose action soon determines uterine contraction. Aortic compression, advised some time back, had been generally abandoned because the methods of procedure were essentially bad. Some wished to compress it through the abdominal wall and both walls of the uterus; others would introduce the hand into the uterine cavity itself, and would compress the vessel through the posterior wall of that organ. Both these procedures, which are opposed to uterine contraction, ought to be rejected. In spite of the numerous successes which have been attributed to it, several authors, and M. Jacquemier [illegible] and go even so far as to consider it [illegible] follow accouchement the blood whi[illegible] "comes in a great measure from t[illegible] arterial trunk can only favour the reflux of venous blood into the vena cava and its tributaries." Without doubt the utero-placental arteries would not be able to furnish the enormous quantity of blood that a woman just confined sometimes loses in a few moments, and certainly this blood escapes in great measure from the large venous mouths which the detachment of the placenta leaves gaping on the internal surface of the uterus. While agreeing with M. Jacquemier as to this fact, I differ with him as to the conclusion he draws from it. Such are, indeed, the relations of the aorta and vena cava, that it is almost impossible purposely to make compression of the one without compressing the other at the same time. I agree willingly that one is deceived as to the nature of good that one does, and that one should attribute to the flattening of the vein what one boasts of in compressing the aorta; but what does it matter when the practical result—the arrest of the hæmorrhage—is none the less the consequence. M. Jacquemier has done a true service in calling attention to a theoretical error, but I would almost blame him for doing so, if he deprived the practitioner of a last precious resource. I accept, then, M. Jacquemier's theory, but I shall nevertheless continue to compress the aorta, although convinced that at the same time I shall compress the vena cava. Still another objection has been made. Aortic compression, says one, greatly hinders the blood from arriving by the uterine arteries, but it ought necessarily to augment the quantity which arrives by the ovarian, for it is usually performed below the origin of these latter. The objection loses much of its weight since the hæmorrhage is chiefly venous. Out of four arteries which supply the blood two only are patent after aortic compression. It is then a marked advantage. M. Jacquemier considers as useless and irrational the use of ergot while one is using compression. "How can one admit," says he, "that this agent, whose effects are rapid but transitory, can set up stimulation of the uterus when arterial blood has ceased to come there" It is chiefly in acting upon the nerve-centres and in awaking the excito-motor action of the uterine nerves that the drug exercises on the uterus the special action that one recognises in it. To believe that, after having been absorbed in the [illegible]

[illegible] and the contraction of the uterus. In cases, indeed, where the loss has been considerable, all danger is not over when one has succeeded in stopping the hæmorrhage and in determining the contraction of the organ of gestation. Even though not a drop of blood any longer escapes, the amount of this fluid remaining in the body is no longer enough to distribute to all the organs at the same time as to the brain the stimulus requisite to maintain the integrity of their functions, and women sometimes succumb two or three hours after the arrest of the loss, death supervening then because the bulk of the blood is spread equally over the whole area of the circulatory system and because the brain and spinal cord in particular, receiving only a very small portion, lack the stimulus [illegible]

[illegible] inclined plane so that the head occupies the lowest part, one will powerfully assist aortic compression I think then that compression of the aorta and of the vena cava is useful, while the loss is abundant, but that in cases where the patient has lost a large quantity of blood it ought to be kept up for several hours after the arrest of the hæmorrhage and complete retraction of the uterine walls; only in this last case it is requisite to isolate the aorta from the vena cava, so as to exercise compression only on the former of these vessels.

HOUR-GLASS STOMACH.

To the Editors of THE LANCET.

SIRS,—Since reading the proof of my paper on "Hour-glass Stomach"[1] I have found the record of four cases operated upon by Professor Bier of Kiel. The cases are related in an "Inaugural Dissertation" by Eduard Asbeck, entitled "Vier Fälle von Sanduhrmagen und ihre operative Behandlung." The details are as follows:—

Case 1.—A female, aged 51 years. Ten years' history of stomach trouble, loss of weight, pain, and vomiting, but never hæmatemesis; gastroplasty. The ulcer was near the lesser curvature, the cardiac complement much dilated, and the pyloric normal. Recovery followed the operation.

Case 2.—A female, aged 29 years. Stomach troubles since 10 years old. Hæmatemesis two years ago; constant pain since. The stomach was dilated to three finger-breadths below the umbilicus; resistance was felt above and to the right of the umbilicus. Narrowing of the pylorus was found. Gastro-duodenostomy; death. At the post-mortem examination an hour-glass stomach, the pyloric complement of which had been mistaken for the whole stomach, was found. The stricture between the pouches was at the middle of the stomach, and it permitted the passage of one finger only.

Case 3.—A female, aged 39 years. There had been stomach trouble since childhood, with vomiting, pain, and loss of appetite. Above the umbilicus was an area of resistance and tenderness; the greater curvature descended an inch below the navel. A tumour of the size of a hen's egg was found in the middle of the stomach, adherent to the anterior abdominal wall. The tumour was excised and was found to consist of induration round a chronic ulcer. Gastroplasty was performed and recovery followed.

Case 4.—A male aged 56 years. Since 12½ years of age there had been stomach trouble. In the epigastrium there was a tumour of the size of a man's fist. On exploration this was found to be due to adhesion of the stomach and œdema of the anterior abdominal wall. There was an ulcer in the anterior wall between the curvatures which in its contraction had caused an hour-glass stomach. Excision of the ulcer; gastroplasty; death.

I am, Sirs, yours faithfully,

Leeds, April 30th, 1901. B. G. A. MOYNIHAN.

"THE ROYAL ORTHOPÆDIC HOSPITAL."

To the Editors of THE LANCET.

SIRS,—In answer to the letter dealing with the proposed sale of the Royal Orthopædic Hospital in THE LANCET of March 23rd, p. 893, and your leading article of April 6th, p. 1025, Mr. H. H. Marks replied on April 20th (p 1167) accusing a "Hospital Governor" of untruthfulness and of being an enemy of the hospital. He has further made a private communication to you in answer to the arguments against the sale of the hospital. Why should Mr. Marks furnish you privately with information that he denies to the governors of the hospital? Where are the facts and figures in support of his autocratic policy of sale and his detailed criticism of the alternative scheme? For my own part, I can only say that I am prepared to support all statements in my letters except that of the offer of £1200 for the hospital premises on lease, an error which was freely and frankly withdrawn by the senior *surgeon to the hospital.* The latter gentleman has endorsed my statements, so that Mr. Marks can hardly avoid an answer on the score of anonymous criticism. My card is inclosed and my name is well known to THE LANCET. My name will be forthcoming whenever necessary. It is open to Mr. Marks meanwhile to answer the criticisms of the senior surgeon—if he can. I am, Sirs, yours faithfully,

London, April 29th, 1901. HOSPITAL GOVERNOR.

"THE MEDICAL PROFESSION AND THE FRIENDLY SOCIETIES."

To the Editors of THE LANCET.

SIRS,—The National Friendly Society proposes to start a branch in the town where I live, the population of which is about 4000. My fellow practitioners and self have been asked to undertake the work. We have agreed to act in unison regarding the matter and are now considering whether to accept or refuse their terms Our objections are: the society has no wage limit; a member need not join up to the full extent of his income; the society's fees are smaller than our usual ones; and the working and agricultural labourers are already well provided for with clubs. We should be glad to have your advice on the subject. I am, Sirs, yours faithfully,

April 29th, 1901. W. E. T.

⁂ Mr. E. W. Brabrook in a letter published in our columns last week says that the friendly societies "desire to pay a fair price for the services rendered to them. They are neither beggars nor sweaters. How is the fair price to be ascertained? The medical man is to say, taking the society as a whole, for what sum paid by every member, whether sick or well, he is willing to attend those who are sick." Mr. Brabrook writes as one having authority to control the policy of the friendly societies and we recommend our correspondent and his colleagues to ascertain how far the National Friendly Society will see the situation with Mr. Brabrook's eyes. It is a great thing that all the medical practitioners of the town have agreed to have a common policy. We recommend that they fix a proper price for which they are willing to attend the proposed new branch and await the result.—ED. L.

---

[1] THE LANCET, April 27th, 1901, p. 1190.

To the Editors of THE LANCET.

SIRS,—Mr. Brabrook's letter in THE LANCET of April 22nd, p. 1232, is most valuable and instructive. He not merely implies, but actually states outright, that a medical man's action in "taking a club" is governed by ordinary commercial rules, and is not in any way "charitable." He says of the societies: "They desire to pay a fair price for the services rendered to them. They are neither beggars nor sweaters." This is a *petitio principii* with a vengeance. It is unfortunately also the exact reverse of the facts. When even Mr. Brabrook can fall into such an astounding error, which absolutely destroys the value of an otherwise good letter, what hope is there of conciliation? None, whatever, Sirs, in my opinion. The fight is as inevitable as was the Boer war. The only question for the profession is: Will its members organise and win, or prefer disunion and be beaten in detail?—I am, Sirs, yours faithfully,

EXPERIENCE.

April 29th, 1901.

"BICYCLING IN LONDON."

To the Editors of THE LANCET.

SIRS,—Your correspondent "M.D. Lond.," whose letter appeared in THE LANCET of April 27th, p. 1236, is illogical. When she drives in a hansom cab she encounters "horses that flounder and threaten to fall," but no sooner is she mounted on her wheel then behold "every horse is well under control." It is perfectly true, as stated in your annotation in THE LANCET of April 20th, p. 1154, that bicycling in London, when indulged in by women, is fraught with danger, although their machines are safer than men's, because so much easier to dismount from, while their upright seat allows them to survey their surroundings with facility. The agent responsible for the downfall of so many bicycling women is the too long petticoat or skirt. Until women can bring themselves to subordinate their clothing to utilitarian ends they will do well to refrain from bicycling in London. I am, Sirs, yours faithfully,

A CYCLIST SINCE 1871.

April 27th, 1901.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The St. John Ambulance Association in India.—Still Further Increase of the Plague Epidemic.—Change of Stations for British Troops.

FOR many years the ambulance association in connexion with the Order of St. John has recognised the extensive field for its work which India presents, but the attempts at instruction in first-aid have been spasmodic and individual. It is proposed now to institute various centres in India, and Major Yate of the central executive has been appointed organising secretary and is at present touring for the purpose Influential committees have been appointed at Calcutta, Madras, and Bombay, and local enthusiasts have been secured to carry out the work. Some organisation of this kind was absolutely necessary, and amongst the European population the instruction ought to be very popular. Every British sojourner in India is liable to accident of some kind or another, and he is often so placed that professional skill is beyond his reach. It is therefore particularly necessary that his comrades should be able to render first-aid. I need only mention planters, sportsmen, volunteers, railway officials, and police to show the immense field for the work of this association. I do not anticipate much success with the natives of India, either with the educated classes or by a modified elementary course of instruction with minor officials. The object of the association and its teaching must be first assimilated by the British residents. The movement has been already taken up, and I understand that many classes have been started. Probably, in no other country could the benefit of a knowledge of rendering first-aid prove so useful as to the British residents in India, and the movement should meet with every success.

The record of plague for the past week shows a still further development. The total deaths number 11,606 compared with 11,480 during the previous week, and 4546 in the corresponding week of last year. There has been a further increase in the districts of Bengal—the country surrounding the cities of Patna and Gya contributing most to the 7881 deaths returned for Bengal. In the cities it has declined and there is a marked abatement in Calcutta. The disease continues to spread in the Punjab. Elsewhere there is little change. The official notification of areas affected includes the Bombay Presidency, the Karachi district (Sind), the Salem district of the Madras Presidency, the towns of Calcutta and Howrah and the Twenty-four Parganas, Patna, Gya, Shahabad, Saran, Musaffarpur, Darbhanga, Monghyr, the Santhal Parganas, Hazareebagh, Palaman and Maubhum districts of Bengal, the Benares and Ballia districts of the North-west Provinces, Bangalore (the city and the civil and military stations), Mysore city, and the Kolar goldfields. In addition there are districts affected in Baroda territory and in Rajputana and in several districts in the Punjab. The plague has at last attacked Agra, presumably through an imported case, and thus the disease shows further signs of attacking slowly town after town up the course of the Ganges. Hitherto all this densely populated area has escaped. With the likelihood of recurrences year after year as in the cities first attacked there is little chance of the epidemic disappearing for a long time to come.

I am glad to say that the military authorities of the Government have at last recognised the dangers of Dum-Dum to the health of British troops. The garrison is to be reduced considerably all the year round. A larger number of men will in future be kept during the summer at Lebong (Darjeeling) and the force at Dinapur will be increased during the winter.

April 13th.

GERMAN SURGICAL CONGRESS.

(FROM OUR BERLIN CORRESPONDENT.)

THE Thirtieth Congress of the German Surgical Association was opened in Berlin on April 10th, Professor VON CZERNY (Heidelberg) being in the chair.

Renal Surgery in the Nineteenth Century.

Professor KUSTER (Marburg) read the first paper. In it he gave a review of what had been done in renal surgery since the time of Sir T. Spencer Wells and Dr. Gustav Simon, who were the first to perform such operations. The mortality, which was at first 44·6 per cent., has now fallen to 16 per cent, this result having been obtained not only by an improved method of operating, but especially by the greater accuracy of diagnosis. Cystoscopy and catheterisation of the ureters now enabled surgeons to ascertain whether one kidney or both kidneys were affected. In cases of moveable kidney nephropexy gave the best results, being followed by only 6 per cent. of relapses. For wounds of the kidney suture and packing (tamponade) were to be preferred to total extirpation, as suggested by Dr. Simon. In suppuration of the kidney the course to be followed differed according to the cause of the suppuration. In tuberculous disease nephrectomy with extirpation of the ureter was the best operation; when there were renal calculi, and also in cysto-nephrosis, nephrectomy was preferable. For malignant growths total or partial nephrectomy was necessary. The lumbar incision was of course the only advisable one, but for large growths laparotomy must be sometimes performed.

The Progress of Diagnosis in Renal Surgery.

Dr. CASPER (Berlin) gave an account of his methods of ascertaining whether a kidney was healthy or not. By catheterisation of both ureters the urine of each kidney was collected separately and was then examined as to its freezing-point, the amount of nitrogen contained in it, and the amount of sugar which followed the administration of phloridzin. It has been found that the freezing-point of urine varied according to the condition of the kidney from which it came, for the healthier the kidney was the more nearly did the freezing-point of the urine approach that of water. A healthy kidney excreted a greater amount of nitrogen than an unsound one and the amount of sugar obtained by the administration of phloridzin was also smaller in disorders of the renal function. Dr. Casper mentioned 14 cases in which by his methods the existence of renal troubles was ascertained previously to operation, although other methods had given no trustworthy results.

Treatment of Enlarged Prostate.

Dr. GOLDMANN (Freiburg) proposed that in cases of enlarged prostate recourse should be had to cystopexy—i.e., suturing of the anterior wall of the bladder to the abdominal wall. In one case he found at the necropsy that the internal orifice of the urethra had become wider by the traction of the cicatrix.

Operations for Goitre.

Professor KOCHER (Berne) presented a report on the second series of 1000 operations performed by him for goitre He said that he now employed excision almost exclusively, enucleation being resorted to in rare cases only. In ordinary goitre the mortality was only 4 per cent. Septicæmia never happened. One patient died from cachexia strumipriva and one under the anæsthetic. He now used neither chloroform nor ether but only local anæsthesia according to Schleich's method. In the last 302 cases no death occurred. He then drew attention to struma profunda, in which condition diagnosis was often difficult The patients complained of dyspnœa or palpitation, so that the disease was sometimes believed to be cardiac trouble or bronchitis, especially when it was accompanied by cough If moveable the tumour might appear above the sternum during a fit of coughing. If it were not moveable the diagnosis might be made by means of the x rays; paresis of the recurrent nerve also sometimes appeared. The operation for struma profunda was very difficult. All the arteries must first be ligatured; when there were adhesions between the tumour and the surrounding tissues "morcellement" was necessary. In his 1000 cases there were 22 of struma profunda. As to the internal treatment of goitre, he said that preparations of the thyroid gland of animals had not given such good results as were at first expected and, moreover, undesirable symptoms often appeared during their administration. Iodine was preferable. Phosphate of soda might also be administered, because it counteracted the hypersecretion of the gland and therefore caused considerable decrease of its size.

Professor KRASKE (Freiburg) said that he had performed 420 operations for goitre, of which one-third were in men and two-thirds in women. In 220 cases extirpation was performed. Ten of the growths were malignant, one was metastatic, and two were accessory. In four cases of enucleation there was severe hæmorrhage afterwards. He used no general anæsthetic, but Schleich's method exclusively. The number of cases of goitre increased considerably from year to year, notwithstanding the use of thyroid preparations—a class of remedies which never produced a permanent cure but only a temporary amelioration.

Professor KÖNIG (Berlin) asked how much of the gland must be left intact to avoid cachexia strumipriva.

Professor KOCHER replied that at least one-fourth must be left.

Disinfection of Infected Wounds.

Professor VON BRUNS (Tübingen) said that the disinfection of wounds by chemical agents was practically impossible; the substances used for this purpose would have to be applied in so concentrated a form that poisoning would be the consequence Disinfection by physical means, such as drainage, large incisions, &c., gave better results, but was not always available. Professor von Bruns had found that pure carbolic acid was less toxic than concentrated solutions He only put from two to six grammes (from 30 to 90 grains) of pure carbolic acid into a wound. The effect was a strong antiseptic action, and the discharge from the wound afterwards became so small that in a case of adenitis the dressing was able to be left undisturbed for three weeks. He had also found that brushing the wound with alcohol was the best way to avoid carbolic acid poisoning.

Professor KÜSTER said that pure carbolic acid was a caustic and that the actual cautery would act in the same way.

Professor KÖNIG recommended incision followed by draining and attributed the good results obtained by Professor von Bruns, not to the carbolic acid, but to the other parts of the treatment. He had used chloride of zinc for many years.

The Indications for General Narcosis and Local Anæsthesia

Professor VON MIKULICZ (Breslau) said that chloroform and ether were both of them dangerous to some extent. The surgeon must not use either ether or chloroform exclusively but must select one or other according to the nature of the case and the condition of the patient. Ether was by no means so free from danger as had been supposed. Local anæsthesia was becoming more and more used even in major operations, especially since Koller's discovery of cocaine and Schleich's anæsthesia by infiltration. Schleich's method had been used by Professor von Mikulicz in a great many cases. It had, however, the drawback that the infiltration caused the tissues to become so swollen that the operation was sometimes made very difficult by the impossibility of distinguishing the different layers of the part—as, for instance, in operations on the mamma In laparotomy Schleich's method was very good for the incision of the abdominal walls, but in the subsequent stages it was often insufficient, and in those cases general anæsthesia had to be induced. For operations on the extremities and for minor operations in general this method was undoubtedly preferable to general anæsthesia. General practitioners now used Schleich's infiltration anæsthesia in the majority of cases. A collective investigation conducted by Professor von Mikulicz amongst the practitioners of Silesia showed that general anæsthesia had been used in 38,000 cases and Schleich's anæsthesia in 103,000 cases. In the choice of a general anæsthetic the surgeon must be guided by the condition of the patient. Chloroform was liable to interfere with the action of the heart, and ether should therefore be employed for patients suffering from cardiac trouble; when bronchitis or other diseases of the lungs existed chloroform was preferable to ether. When pneumonia followed an operation it must not always be attributed to the anæsthetic, for in some conditions, such as strangulated hernia, there was a marked tendency to pneumonia independently of the anæsthetic It had even been stated that pneumonia occurred in these cases when no anæsthetic had been administered Pneumonia often occurred because the patient had caught cold during the operation, and it was recognised that pneumonia after operation had considerably decreased since operating-tables were provided with heating apparatus. Professor von Mikulicz generally preferred ether, an excessive dose of which was not so easily given as in the case of chloroform.

Professor BIER (Greifswald) then gave an account of his injections of cocaine into the lumbar arachnoid, which were noticed in THE LANCET of March 16th, 1901, p. 825. Although himself the author of this method he was more sceptical than other surgeons as to its advisability. There was no doubt that a total analgesia of the lower extremity could be obtained, but undesirable symptoms were very frequent. Headache, vomiting, giddiness, shivering, &c., were met with after the injections The cause of these complications was that the cocaine made its way through the spinal arachnoid into the brain. He had made experiments in the hope of finding means of preventing the cocaine reaching the brain, but was not yet able to give details. When weak solutions were used the anæsthesia was less complete, but complications nevertheless followed. Tropacocaine was reported to be less dangerous than cocaine, but Professor Bier was of opinion that his method was not as yet adapted for use in general practice.

(To be continued.)

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Arsenic in Beer.

DR. NATHAN RAW, the medical superintendent of the [illegible] some interesting evidence before the [illegible] -d Kelvin which is [illegible] sence of arsenic in beer. Dr Raw stated that the recent epidemic of arsenical poisoning in Liverpool did not appear to be as extensive as that in Manchester, although some of the cases had been of a severe type During the last three years there had been 226 cases of peripheral neuritis in the Mill-road Infirmary, of which number 153 had presented symptoms which might be attributed to the presence of arsenic. Of these 226 patients 51 had died, the apparent cause of death being general asthenia with cardiac failure in most cases. During the years 1898 and 1899 the number of cases of neuritis averaged 30 a year, but a sudden increase was first noted in June, 1900, which steadily progressed until the end of 1900 Reviewing the epidemic as a whole he had noted the cases to be divided into two classes—

acute and chronic. Of the former he had only seen 17 cases. They occurred late in the epidemic, about the beginning of December. The patients had the appearance of having been suddenly and acutely poisoned with a large dose of arsenic. The symptoms, although acute for a few days, passed off, and in all cases the patients were discharged as recovered. The chronic cases comprised by far the greater number, and on admission they presented the usual symptoms of peripheral neuritis and had the appearance of some slow and chronic form of poisoning, attributed at that time to alcohol. Dr. Reynolds's paper was the means of his attention being drawn to the presence of arsenic, which of course explained the cause of the epidemic. He had noticed that since the epidemic of arsenical poisoning in Liverpool the amount of alcoholism had decreased.

Mr. Benn Wolfe Levy and the Freedom of the City.

The City Council are about to confer the freedom of the city upon Mr. Benn Wolfe Levy in recognition of the benevolent spirit which animated him in the matter of the David Lewis trust. It will be remembered that the late Mr. David Lewis left his large fortune to his two nephews, of whom Mr. Levy was one. He also left a sealed letter expressing the hope that his legatees might devote the money for the benefit of the people of Liverpool and Manchester. Mr. Levy and his co-trustee at once gave effect to this direction, although they were not legally bound to do so. The outcome of this generosity, as far as Liverpool is concerned, was the erection of the New Northern Hospital (now known as the David Lewis Northern Hospital). Funds were also provided from the same trust for the building of new homes for nurses in connexion with the Victoria Jubilee Memorial. The trustees of the fund also acquired a site for the purpose of a recreation ground for the people in the east end of the city, and they are also erecting a handsome pile of buildings on the site of the old St. James's Market for the purpose of homes for single men, besides a library and other institutions for the people of the south end of Liverpool. A large sum of money has been devoted to these undertakings, and Mr. Levy, as the head of the trust, has travelled long distances to inspect the best-equipped hospitals, in order that Liverpool may possess in its new Northern Hospital one of the finest buildings of its kind. Mr. Levy has also devoted a good deal of time in superintending the erection of the new hospital, and it is generally acknowledged that the David Lewis Northern Hospital is a building thoroughly up to date in every particular.

The late Arthur Samuels, M.D. St. And., &c.

Dr. Arthur Samuels succumbed to an attack of pneumonia of short duration on April 21st, at the age of 70 years. He received his medical education in Dublin and obtained the Membership of the Royal College of Surgeons of England in 1858. He graduated as M.D. of St. Andrews University in 1862. He was an honorary physician of the Liverpool Hospital for Consumption for a number of years, and he also served the ratepayers of Everton for over 20 years as a member of the burial board. Dr. Samuels was a man of exceedingly amiable disposition and it can be truthfully said of him that he had troops of friends and was never known to have made an enemy.

A University for Liverpool.

At a special meeting of the Council of University College, under the presidency of the Earl of Derby, K.G., held on April 17th, the question of converting University College into Liverpool University was discussed, and the following motions were unanimously adopted :—

1. That, while gratefully acknowledging the advantages which have accrued to University College, Liverpool, by its association with *Victoria University*, this Council is of opinion that a university should be established in the city of Liverpool; that this Council will welcome a scheme with this object upon an adequate basis, and that a committee be appointed to consider and report upon the whole question, with power to make inquiries and to communicate with other bodies.
2. That the committee consist of all the members of Council, with power to associate with them any other persons whom they may think fit.

April 30th.

SUBSTANTIAL HELP TO THE METROPOLITAN HOSPITAL.—The chairman of the Metropolitan Hospital, Kingsland-road, announced at the annual meeting of the governors and subscribers, held on April 29th, that the trustees of the late Mr. Zunz had awarded to the institution £1000 annually for 10 years.

WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

Plague Precautions in Ports.

THE West of England and South Wales Branch of the Incorporated Society of Medical Officers of Health has among its members so many port medical officers that it is not at all surprising to find the question of the introduction of plague brought forward at the meeting on April 18th at Plymouth, although it had been discussed at Bristol as recently as February last. The medical officer of health of Plymouth (Mr. F. M. Williams) urged the need for new regulations by the Local Government Board in lieu of the Order of 1896, in view of the opinion, now pretty generally held, that rats are the prime factors in the spread of the disease. It appears that the dock authorities in Plymouth do not insist upon the gangways of vessels being raised at night, nor are the cable ropes protected with iron collars as at Bristol, Liverpool, and elsewhere, in order to prevent rats from coming ashore. Mr. Williams considered, also, that regulations should be framed with regard to the examination of baggage, though he did not state precisely how this should be carried out, and other speakers, notably Mr. J. O. Heaven of Bristol, were of opinion that the proceeding would not be at all practicable. Having regard to the return of the troops from South Africa and to the possibility of plague being brought into this country from the Cape, it is very satisfactory to learn that the military authorities have given the port sanitary authority of Plymouth a free hand in dealing with infected soldiers and have placed at the disposal of the authority Drake's Island, one of the forts, and if necessary Staddon Heights, and have agreed to pay all costs that may be incurred by the authority.

A Low Death-rate.

The death-rate of Porthcawl in 1900 was only 6·2 per 1000. This Welsh seaside resort has a resident population of about 2000.

Housing of the Working Classes in Swansea.

The Swansea Corporation are about to erect cottages for working men. They are to cost £194 each and will be let at a rental of 6*s.* weekly. Each house will contain a parlour, kitchen, and scullery, three bedrooms and a bathroom. This last is a distinct innovation in Swansea cottages and it will be interesting to see whether it will be appreciated, for it is remarkable how little value, as a rule, is attached to a bathroom by the working classes. Even in the coal-mining districts, where the colliers have their daily baths on returning from work, they seem to prefer the wooden tub made out of half of a 40-gallon cask before the kitchen fire rather than to retire to a separate bathroom. In one Glamorganshire village where the houses are nearly all owned by the proprietors of the colliery bath rooms were erected leading out of the kitchens, but the long iron baths are never put to their legitimate use and as often as not are found filled with coal or used as a general receptacle for odds and ends.

Royal Albert Hospital, Devonport.

A successful bazaar and café chantant in aid of the funds of this hospital was opened by Lady Charles Scott on April 23rd. The annual income of the Royal Albert Hospital averages £4000 and the expenditure amounted to £4500. Recently improvements have been made in the building at a cost of £2000. Towards this sum Sir John Jackson promised £500 provided £1500 were raised by a certain date, and at present only £182 are needed to obtain the promised sum. The whole of the proceeds of this bazaar will be devoted towards the expenditure of the hospital and not towards the building fund for the recent improvements.

Crownhill Convalescent Home.

The annual meeting of the subscribers of the Crownhill Convalescent Home near Plymouth was held on April 19th under the presidency of Sir Massey Lopes. The medical report stated that 246 patients had been admitted during the year 1900. The financial statement showed that the income amounted to £478 and that a favourable balance of £7 remained. Sir Massey Lopes in appealing for increased subscriptions alluded to the munificence of the founder of the home, Dr. C. A. Hingston

April 29th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Glasgow University.

THE graduation ceremony closing the winter session of the university took place on April 23rd. Among those who received the honorary degree of *LL.D.* were *Andrew Cecil* Bradley, M.A., formerly professor of English literature in the University; Charles Scott Dickson, K C., M.P., Solicitor-General for Scotland; and Arthur William Rücker, D Sc., F.R S., secretary of the Royal Society. The degree of M.D. was conferred on Alfred George Newell, M.B., C.M., Ursula Chaplin, M.B., C.M., and George Mervyn Sydenham, M.B., C.M. Mr. Newell was "commended" for his thesis on "Insanitary Areas and Houses in Bombay and their Relation to Plague, with a Suggested Scheme of Improvement." The following medical graduates received the degree of D Sc.: Walter King Hunter, M.D., B.Sc., Adam Brown Kelly, M.B., B.Sc., Robert Stevenson Thomson, M.D., B Sc, and James Sim Wallace, M.D., B Sc. Among the University prizes the Dobbie-Smith gold medal for the best essay on a subject within the limits of the science of botany with an illustrative series of microscopic and macroscopic specimens was awarded to Daisy Annabella Murdoch Clark, M.B, B Sc., the junior Arnott prize in physiology was divided between William B. Morton Martin and John Logan Stewart, M.A., and the senior Arnott prize was gained by Joseph White, M.A., B Sc. The most distinguished M.A. for the year (1900) was adjudged to be Mabel Atkinson; this lady accordingly received the Thomas Logan Memorial medal. The various class prizes and medals were also announced, Miss Gertrude Bostock, B.Sc., winning at Queen Margaret College medals in medicine, in surgery, and in pathology. The ceremony was closed by an address from the very Rev. Principal Story, LL.D. The Principal first made acknowledgment of the benefactions received by the University during the academic year. These included the sum of £11,000 presented by the late Mr. T. B. Thomson for the *reconstruction of the anatomical school, a sum of £1200 for* the foundation of a scholarship in pathology in memory of the late Professor Joseph Coats, and various other donations towards objects connected with the arts and science faculties. The Principal also intimated that the appeal for funds to increase and improve the medical and scientific laboratories will shortly be placed formally before the public, and he announced that the subscription list towards this object already reached £34,000, this sum including two donations of £5000 each. In connexion with the celebration of the ninth jubilee, which is to take place on June 12th, 13th, and 14th, he stated that representatives were expected from the English, Irish, Colonial, European, and American universities. The remainder of the address was occupied with a discussion of the true nature of education and of the relationship of the University to commercial and technical education. One feature of the jubilee celebrations is to be the issue of a memorial album to which many distinguished graduates have undertaken to contribute. Reminiscences of the old days when the college was situated in the High-street are to be supplied by Lord Lister, Sir Henry Campbell-Bannerman, Professor James Bryce, Sir Henry Craik, Sir William T. Gairdner, and Principal Rainy. The Rev. Henry Grey Graham has promised to write a historical sketch of the University and an article on the development of the medical faculty will be contributed by Sir Hector Clare Cameron. Other contributors include the Master of Balliol, Sir Lewis Morris, Mr. W. E. Henley, and Mr. Neil Munro. The album is to contain illustrations by Mr. J. Guthrie, R.S.A., Mr. D. Y. Cameron, and Mr. Muirhead Bone, and the representatives of "Young Glasgow," both in art and literature, will add to the interest of its pages. The corresponding secretary is Mr. Archibald Leitch, University Union, Glasgow. At the April meeting of the University Court Dr. J. Hutchison was appointed a representative on the board of the Victoria Infirmary in place of the late Dr. James Dunlop. It was agreed to grant the use of the chemical department for the annual meeting of the Society of Chemical Industry. A resolution received from the Students' Representative Council recommending that the degree of Ch.M. be altered to Ch.D., thus granting a doctorate in surgery, was remitted to the Senate for consideration.

Handsome Bequests to Hospitals.

The trustees of the late Mr William Houldsworth have under the terms of his will intimated the following bequests: Glasgow Royal Infirmary, £3500; Glasgow Western Infirmary, £3500; Ayr County Hospital, £1000; Royal Hospital for Sick Children, the Association for the Relief of Incurables, and the Sick Poor and Private Nursing Association, Glasgow, each £250. A number of smaller sums are also granted to several special hospitals and associations. Under the same will the University of Glasgow receives £2000 and the West of Scotland Technical College £1500.

Small-pox in Glasgow.

The decline of the epidemic continues. The new cases registered during the past fortnight numbered 67, as against 92 in the previous fortnight, and the total actually under treatment has fallen to 130. No new cases during the fortnight occurred in either the north-western or south suburban districts of the city. According to recent statements of the convener of the Health Committee 302,000 of the citizens have been revaccinated since the beginning of the year.

Pharmacy Prosecutions in Glasgow.

The Pharmaceutical Society continues to give attention to the sale of poisons in open surgeries. During the past week two cases have occurred in which assistants in such surgeries, unqualified under the Pharmacy Act, have been convicted of the sale of scheduled poisons. *In one of the cases the poison*—red precipitate in the form of an ointment—was not even labeled as required by law, and the sheriff, regarding this as an aggravation of the offence, inflicted a fine of £4 and costs. In the second case two scheduled poisons—viz., carbolic acid and tincture of opium—were sold, and the accused was fined £6 and expenses. The legal representative for the defendant stated that his client had been prevented from passing the final examination by extra work due to the outbreak of small-pox. There seems to be no limit to the apologetic burden to be placed to the debit of this unfortunate epidemic.

April 30th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Royal Victoria Hospital, Belfast.

MR. WILLIAM CRAWFORD, who has recently been appointed chairman of the Board of Management of the Royal Victoria Hospital, Belfast, has decided to present the hospital with a new and up-to date ambulance which will be of the greatest benefit to the patients.

Royal University Graduates' Association.

At a very largely-attended meeting of the council of the Royal University Graduates' Association held in Belfast on April 26th, Dr. W. A. McKeown (President of the association) being in the chair, the following resolutions were unanimously adopted:—

[illegible] welcome the assurance given by His Excellency [illegible]

Irish university education [illegible] main purpose of which was to establish a university in Dublin for Roman Catholics and the conversion of Queen's College, Belfast, into a provincial university for the "great Presbyterian bodies of the north"

3. That whilst we heartily approve of the scheme for the more [illegible] of Queen's College, Belfast, we are of opinion that [illegible] itution by admitting to a share [illegible] the graduates and of private donors as well as [illegible] ive public bodies, county and municipal. [illegible] the Royal Commission into Irish [illegible]

The Admission of Patients to Asylums.

An interesting point bearing on the method of admission of patients into asylums came up at an inquest in Belfast, on April 26th. Briefly, the facts were as follows. A woman, the wife of a labourer, showed signs of nervous disease and a medical man told her husband to get a line for her admission to the asylum. He procured a "blue" form and took it to another medical man who had also attended his wife, but he refused to certify her as insane. He then consulted the first medical man who advised him to go to the relieving officer for a line for the union infirmary. The woman was taken to that place, but at her own request the husband took her home, and on April 20th she became so bad that he brought a third medical man, who recommended him to get a magistrate's order for her admission to the asylum, but he found the court was over when he got there. On April 22nd the husband made an information and procured a warrant, and that evening a police-sergeant removed her to the police-office in the covered police-van. In the police office she became weak, a medical man had to be sent for to see her, and on recovering she went with her husband and the police-sergeant to the workhouse, where she died two days afterwards from exhaustion following upon mania. The coroner said that it was a barbarous system which was in practice at present of taking insane women down to the police-office and bringing them to the petty sessions court to be examined there. A simple and effective plan would be to have the "blue" form filled up by the dispensary medical officer and two magistrates brought to the house without any fuss or any trouble or any worrying of the insane person, and then the patient could be removed to the asylum where expert treatment could be put in force at once. He hoped in future that the plan he had mentioned would be adopted. The jury returned a verdict in accordance with the medical evidence and added a rider to the effect that they considered the procedure for the admission of lunatics to the district asylum as shown in the case was cumbersome and barbarous and that the simple plan of getting the dispensary medical officer of the district in which the lunatic resided to certify insanity in the presence of two local justices at the house of the lunatic, and that the lunatic should be sent direct from there to the district lunatic asylum, was the more humane plan.

Queen's College, Belfast.

Dr. P. Redfern has contributed £500 to the new endowment fund of Queen's College, Belfast.

The late Dr. C. K. D. Tanner and the Medical Profession in Cork.

Dr. Tanner had been intimately associated with the members of the medical profession in Cork for many years. He had studied arts and medicine in the Cork Queen's College and graduated in both at the late Queen's University. His father had been professor of surgery at the Cork College for a number of years and enjoyed a large and remunerative practice in the South of Ireland. Dr. Charles Tanner succeeded his father as surgeon to the Cork South Infirmary and a brilliant professional career seemed to be in store for him. However, he preferred the excitement of parliamentary life and finally ceased to practise his profession. Though, as is well known, he was a very pronounced politician, yet he managed to preserve the friendship of many whose political opinions were entirely at variance with his. Many of his professional associates in Cork knew that his health had been gradually breaking down for a number of years and they saw with regret that the end could not be long deferred. It is well known in Cork that in private life Dr. Tanner was a most courteous, genial, kind-hearted friend, and a vote of condolence passed to his relatives at the last meeting of the Cork Medical and Surgical Society fittingly expressed the kindly feelings which at all times subsisted between him and the other members of the profession in Cork.

April 30th.

PARIS.

(From our own Correspondent.)

Death of Dr. Napias.

Dr. Napias, director of the Assistance Publique, died on April 29th, at the age of 59 years, owing to disease of the liver from which he had for some time past been a sufferer. Born in 1842, at Sezanne (Marne) he entered the medical department of the navy in 1863, and retiring in 1877 he returned to Paris where he took his doctor's degree after which he gave his whole attention to hygiene. In 1877 he founded, together with Budin, Gubier, Dubois, Laborde, and Pinard, the Society of Public Medicine and Professional Hygiene, of which society he was the secretary-general. He was appointed departmental inspector of factory children and became president of the Council of Inspectors-General of Charitable Institutions, a member of the Consultative Committee of Public Hygiene of France, a member of the Superior Council of the Assistance Publique, and finally on May 12th, 1898, director of the Assistance Publique. Dr. Napias was a man of the very greatest merit and was loved and esteemed by all who knew him. He was absolutely devoted to the work which he carried on for the last three years and which he was most anxious to protect from the attacks made upon it, attacks which were often unjustifiable, by granting universally demanded reforms. As a scientific writer he stood high and among his works I may mention: A Manual of Industrial Hygiene—a Study of the Progress of Hygiene in France from 1878 to 1882 (with A. J. Martin); Isolation Hospitals of Europe; Poor-law Relief in the Department of Sambre et-Loire; and Hospital Hygiene and Poor-law Relief (with A. J. Martin). He had been a member of the Academy of Medicine since 1897 and was also *officier* of the Legion of Honour.

An Improved Method of Applying the Treatment of Finsen.

The treatment of lupus by photo-therapeusis, after the method of Finsen, has been adopted in Paris as in other scientific centres of Europe. There is one set of apparatus in working order at the St. Louis Hospital, the great French school of dermatology, and another is at work in a private dermatological institute. There are, however, two grave obstacles in the way of applying this treatment in a widespread manner, one being the length of time necessary and the other the expense. Each sitting lasts one hour and requires the attendance of a specially trained nurse for each patient. A great step in advance has, however, been taken by means of the apparatus devised by M. Lorted and M. Genoud of Lyons. M. Gaston has just given a set to the French Society of Dermatology and Syphilography. The apparatus is based on the same lines as that of Finsen but is much more powerful, and the condensers necessary in Finsen's apparatus have been done away with by intercepting the luminous rays as near their point of origin as possible As in Finsen's apparatus there is a special arrangement for cooling the rays The results are superior to any hitherto attained. It is possible to affect an area almost double that formerly operated upon and the photo-chemical intensity of the rays is so great that the time of exposure necessary is reduced from one hour to 15 minutes. Besides the economy in attendants which this brings about it must be noted that Finsen's apparatus required a current of from 60 to 80 ampères, which is not to be met with everywhere, while the new apparatus only requires a current of 10 or 12 ampères, which the ordinary electric-light mains can easily supply. These important improvements will allow the light treatment to be much more generally used than heretofore. Its results are without doubt remarkable, but up to now the expense attendant on the treatment has precluded its general application.

The Employment of White Lead.

A vigorous campaign is being carried on against the use of *blanc de céruse* (carbonate of lead) in painting. This is in accordance with a resolution passed by the Superior Council of Hygiene of France which ranked white lead among the deadly poisons. It is well known that this pigment is the common cause of the lead-poisoning so widespread among painters. The Director of Posts and Telegraphs has forbidden its use in all the offices under his control, and in addition the painters of Grenoble have gone on strike to demand that all employers should use zinc white instead of lead white. Zinc white is far less poisonous but more expensive, as owing to its want of "body" more coats have to be laid on. The painters have sent out a circular to all medical men in France asking for their support. They also ask for the subscriptions of medical men to be paid into the strike fund in the name of those principles of hygiene and sanitation upon which medical men are always insisting.

May 1st.

Queen Victoria Jubilee Convalescent Home, Clifton.—At a town's meeting held at Bristol on April 26th under the presidency of the Lord Mayor it was resolved to appeal for donations to the Queen Victoria National Memorial and to a local fund towards completing the endowment of the Queen Victoria Jubilee Convalescent Home, Clifton.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Sydney Hospital.

THE annual meeting of the governors of this hospital was held on Feb. 26th, His Excellency the Lieutenant-Governor presiding. The annual report for the year 1900 showed that 3701 patients had been admitted Of these 404 died, 2084 were discharged, and 984 were relieved. The average number of beds occupied was 296, the largest number being 314 and the smallest 280; the average duration of stay in days was 27. The number of accidents and urgent cases admitted without recommendations was 1664; the number of cases admitted on Government orders was 1349; and the number of admissions on subscribers' orders was 115. The number of patients who contributed to their maintenance was 573. During the year 2269 operations were performed. The new cases treated in the out-patient department during the year numbered no fewer than 25,829, and the attendances numbered 91,002. The President stated that during the past year the operations of the institution had been eminently satisfactory and the board had been able to carry forward a credit balance. It had also been able to introduce several scientific departments. It was the intention to utilise the institution during the coming year for the benefit of the public more than had ever been done. The Government had been good enough to advance £6000 to provide for certain much needed improvements and the board intended to enlarge the operating theatre and to bring it up to modern requirements. It was also intended to afford greater facilities for treating casualty cases. The board, in conjunction with the University of Sydney, was making the necessary arrangements to give better education in connexion with the School of Dentistry which it was expected would be established before long at the Sydney Hospital. At the ordinary monthly meeting of the board of directors a request was granted from the honorary medical staff for permission to erect a tablet at the hospital in memory of the late Dr. Neill. Dr. O. V. Bowker was appointed medical superintendent, Dr. H. S. Stacy resident pathologist, and Dr. A. G. Corbin, senior resident medical officer.

Prince Alfred Hospital, Sydney.

The annual meeting of the governors of the Prince Alfred Hospital, Sydney, was held on March 6th. His Excellency the Lieutenant-Governor presided. The report for 1900 stated that the number of patients under treatment during the year and the general results were as follows. Remaining in hospital Dec. 31st, 1899, 219; admitted during the year 1900, 3287—total under treatment, 3506. Of these 1807 were cured, 782 were relieved, 313 were unrelieved, 381 died, and 223 remained in hospital on Dec. 31st, 1900. The number of beds in the hospital was 236; average number resident daily, 227; mean residence of patients in days, 27; rate of mortality per cent. (deducting the 58 deaths of patients which occurred within 24 hours of admission), 9·21; rate of mortality per cent. over total cases under treatment, 10 7; rate of mortality per cent. on admissions, 11 59. Number of attendances in out-patient and casualty departments, 43,769; number of individual patients in these departments, approximately, 11,000. Of the patients admitted during the year 1148 were cases of accident or urgency, 1420 were received under Government vouchers, 712 contributed more or less towards their support in the hospital, and 32 were treated in the Ogilvie and Fairfax wards (included in contributing cases) The total amount received from contributing patients during the year was £2201 14*s*. 3*d*. The mean residence in the hospital of each patient during the year had been 27 days. Of the total deaths occurring in the hospital 58 took place within 24 hours of admission. The average cost per bed for the year had amounted to £66 7*s*. 6*d*., as against £69 16*s*. 9*d*. in 1899 This result had been calculated, as in past years, after deducting the cost of the out-patient department, and of buildings and permanent improvements, from the total expenditure. The income for the year was £17,602 3*s*. 3*d* £506 2*s*. of this amount were transferred from the endowment fund to cover the cost of building the ambulance-driver's cottage. The Government contributed £10,092 3*s* 9*d*., £3800 12*s*. 5*d*. on the £ for £ principle, and the remainder for the maintenance of Government patients. Professor Anderson Stuart, president of the hospital, said that the operative department of the hospital had been an increasing one. In 1883, when the hospital was opened, there were *only 147 operations. Last year there were no* less than 1733. This showed the growth in the amount of work done in the hospital. The accommodation was altogether too limited. They had 236 registered beds in the hospital. The average number of persons in the hospital had been about 227, leaving only nine beds for the whole hospital, as on the average, available at any given time. But that did not really represent the actual state of affairs. Taking this year as far as it has gone, there had only been nine days when they had a number of patients in the hospital equal to, or under, the number of beds in the hospital. On every day of this year, excepting those nine days, there had been more patients than beds. They put patients in shakedowns and on the floor, and then they were simply obliged to say, "We are sorry, but we cannot take a case in." They had been obliged to do that in cases that ought to have been taken in. Absolutely the accommodation of the hospital and the resources of the hospital were fully occupied, and they simply could do no more. That meant that evidently the time had come when the resources of the hospital would have to be increased. The following appointments have been made at the hospital: medical superintendent, Dr. C. B. Blackburn; resident pathologist, Dr. J B Cleland; resident anæsthetist and registrar, Dr. W. E Harris; resident medical officers, Mr. E. V. Barling, Dr. J. a'B. D. Barton, Dr. R. D. Heggeton, Dr. Sydney Jones, Dr. A. H. Macintosh, and Dr. S. M. Verco; gynæcological clinical assistants in the out-patient department, Dr. A. Watson Munro and Dr. H. C. Taylor Young.

March 19th.

Obituary.

JOHN ARCHIBALD LORIMER, M.R.C.S. ENG., L.R C P. LOND.

THE death occurred on April 27th, at Farnham, of Mr. J. A. Lorimer. On April 26th Mr. Lorimer whilst on his professional round was being driven in a governess car by his coachman when the pony got beyond control and bolted, and the vehicle was overturned. The coachman escaped unhurt but Mr. Lorimer received serious injuries. He was removed by members of the local ambulance association to his home in Castle-street, where he was seen by Dr. C. E Tanner and Dr. J. Hussey, who found that there was but slight hope of his recovery, the base of the skull being fractured; he had also a badly fractured arm He remained unconscious until Saturday afternoon, when he died. Mr. Lorimer was 54 years old and he enjoyed an extensive practice in Farnham and neighbourhood for upwards of 30 years. At the time of his death he was medical officer to the rural sanitary authority of Farnham, medical officer to the Farnham Joint Isolation Hospital, medical officer of the Farnham and Hartley Wintney School District, and medical officer of the north district of the parish of Farnham. Mr. Lorimer had always taken an active part in public affairs and was a member of the Farnham School Board. Formerly a Liberal in politics, he joined the Unionist party at the time of the Home Rule split. He has since been a warm supporter of the Right Honourable St John Brodrick, M P., and as local chairman of his committee at the election last year contributed largely to the return of the Secretary of State for War. He was exceedingly popular and his death is universally mourned in West Surrey.

MEDICAL MISSIONARY ASSOCIATION.—The annual meeting of the friends of the Medical Missionary Association was held at Exeter Hall on April 26th, Dr. George Saunders, C.B , presiding. The report for the past year stated that during the past winter nine men had been in residence in the training house at Highbury-park. Dr. J L. Maxwell said that the association encouraged its students to take the highest possible training, and this was not found prejudicial to the missionary spirit and activity. The year's receipts have been £1761 and the expenditure £1857.

Medical News.

University of Cambridge.—At the congregation on April 25th the following degrees were conferred:—

Doctor of Medicine.—C. Woodhouse, King's College; W. Langdon Brown, St. John's College; and A. E. Porter, Emmanuel College.
Bachelor of Medicine and Bachelor of Surgery.—C. C. Simpson, Trinity College; and H. A. Upward, Christ's College.

The following have passed the examination in Public Health for the University diploma:—

S. H. Ali, J. B. Anderson, J. Andrew, J. M. Flavelle, J. G. Forbes, J. C. Harcourt, T. H. Jones, R. H. Makgill, H. de R. Morgan, R. Niven, A. C. Pearson, H. Peet, H. M Pereira, W. H. Read, S. T. Reid, H. A Schölberg, S. W. Thompstone, W. B. Thomson, F. C. Tothill, J. C. White, and D H. Williams.

Mr. Edmund Owen has been appointed an additional examiner in surgery.—There are over 90 candidates for the Easter term examination in surgery and midwifery.—Tenders for the erection of the Medical School and Humphry Museum have been received. They amount to about £26,000 and their acceptance by the University is recommended by the building syndicate.—A studentship for research in botany will be vacant at Michaelmas in Caius College. Candidates must be Bachelors of Arts who have taken honours in the Natural Sciences Tripos, Part I. Names are to be sent to the Master of the College by Oct. 1st.

University of Durham.—At the third examination for the degree of Bachelor in Medicine, held in April, the following candidates satisfied the examiners:—

New Regulations—Anthony Bourchier Bradford, St. Thomas's Hospital; John Cooper, B Sc., F.C.S., John Wilfrid Caton, John Frederic Dover, and Guy Rowland East, College of Medicine, Newcastle-upon-Tyne; George Ernest Froggatt, Middlesex Hospital; Charles Wm. Menelaus Hope, College of Medicine, Newcastle-upon-Tyne; Wharram Henry Lamplough, Birmingham University; Charles Robert Lease, College of Medicine, Newcastle-upon-Tyne; Lucy Selina Molony, London School of Medicine for Women; Francis O'Neill, College of Medicine, Newcastle-upon-Tyne; Thomas Eben Pemberton, Birmingham University; Alfred Henry Proctor, College of Medicine, Newcastle-upon-Tyne; Percy Montgomery Rivaz, St. Bartholomew's Hospital; Thomas Rowell, William Greenwell Robson, Frederick William Ritson, and Basil Edward Spurgin, College of Medicine, Newcastle upon-Tyne; Charles Ravenscroft Stewart, St. George's Hospital; and Godfrey de Bec Turtle, King's College Hospital.

Royal Colleges of Physicians and Surgeons of Edinburgh and Faculty of Physicians and Surgeons of Glasgow.—At the spring sittings of the Triple Qualification Board of the Royal Colleges of Physicians and Surgeons of Glasgow held in Glasgow the following candidates passed the examinations as indicated:—

First Examination (five years' course).—Alexander Robb M'Intyre MacIlraith, William MacIlraith, John Watt, and Thomas Ormiston Wilson, Anderson's College Medical School; Hugh Graham Anderson, Kenneth James Logan Bannerman, William Watkin Neilson Knox, Ernest Adolphus Neal, and Joseph Lloyd Owen, St. Mungo's College; Stewart Ashwood Friar, Queen's College, Belfast; John Austin Joseph Crowley, Queen's College, Cork; James Augustus Robertson and William Frederick Clarke Walker, Royal Colleges, Edinburgh; and William Frederick Fismer Durr, University of Edinburgh.
First Examination (four years' course)—Morgan Evans Jones, Edinburgh School.
Second Examination (five years' course).—Katharine Mary Chapman, Queen Margaret College; John Priestley Newton and James Robert Robertson, St. Mungo's College; John Hutchison Fyfe and Edward Graham Taylor, Anderson's College; David Ahern, Queen's College, Cork; Emily Jane Polito, London School of Medicine for Women; Edward Percy Airth Richardson, School of Physic, Dublin; and James Cullen, Edinburgh University.
Second Examination (four years' course).—A. W. Macdonald, Glasgow University; and Lewis Edward Jarrett, Anderson's and Owens Colleges.
Third Examination.—Henry Rayner Helsby (with distinction), William George Macdonald, Thomas Joseph M'Kagney, Richard Lewis, Stanley Lister George D. Maclaine and Peter Carruthers Watt, St Mungo's College; David Moodie, Anderson's College; Hermann S. Christoffelsz and Hamilton Watson, Royal Colleges, Edinburgh; Gordon Stonehouse and William Dalziel Sutherland, Durham University College, Herbert Macmaster, Queen's College, Belfast; and Marion Ethel Unwin, London School of Medicine for Women.
Final Examination (and admitted Licentiates of the three coöperating authorities)—Stewart Jackson Farries, St. Mungo's College; George Russell Jarvie, Anderson's and St. Mungo's Colleges, John Blair Conner, Anderson's College; Angus MacLeod, Anderson's College and Edinburgh University; Shusil Kumar Roy, Glasgow University and Anderson's College; William Parsons Lappin, Dublin and Edinburgh Schools; James Herbert Spray, Yorkshire College, Leeds; Robert John Morgan, Queen's College, Belfast; Gordon Stonehouse and Joseph Edwin Cooper, Durham University Medical College; John Stewart, University of Glasgow; and John Joseph Minihan, Queen's College, Cork.

Royal University of Ireland.—The examiners have recommended that the following candidates be adjudged to have passed the under-mentioned examinations respectively:—

M.B., B.Ch., B.A.O. Degrees Examination.—Upper pass: Joseph G. Anderson, Queen's Colleges, Galway and Belfast; *Michael Curran, M.A., Roman Catholic University School of Medicine; *John P. Harold, Charing Cross Hospital, London; Archibald G. Heron, B.A., Queen's College, Belfast; *William M. P. Keogh, Roman Catholic University School of Medicine; Patrick Kerley, Roman Catholic University School of Medicine; John C. M'Carroll, Queen's College, Belfast, and Middlesex Hospital, London; *David M'Mordie, B.A., Queen's College, Belfast; *John O'Leary, Queen's College, Cork; and * John A. D. Radcliffe, Queen's College, Belfast.—*Pass:* Marion B. Andrews and William Barkley, Queen's College, Belfast; William C. Gavin, James Gorman, and Timothy J. Hartigan, Roman Catholic University School of Medicine; Robert Kennedy and Thomas Kennedy, Queen's College, Belfast; Michael J. M'Donough, Roman Catholic University School of Medicine; John M'Murray, Queen's College, Belfast; Peter G. Moran, Roman Catholic University School of Medicine; Chesnut Peacock, Queen's College, Belfast; Andrew J. Quirk, Roman Catholic University School of Medicine; Ernest F. Scott, Queen's College, Galway, and Edinburgh School of Medicine; and Hugh B. Smith, Queen's College, Belfast, and Middlesex Hospital, London.

The candidates marked thus * may present themselves for the further examination for honours.

M.D. Degree Examination.—Patrick T. O'Sullivan, M.B., B Ch., B.A.O., Queen's College, Cork, and private study; and Richard S. Ryce, M.B., B Ch., B.A.O., private study.

Doubtful Pickles.—A pickle and jam manufacturer of Exeter was prosecuted by the City Council on April 22nd for having in his possession for sale as food half a cask of red cabbage which was mouldy and rotten, some onions which were unfit for use, and six dozen bottles of pickles which were mildewed and stinking. The magistrates thought that the case was a proper one to bring forward, but the defendant was discharged as there was a doubt whether the articles in question were intended for food.

The Birmingham General Hospital and Sir John Holder—The Board of Management of the Birmingham General Hospital has recently decided that a portrait of Sir John Holder shall be painted in order to commemorate his services to the institution Sir John Holder is chairman of the Building Committee, by whose exertions the new general hospital was erected at a cost of over £200,000. A replica of the portrait is to be presented to Lady Holder. It is intended that the presentation shall be from those only who are interested in the hospital. The new building was opened free from debt in 1897 by Princess Christian.

Medical Fees.—At the St. Austell (Cornwall) County Court on April 23rd Mr. R. F. Stephens, M.R.C.S. Eng, L.S.A., sought to recover £18 from a man residing at Pentewan for professional services. Defendant admitted having had a long illness, but said that other members of the family were included in the account. His Honour Judge Granger said that there had not been the slightest attempt to pay the money, the fact being that some people thought that a medical man was the last person to be paid, and that because he was unwilling to sue them they could thus avoid the debt. An order was made for the payment of £16.

Sanitation in Rural Devonshire.—Mr. S. Noy Scott in his annual report for 1900 as medical officer of health of the Plympton (Devon) Rural District Council states that the majority of the cottages and isolated houses are provided with closets over cesspits. He frequently finds an owner willing to abolish a cesspit, but the occupier raises all sorts of objections which are sometimes so strong as to prevent the closet being used after it is erected. It is by no means uncommon for the earth-closet to be converted into a toolshed, storehouse, or used entirely as a wash-house. Mr. Noy Scott considers the earth-closet worked on the bucket system to be the best method of excrement disposal for isolated cottages in a rural district.

Freemasonry: *Æsculapius Lodge, No. 2410.*—The last meeting for the present Masonic year was held at the Hotel Cecil, Strand, on April 24th, Bro. Montague Cheale, M.R.C.S. Eng., D.P.H. Cantab., the Worshipful Master, being in the chair. Bro. Ernest Clarke, M.D. Lond., F R.C S. Eng., was unanimously elected Worshipful Master for the ensuing year. Bro. G. Danford Thomas, M.D. Brux., Coroner for London and Middlesex, was re-elected Treasurer, and Bro. Thomas Dutton, M.D. Durb., M.R C.P. Edin., was reappointed Secretary. The Secretary was instructed to send a letter of congratulation to Bro. Captain Percy J. Probyn, R.A.M.C., D.S.O., and Bro. W. Washbourn, M D., C.B., on the very distinguished and gallant services which they have rendered to their country in South Africa. Five guineas were voted to the British Medical Benevolent Fund. After all business had been transacted the lodge was closed. 33 of the members afterwards dined together.

CHORLEY JOINT HOSPITAL.—Mrs. Ainsworth of Rivington opened on April 27th a new hospital for infectious diseases at Heath Charnock. It has cost £17,000. The Chorley Corporation, the Adlington and Leyland District Council, and the Rural District Council have contributed towards this outlay. The hospital contains accommodation for 36 beds and is well situated.

HIS MAJESTY THE KING has consented to become the patron of the Church of England Temperance Society.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS

Military Drill for Boys and Youths.

The House of Lords has given its assent to the second reading of the Bill approved by the Headmasters' Conference for providing for boys and youths attending school a certain amount of military drill The representatives of the Government, while allowing the stage to be taken unchallenged, intimated that the measure will have to be submitted to rigid examination by the responsible departments. It may therefore be taken that the Bill will not be allowed to pass, at any rate in its present orm.

Isolation Hospitals Bill.

This important measure, which is designed mainly for the encouragement of isolation hospitals, has passed through the Grand Committee of the House of Commons on Law. Its provisions enable local authorities who have provided hospitals to transfer them, with the sanction of the Local Government Board, to county councils, and further authorise the latter bodies, again with the sanction of the Local Government Board, to make annual contributions towards the *maintenance or* extension of hospitals in the hands of local authorities The question of giving county councils power to lease hospitals was raised in the Grand Committee, and the President of the Local Government Board undertook to consider the matter before the report stage of the Bill. Mr. Long accepted an amendment enabling county councils to contribute to hospitals outside their area of jurisdiction. Some argument arose on the requirement of the consent of the Local Government Board as a condition of contribution by the county councils. Mr Long explained that this requirement is really in the interests of county councils, because, as he said, great pressure may *be brought to bear upon these bodies to contribute* to hospitals which are of an unsatisfactory character. He had taken the advice of the chief medical officer of the department on the *subject, who thought it* was absolutely necessary, in the interest of the public health, to have this requirement. Sir Walter Foster expressed his *concurrence in this* view and the Grand Committee decided to retain the requirement.

HOUSE OF COMMONS.

THURSDAY, APRIL 25TH.

Plague at the Cape.

[illegible] State for the Colonies whether [illegible] now raging in Cape Town and [illegible] ortions; whether the statistics *published of those* who had taken *this disease* and of those to whom it had proved fatal were confined to cases in Cape Town itself, and whether he could state the numbers in Cape Colony who had been affected with and who had succumbed to this disease and whether he [illegible]

with persons or things on board from which danger of infection is apprehended *Special* memoranda prepared by the medical officer of the Local Government Board with respect to plague have been issued to the local authorities and such further advice and instructions as may from time to time be found requisite will be issued to them. Where exceptional circumstances render it expedient it is my practice to send a medical inspector to confer with the port authorities and their officers I can assure the hon. Member that everything that can be done will be done to prevent the possibility of the spread of the disease.

FRIDAY, APRIL 26TH

Small pox in Lisburn.

Mr DALY asked the Chief Secretary to the Lord Lieutenant of Ireland whether he was aware that a serious outbreak of small pox had [illegible] enforced.

MONDAY, APRIL 29TH.

Small pox Precautions.

Sir JOHN LENG asked the Lord Advocate whether he would take steps to prevent manure being sent from Glasgow, where for months past small-pox had been prevalent, for distribution in the county of Fife from railway stations in burghs which held clean bills of health, or whether he would point out to the local authorities what means they could take to prevent the risk of spreading small pox by such distribution.—The LORD ADVOCATE replied: Unless there is a legal warrant for the assumptions made by the hon Member in the question which would require specific proof of injury or danger to health there exist no statutory powers under which such distribution can be prevented, having in view the judicial interpretation which has been put upon the provisions of Section 16, Sub section 5, of the Public Health Act, 1897.

Water Purchase Schemes.

Mr. PARKER asked the President of the Local Government Board whether the Government would consider favourably a proposal to authorise local authorities to compel water companies to sell their [illegible] answer to the first part of the question must be in the negative. With [illegible] onsent on [illegible] r the pro- [illegible] ther such [illegible] My hon. [illegible] as before [illegible] and I am [illegible]

Irish Whisky as Medicine.

In the course of a debate on the spirit duty Mr. TULLY put forward the novel proposition that Irish whisky has very little intoxicating qualities and is largely used for medicinal purposes

TUESDAY, APRIL 30TH.

Death Certification in Scotland.

Mr. WEIR asked the Lord Advocate having regard to the fact that in [illegible] not at present proposed to undertake.

Medical Practitioners and the Royal Naval Reserve.

Captain JESSEL asked the Secretary to the Admiralty if he would explain why the privilege of serving in the Royal Naval Reserve was denied to medical practitioners, and whether, in view of the duties which the surgeons of the royal navy would have to undertake in time of war, h[illegible] medical branch of the R[illegible] replied: This question [illegible] ralty on several occasions [illegible] form a medical branch of [illegible] be met by the entry of [illegible] cial regulations have been [illegible] universities and medical schools

HOURS OF LABOUR IN SHOPS.

EVIDENCE FROM SIR WILLIAM S. CHURCH AND SIR WILLIAM MAC CORMAC

On April 29th, Sir WILLIAM S CHURCH, President of the Royal College of Physicians of London, gave evidence before the Select [illegible] opinion of the committee such hours were injurious to health and in many cases, especially among women, caused illness. The then President of the Royal College of Physicians of London issued a circular to the me[illegible] consequence of this circular more [illegible] petition declaring the hours to be in[illegible] House of Commons to pass into law [illegible] by Sir John Lubbock (now Lord Ave[illegible] learned in evidence that these long [illegible] had been increased, and he wished to know from Sir William Church whether he concurred in the views of these 300 medical men that such hours were grievously injurious to health.—Sir WILLIAM CHURCH replied that it was self evident that 14 hours per day of confinement in a shop must be prejudicial to those exposed to it. He was not sufficiently acquainted with the subject to know how far it was possible or desirable that individual labour should be controlled by the State and he should therefore desire to confine himself to the medical aspects of the case. He was strongly of opinion that the present long hours in shops were injurious to health.—In reply to the Earl of HARDWICKE, Sir WILLIAM CHURCH said that he was not sufficiently acquainted with the subject to express an opinion on Lord Avebury's Bill for the earlier closing of shops. There were other things besides the hours of labour to consider. For instance, there was the condition of the buildings, their ventilation, and other matters which he thought might be regulated rather than that the State should intervene and set a particular hour at which closing should take place. It had occurred to him that in the case of small shops, say in provincial towns, the business was managed by members of the family who were not continually in the shop throughout the hours of opening. To lay down a hard-and-fast law as to closing might be rather harsh upon the occupiers of such shops. But, of course, it was merely an opinion.—The CHAIRMAN explained to Sir William Church that in his Bill the hours of closing were left to the decision of the majority of the local shopkeepers and were not laid down by enactment, and further that it had been brought out in evidence that the small shopkeepers were themselves anxious for some measure of the kind.—Sir WILLIAM CHURCH, in answer to the CHAIRMAN, said that he had no hesitation in expressing to the committee his opinion that there were certain forms of weakness and disease which were extremely aggravated by long hours of more or less—not sedentary but not active—employment. This was especially the case when the shops were lighted by gas. The evil was not merely the presence in the shop, but the absence of opportunities for getting fresh air and exercise.—In reply to the Bishop of WINCHESTER, Sir WILLIAM CHURCH said that there were two great classes of ailments which were aggravated by work like that of shop assistants. There was the class which came within the cognisance of surgeons, and those physicians who practised more especially among the diseases of women. But there was another great group which fell to the ordinary physician and of which they saw a great deal in the London hospitals—that was the anæmic condition produced partly by the long hours and still more by the confinement which such an employment as that of a shop assistant entailed. These patients did not get sufficient opportunity of being in the fresh air and sunlight, and their condition was greatly aggravated by late hours at night. It was the confinement rather than the labour which caused the mischief. Personally he had not paid much attention to the question of legislation, but he should not have thought that the necessity was greater than in the case of other workers, such as clerks and people of that sort, in the big towns. He was, however, only speaking of the evils produced from confinement in a more or less contaminated atmosphere, and he said that the detriment to the shop assistants was very much akin to the detriment which fell upon other workers. Of course, the longer the hours the greater the detriment.

At the same sitting of the Committee Sir WILLIAM MAC CORMAC, President of the Royal College of Surgeons of England, was examined. His evidence was to the effect that such long hours of labour in shops as had been brought to the notice of the Committee tended very much to lower the vitality of the workers and rendered them more liable than they otherwise would be to attacks of different forms of disease. The night hours were spent in an atmosphere very prejudicial to health, an atmosphere which contributed largely to the production of various forms of tubercle. He held strongly the opinion that moral and physical well-being depended largely upon one another. If the physical condition of a man or woman was affected, the moral nature must also suffer to some extent. He was of opinion that this subject was worthy of the attention of the Government and of Parliament all the more because, although it could not be said in one sense to be urgent, the evil was insidious, gradual, and progressive in its effect. From generation to generation the population would become feebler if the evil were not resisted. The question of the work being a strain was not the point, but rather the conditions in which the work was carried on.

ROYAL COMMISSION ON ARSENICAL POISONING.

FRIDAY, APRIL 26TH.

THE Royal Commission on Arsenical Poisoning resumed its sittings in London to-day and examined a number of witnesses. The members of the Commission are Lord Kelvin (Chairman), Sir William Hart Dyke, M.P., Sir William S. Church, Professor Thorpe, Dr. Whitelegge, and Mr. Cosmo Bonsor, with Dr. G. S. Buchanan as secretary.

Mr. HENRY A. TAYLOR, of Messrs. H. A. and D. Taylor, maltsters, Ware and Bishop Stortford, gave evidence as to the processes of malt-making. He expressed some objection to the habit of brushing malt, his view being that it gave an artificial value and made mouldy malt look as well as good malt. His firm, he said, used only anthracite coal, and from the results of analysis he gathered that the best anthracite coal contained little or no arsenic. He did not think, however, that anyone could guarantee any coal to be absolutely free from arsenic, and if the coal could not be guaranteed neither could the malt made with it.

Mr. CORNELIUS O'SULLIVAN, chief brewer and chemist to Messrs. Bass, Ratcliff, and Gretton, Burton, was the next witness, and in the course of his examination he said that when it became known, through the daily pap[illegible] about Nov. 23rd last, that arsenic was found in some beers [illegible] source whence it was derived was clearly indicated, [illegible] able as a precautionary measure by the Burton [illegible] doubt, with the brewers all over the country, [illegible] which arsenic could be introduced into beer [illegible] ned, and as the sugars of different kinds em[illegible] were the sources chiefly implicated, at least to begin with, the use of these was discontinued in most cases at once, although examinations had since shown the precaution unnecessary; the sugars, as a rule, had been found free from arsenic, or at least practically so. Further, it was considered desirable that all beers in stock should be examined by the local staffs and by outside authorities. Burton brewers had, as a rule, competent chemists on their staff, and those who had not employed such men outside. The general results were that the beers were declared practically free from arsenic. But when developments took place and when the academical side of the question took the place of the practical one it was found that there was yet something to learn as to the presence of minute quantities of arsenic in beer and as to the sources thereof. It was observed that in some of the beers these minute quantities of arsenic were greater than in others. The cause of this was inquired into and it was soon established that malts dried with a proportion of gas-coke contained much more arsenic than malts dried with a proportion of oven-coke. These facts were confirmed by outside observation. The use of these malts was at once discontinued and as a further precautionary measure even oven-coke was as a rule discarded and the cleanest anthracite alone employed. For many years Burton brewers had used little or no gas-coke, for the simple reason that it imparted a smoky disagreeable flavour to the malt, which was carried to the beer. Of course, as far as practicable, they bought no such malt. But inasmuch as outside maltsters recognised this fact care was taken by them to eliminate the flavour by selecting the gas-coke they employed, so that in most cases it was impossible from the odour alone to distinguish gas-coke dried malt from any other. It appeared, however, that the selection of the non-flavour-giving varieties of gas coke did not also eliminate the arsenic-containing ones. Hence it was deemed desirable to discontinue the use of all outside malts until they were tested and found to be practically free from arsenic. All these precautions notwithstanding, it was still observed that all the beers were not absolutely free from arsenic when the rigorous test was applied; quantities varying between 1-100th to 1-500th grain per gallon and practical purity were certified to by competent authorities. He might mention, as an example, that he had had examined by a leading authority, with whom his own observations were in broad agreement, 32 samples of different beers, the products of some of the chief breweries of England, Ireland, and Scotland, and of Holland, with the results that they were found to contain quantities of arsenic trioxide varying between 1 50th of a grain per gallon and practically *nil*. The *nil* samples amounted to three in the 32, and he believed two of these were part sugar beers, or beers brewed with part grits, made from flaked maize or rice. This being the case the cause of it and the means of obviating it had to be sought for. An examination of malt dust—i.e., the dust obtained on screening and fanning the malt after the grosser rootlets had been eliminated—showed that it contained much more arsenic than the malt itself; hence it had been decided to put up apparatus containing brushes and screens of the highest efficiency. They would still further reduce the infinitesimal quantities of arsenic in beers, but he could not hope that they would be thereby absolutely eliminated. Hops had also been carefully examined and although many growths had to be rejected in consequence of the large quantity of free sulphur they contained, very few samples had been found to contain arsenic—in fact, they might so far be said to be absolutely free. As, however, sulphur washes were used during their growth, as they were frequently treated with free sulphur when maturing, and as sulphur was used in kiln fires during drying, it would not be surprising if hops, too, were on investigation found to supply their quota, however small, of arsenic to beers. This was also a contingency against which brewers would, of course, have to guard. He had indicated the precautions taken which were considered desirable with the view of eliminating the [illegible] even minute quantities of arsenic into beers and [illegible] expected. All the precautions take[illegible] but he could not say that they had so far effected complete elimination in all cases. He believed it could be shown that beer must have contained minute quantities of arsenic from time immemorial, but he believed there was no evidence that any effects injurious to health attributable to this quantity of arsenic had so far been recorded. Methods for the detection of arsenic in beer were given in analysts' books, but it was fairly clear that this arsenic was supposed to be introduced by accident or malicious intent. He did not wish to deal with the methods of determination of minute quantities of arsenic, but he must say that he believed that they were in some hands broadly satisfactory as far as they went. He was, however, strongly of opinion that this matter should be treated as the Water Commission treated the pure water question—that was, institute an inquiry into the matter with Governmental authority so that practical methods might be establishe[illegible] ensured.

ader, Anderson's
and Edinburgh Univ
versity and Anderson's
and Edinburgh Schools;
Leeds, Robert John Morg
Stonehouse and Joseph Edw

Sir T. [illegible] made a statement to the Commissioners which will be found on page 1257.

In reply to questions addressed to him by Sir WILLIAM CHURCH, Sir T. LAUDER BRUNTON said that while as a general rule women could take less arsenic than men it might be in the case of the Manchester epidemic that the women consumed more beer than the men did and perhaps were always supplied with the same kind of beer. It was possible, too, that the greater physical labour of the men led in their case to more rapid elimination of the arsenic. Asked whether anything had occurred to him as explaining the delay of the medical profession generally in recognising that this disease was due to arsenical p[illegible] to alcohol or other poisoning, Sir T Lauder Brunton [illegible] be their familiarity with cases of neurit[illegible] with alcohol and nothing else. He once came across rather a curious observation in regard to different kinds of wines. It was made to him by the landlord of a hotel above Montreux and it was to the effect that the people in the Rhone Valley who drank the white wine became affected with tremors, whereas the people who drank the red wine in the same locality did not suffer in the same way. It was suggested to him that the white wine was often more or less sweetened with glycerine and that the glycerine might contain arsenic, and these people who drank the white wine might really be suffering from arsenical tremors. With regard to guarantees of purity he thought that practically what was wanted in this country was something analogous to the Gesundheitsrath in Germany—something in the nature of a Board of Public Health. This board should have at least one member thoroughly acquainted with the management of public health, a thoroughly trained chemist, a bacteriologist, a pharmacologist, and a medical man. Probably it would be well to have two representatives of each branch. It would be a board of reference and he supposed would come into relations with the Local Government Board.

By Professor THORPE: If such a board, after taking such evidence [illegible] such questions should be referred.

By Dr. WHITELEGGE: He had been told that British barley contained a much larger quantity of nitrogenous substances than foreign barley, and that if malt were made with British barley without the addition of glucose to counterbalance the nitrogenous matter they were bound to have a very heavy beer.

The Commission then adjourned.

SATURDAY, APRIL 27TH.

The Commission met again to-day and examined several more witnesses

Mr. RICHARD CHARLES GARTON, of Messrs. Garton, Hill, and Co., brewing-sugar manufacturers, Battersea, said that his father, who [illegible] first to introduce into this country [illegible] that at the present time the firm [illegible] brewing sugars manufactured in this country. In time the firm began the making of glucose and afterwards of a brewing sugar known as dextrin maltose. These three articles were produced by the action of sulphuric acid either on cane sugar or starch, the sulphuric acid used being in all cases wholly removed as soon as the action had proceeded far enough by being neutralised by the addition of a base [illegible] insoluble compound. The [illegible] phuric acid. The propor- [illegible] ane sugar varied from ¼ to [illegible] in the raw sugar. As to [illegible] conversion depended upon [illegible] of the starchy material employed. It would require from 4½ per cent. in the case of starch made from maize up to 8 per cent. for sago and tapioca flour. The average percentage of acid used by his firm in the making of glucose was 6½ per cent. The dextrin-maltose was substantially a glucose and was made in the same way, the only difference being that the time allowed for the operation was less. At the commencement the firm only used brimstone acid because the liability of pyrites acid to contain arsenic was, of course, well known to them as to every manufacturer who used sulphuric acid for any purpose [illegible] their sulphuric acid suggested that [illegible] acid, showing them that it was as pure as brimstone acid. They satisfied themselves by means of careful investigation that this was so and the firm in question were allowed to supply purified pyrites acid which they had repeatedly guaranteed to be free from arsenic. Witness had perfect confidence in this firm, but his own firm still thought it right to keep a check on the supply by examining every barge-load of acid and periodically testing for each specific impurity. The difference between sulphuric acid free from arsenic and not free from it was so well known to every manufacturer of the acid, or user, that when dealing with a firm of good standing [illegible] with th[illegible] were in[illegible] substitutes for better material. One or other of them was used by all the best brewers in the kingdom after [illegible] maltose which was formed in the mash tun and by an equally pure process. They were sugars of the same type as the maltose and in every sense as suitable for the purpose. But they had the great advantage that they could be made free from those types of nitrogenous matter found in barley malt which constituted one of the greatest difficulties in brewing English beer, their removal necessitating prolonged storage of the beer and the employment of much hop. It thus put a definite material in the hands of the scientific brewer by which he could obtain complete control over the article produced. With regard to the invert sugar, it was a far more expensive article for the brewer than the cane sugar itself, and the whole manufacture was for the purpose of giving him a more readily fermentable sugar than cane sugar, which cannot be employed without materially weakening the yeast. So important were those properties that all modern ale required their use. As compared with malt there was no economy in the use of invert, as a pound of extract obtained from invert was about the same cost as that obtained from malt and yet three-quarters of the total production of his firm consisted of this substance. It was for the results of the brewing, and not for lessening the cost of the materials, that it was employed.

Dr THORNE, chemist to Messrs. Garton, Hill, and Co., stated, in reply to Sir William Church, that he had never found selenium in [illegible] s of it in brimstone [illegible] selenium in pyrites [illegible]

[illegible] the Mill-road Infir[illegible]pool, and consulting physician to the West Derby Union Workhouse, said that the recent epidemic of arsenical poisoning in Liverpool did not seem to have been so extensive as in Manchester, although some of the cases had been of a severe type. During the last three years, out of 12,823 patients admitted into Mill-road Infirmary under his care there had been 226 cases of peripheral neuritis, of which number 153 had presented symptoms which might be attributed to arsenic. Of these 226 cases of peripheral neuritis 51 died, the apparent cause of death being general asthenia, with cardiac failure in most of the cases. Witness presented a table showing the number of cases of [illegible] '98, 1899, 1900, and [illegible] '98 there were 20 cases; in 1899, 54; in 1900, 143; and in the period of 1901, 23 cases. Reviewing the epidemic as a whole and after very careful observation he had noticed th[illegible] Th[illegible] the [illegible] dif[illegible] cas[illegible] ac[illegible] ac[illegible] rec[illegible] recorded. 2.—The chronic cases. These formed by far the greater number, and on admission presented the usual symptoms of peripheral neuritis and had the appearance of some slow and chronic form of poisoning attributed at that time to alcohol. Although he had been in the habit of seeing cases of alcoholic neuritis for the last 15 years he had not noticed any difference in the character of the symptoms in patients admitted into this infirmary until the beginning of August, when a few of the patients showed well-marked general pigmentation of the skin, which for want of a better diagnosis was attributed to Addison's disease. During the next three months six cases were diagnosed as Addison's disease, although it was felt at the time that the cases were not typical of that affection. Of these six cases three died and on post-mortem examination no evidences whatever were found to confirm the diagnosis of Addison's disease, on the contrary, the cause of death seemed to be alcoholic neuritis. It was not until the paper of Dr. Reynolds appeared at the end of November that his attention was directed to arsenic, and then, of course, the epidemic was explained and steps were at once taken to prevent its spread. With regard to the cause of alcoholic neuritis he was convinced, from a very careful observation of a very large number of cases, that beer and porter were the general drinks consumed, by far the greater number being due to beer alone, but he had certainly seen cases of undoubted alcoholic neuritis in which the patients had only taken brandy or whisky. With regard to this point his experience whilst in charge of a large Scotch hospital for four years was of interest, as during the whole of that time he only saw four cases of peripheral alcoholic neuritis, and it was well known that the popular drink in Scotland was whisky. He believed also that the serious lesions were caused by the continual drinking of moderate quantities every day for l[illegible] sudden outbursts where large quan[illegible]creted. The great majority of cases [illegible]urred amongst women of the poorer classes, and in Liverpool it was the custom for these women to congregate in each other's houses and send for cheap beer during the whole of the day. By consuming it off the premises they got what was called "the long pull," which meant that they got a good deal more beer than they asked for. In some of the samples of beer examined by the public analyst of Liverpool as much as one and a half grains of arsenic to the gallon were found. This, of course, was an extreme amount, and the general adulteration varied from one-thirtieth grain to one-tenth grain of arsenic per gallon. In one particular case of acute arsenical poisoning a man who had previously been a teetotaler for six months drank 42 pints of beer in two days. On the second day afterwards he was seized with all the symptoms of acute poisoning, and on admission to hospital was very seriously ill. On examination of his urine arsenic was found in large [illegible] rapidly and within a fortnigh[illegible]is was an example of a larg[illegible] into the system in a short p[illegible] the cases small quantities of arsenic had been taken spread over a prolonged period. In many cases patients would only admit to having taken small quan[illegible] had been [illegible] not neces[illegible] points whi[illegible]

By Dr. W[illegible] fatal. In some of the cases the paralysis apparently was permanent, at any rate, it was very inveterate and had not yet shown any improvement

By the CHAIRMAN: In his opinion, arsenic accentuated to a marked degree the symptoms of alcohol. There were, as it were, two types—one which arose from alcoholic excess and one which was increased in its intensity by the presence of arsenic. Very small quantities of arsenic in beer would produce severe symptoms.

By Sir WILLIAM CHURCH: In the case of the man who had been teetotal for six months and afterwards drank 42 pints of beer in two days the symptoms were gastro-intestinal and sensory, the latter being the most marked. There was no paralysis in his case.

Dr. RAW then went on to say that two kinds of pigmentation were met with in arsenical poisoning—one, which was a general darkening of the whole surface of the body, did not desquamate. This appeared slowly and disappeared very slowly. The other form was one in which the skin became dark in colour rapidly, especially attacking the flexures, the breast, and the front of the abdomen. The epidermis desquamated freely and could be pulled off, leaving a normally coloured skin underneath. The first variety of pigmentation was met with in the earlier part of the epidemic, the second class only towards the end of the epidemic, and to his mind it seemed to suggest some rather serious increase of the contamination of beer. He had noticed in two cases under his care at present a complete relapse of all the symptoms. The patients were apparently well, pain had disappeared, and the desquamation of the skin had been complete when, without any warning, a fresh attack of neuritis developed, as acute as before, with a general discolouration and desquamation of the skin.

By the CHAIRMAN: The relapse took place without more drinking. In both these cases arsenic was found in the urine shortly after admission. The urine was examined at the time of the relapse and no arsenic was found then. [illegible] undoubted cases where the disease was produced entirely by spirits. He had also seen cases of peripheral neuritis caused by the medicinal administration of arsenic in disease; these symptoms, however, had quickly passed off on the cessation of the drug. After a careful observation of the epidemic he had come to the conclusion that the sensory symptoms were more pronounced in arsenical neuritis than in ordinary alcoholic neuritis and, although very severe at first, they soon passed away. The motor symptoms tended more quickly to recovery under treatment than the purely alcoholic cases, and most of his patients had completely recovered, although a few were making little progress. When one considered the enormous number of people who had been drinking this beer, which had in some cases in Liverpool contained one and a half grains of arsenic to the gallon, one was bound to think that some people were more susceptible to arsenic than others, as only a very small proportion had been attacked. It was apparent, too, that arsenic was a cumulative poison to some extent. It would seem also that the action of the arsenic in the system was more virulent in the presence of alcohol than when given alone So far as Liverpool was concerned the epidemic was at an end and he had not had a new case of arsenical poisoning during the last nine weeks. It was just possible that with greater care in the manufacture of beer alcoholic neuritis might become much less frequent and he had noticed that since the epidemic of arsenical poisoning in Liverpool the amount of alcoholism had much decreased, a state of matters which he sincerely hoped would continue.

By the Chairman: His opinion was that the epidemic had given the community of Liverpool a great fright and alcoholism had been reduced in consequence.

By Dr. Whitelegge: He regarded alcoholic neuritis as existing quite apart from arsenic. In his opinion it had reference more to beer and porter than to spirits and he thought that there would be alcoholic neuritis even if there were no arsenic in beer or porter.

By Sir William Church: He could not account for there being more alcoholic neuritis in Liverpool and Manchester than in London, which also had a beer-drinking population. He would not like to express the opinion that the people of Liverpool and Manchester drank more than the people of London.

Mr. George E Davis, chemical engineer, and consulting chemist of the Manchester Technical Laboratory, the last witness examined, gave evidence as to the sulphuric acid industry. Among other things, he said that when the sulphuric acid was sufficiently diluted and kept cool it was possible to eliminate the whole of the arsenic if the operation was properly conducted. Such acid was even better than acid made from brimstone for many purposes, as the sulphuretted hydrogen also purged the acid of its nitrous contents, which were very detrimental in some processes, such as the manufacture of aerated waters and the preparation of some colouring matters.

BOOKS, ETC., RECEIVED.

Bale, Sons, and Danielsson, Great Titchfield-street, London.
- Records from General Practice. By J. K. Barton, M.R.C.P., &c. Price 2*s.* 6*d.*

Bell and Sons, Covent-garden, London.
- The Penalty of Death; or, the Problem of Capital Punishment. By Josiah Oldfield, M.A., B.C L., L.R.C.P., &c. Price 3*s.* 6*d.*

Carré et C. Naud, Rue Racine, Paris.
- L'Evolution du Pigment. By Dr. C. Bohn. Price 2 francs.

Griffin and Company, Exeter-street, Strand, London.
- A Short Manual of Inorganic Chemistry. By A. Dupré, Ph.D., F.R S., &c., and H. Wilson Hake, Ph.D., F.I.C., &c. Third Edition. Price 9*s.*
- Pernicious Anæmia: its Pathology, Septic Origin, Symptoms, Diagnosis, and Treatment. By William Hunter, M.D. Edin., F.R.C.P. Lond , &c. Price 24*s.*

King and Son, Great Smith-street, London.
- The Economic Disposal of Town's Refuse. By W. F. Goodrich, A.I.M.E. Price 10*s.* 6*d.* net.

Lippincott Company, Philadelphia and London.
- The History of Medicine in the United States. By F. R. Packard, M.D. Price 21*s.*

Macdougall, Alex., Mitchell-street, Glasgow.
- Transactions of the Glasgow Obstetrical and Gynæcological Society. Vol. ii. Price not stated.

Masson et Cie., Boulevard St. Germain, Paris.
- Physiologie, Normale et Pathologique, du Pancréas. By E. Hédon. Price 2 francs 50 cents.
- Traité de Chirurgie d'Urgence. By Félix Lejars. Third Edition. Price 25 francs.

Saunders and Company, London and Philadelphia.
- Anatomical Atlas of Obstetrics, with special reference to Diagnosis and Treatment. By Dr. Oskar Schaeffer. Edited by J. Clifton Edgar, A.M., M D. Price 13*s.* net.
- Atlas and Epitome of Labour and Operative Obstetrics. By Dr. Oskar Schaeffer. Edited by J. Clifton Edgar, A.M., M.D. Price 9*s.*
- A Text-book of the Practice of Medicine. By Dr. Hermann Eichhorst. Edited by Augustus A. Eshner, M.D. In two vols. Price 26*s.*

Scott, Walter, Paternoster-square, London.
- The Mediterranean Race: a Study of the Origin of European Peoples. By G. Sergi. Price 6*s.*

Smith, Elder, and Co., Waterloo-place, London.
- Surgical Experiences in South Africa, 1899–1900, being mainly a Clinical Study of the Nature and Effects of Injuries produced by Bullets of Small Calibre. By G. H. Makins, F.R.C.S. Price 16*s.*

Southland Times Company, Invercargill, New Zealand.
- Standing Orders and Bye-laws of the Borough of Invercargill, N.Z. Price not stated.

Stock, Elliot, Paternoster-row, London.
- Modern Natural Theology. By F. J. Gant, F.R.C.S. Price not stated.

Thieme, Georg, Leipzig.
- Handbuch der Physikalischen Therapie. By Dr. A. Goldscheider and Dr. Paul Jacob. Price 15 marks.

Townsend and Son, London and Exeter.
- Thirty-one Twenty-four Hour Charts for Private Nurses. By Florence White. Price 1*s.*

University Press, Cambridge, Mass., U.S.A.
- An Introduction to Physiology. By W. T. Porter, M.D. Price not stated.

Unwin, T. Fisher, Paternoster-square, London.
- Manners for Girls. By Mrs. Humphry. Price 1*s.*

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to The Lancet *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

Annis, E. G., L R.C.P. Lond., M.R.C.S , has been appointed Medical Officer of Health, Borough of Greenwich.

Barron, H. T., M.D. Lond., M.R.C.S., L.R.C.P., has been appointed Clinical Assistant to the Royal Eye Hospital, Southwark, London.

Bowker, G., L R.C.P., L R C.S. Edin., D.P.H. Vict., has been appointed Medical Officer of Health, Sutton Urban District, Surrey, vice E. L. Jacob, resigned.

Bradshaw, Thomas R , B A., M.D. Dubl., M.R.C.P. Lond., has been appointed Consulting Physician to the Samaritan Hospital for Women, Liverpool.

Cairns, L M., M.B , C M. Edin., has been appointed District Medical Officer, Huddersfield Union, vice J. E. Richards, resigned.

Cann, T. P., M.B , B S. Durh., has been appointed Medical Officer of Health, Newhaven Urban District, vice A. G. Mossop, resigned.

Connell, Arthur, M.R.C.S., L.R.C.P. Lond., F.R.C.S. Edin., has been appointed Honorary Surgeon to the Royal Infirmary, Sheffield, vice Arthur Hallam, resigned.

Dawson, W. E , L.R.C P., L.S.A , has been appointed House Surgeon to Victoria Hospital, Worksop (the Dukeries).

Dunn, R. A., M.D. Durh., B.S., L.R C.P. Lond., M.R.C.S , has been appointed Medical Officer of Health, East Herts and Essex Combined Districts, vice J. A. Turner, resigned.

Eames, E. S B , L.R.C.P. Lond., M.R.C.S , has been appointed District Medical Officer, Honiton Union, vice E. F. N. Currey, resigned.

Eglinton, G. W., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed Medical Officer of Health, Wells Rural District, vice J. C. Smyth, resigned.

Evans, D. R. Powell, L R.C.P. Lond., M.R.C.S., L S.A. Lond., has been appointed Public Vaccinator for the North Wimbledon District of the Kingston Union, vice F. W. Parsons, resigned.

Fryer, G. E., L.R.C.P Lond., M.R.C.S., has been appointed Medical Officer of Health, Urmston Rural District.

Galloway, Alexander, L.R.C.P., L.R.C.S Edin., L.F.P.S. Glasg., has been appointed Medical Officer to the South Shields District, South Shields Union.

Gardiner, A., M.B , C.M. Aberd., has been appointed District Medical Officer, Freebridge Lynn Union, vice W. G. R. Macauley, resigned.

Hick, H., L.R C.P. Edin., M.R.C.S., has been appointed Medical Officer of Health, Romney Marsh Rural District.

Hingston, Charles Albert, M.D., B Sc. Lond., M.R.C.S., has been re-appointed Honorary Physician to the Crownhill Convalescent Home, near Plymouth.

Hogan, B., L.S.A., has been appointed District Medical Officer, Poplar Union, vice E. A. Lightburne, deceased.

Hunt, J. W., M.B. Lond., L.R C.P., M.R.C.S., has been appointed Second Assistant Medical Officer to the Somerset Hospital, Cape Town, South Africa.

Hunter, W. L , M.D., B.Ch. Dubl., D.P.H., has been re-appointed Medical Officer of Health, Borough of Pudsey.

Huskie, James, M.B , C.M. Edin., has been appointed Certifying Surgeon under the Factory Acts for the Crosby District of Lancashire.

Ivens, Francis, M.B. Lond., has been appointed Clinical Pathologist and Assistant Pathologist to the Royal Free Hospital, London.

Lister, Thomas D., M.D. Lond., M R.C.P. Lond., F.R.C.S Eng., has been appointed Physician to the City Dispensary, vice Ivens Spriggs, resigned.

Maund, J. H., L.R.C P. Lond., M.R.C.S., has been appointed Medical Officer of Health, Newmarket Urban District, vice W. Hutchinson, resigned.

Montgomery, Sydney H. R., M.B., B.Ch. Irel., has been appointed Medical Superintendent to the West Australian Government's Lunatic Asylum, Fremantle, Western Australia.

Montgomery, W. P., M.B., B.S. Lond , F.R.C.S. Eng., has been appointed Visiting Medical Officer at the Crumpsall Workhouse, Manchester Union.

Moore, P. W., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed District Medical Officer, Shardlow Union, vice W. M. Knipe, resigned.

Nash, J. T. C., M.D. Edin., D.P.H. Cantab., has been appointed Acting Professor of Hygiene at King's College, London, during the absence of Professor Simpson in South Africa.

Perrin, Thos., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer at the Infirmary, Parish of St. Mary, Lambeth, vice R. H. Tompsett.

Price, Frederick W., M.B., C.M. Edin., has been appointed Pathologist to the City of London Hospital for Diseases of the Chest, Victoria-park, E.

REES, J. A., M.B., C.M. Edin., has been appointed District Medical Officer, Aberystwith Union, vice J. E. Hughes, resigned.

ROBERTS, E. G., L.R.C.P., L.R.C.S. Irel., has been appointed District Medical Officer, Anglesey Union, vice W. Thomas, resigned.

SLATTERY, J. B., M.B., Ch.M. Irel., has been appointed Assistant Medical Officer at the Infirmary, Woolwich Union, vice C. C. W. Mays, resigned.

SMITH, R., M.B., C.M. Aberd., D.P.H., has been appointed Medical Officer of Health, Borough of Rawtenstall, vice J. McNaught, deceased.

STURDY, H. C., M.B., B.S., has been appointed Junior House Physician to the City of London Hospital for Diseases of the Chest, Victoria-park, E.

SPROULL, JAMES, M.B., C.M. Glasg., has been appointed Medical Officer of Health, Luddenden Foot Urban District, vice T. Crowther, resigned.

WILLIAMSON, OLIVER K., M.A., M.B., B.C. Cantab., M.R.C.P. Lond., has been appointed Physician to Out-patients to the City of London Hospital for Diseases of the Chest, Victoria-park, E.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon, single. Salary £100 per annum, with board and residence.

BURTON-ON-TRENT INFIRMARY.—House Surgeon. Salary £150 the first year and £170 the second year, with furnished rooms, coal, and gas free.

BURY INFIRMARY.—Senior and Junior House Surgeon. Salary, Senior £100, Junior £80, with residence and attendance.

CANCER HOSPITAL, Fulham-road, S.W.—House Surgeon. Salary £70 per annum, with board and residence.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Resident Medical Officer, unmarried. Salary £60 per annum. Also Clinical Assistant for three months, on payment of £8 8s.

CHELTENHAM GENERAL HOSPITAL.—Junior House Surgeon, unmarried. Salary £60 per annum, with board, lodging, and washing.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.—Resident House Surgeon. Salary £110 per year, with board, apartments, and laundress.

COUNTY ASYLUM, Prestwich, Manchester.—Assistant Medical Officer, unmarried. Salary £150 per annum, increasing to £250, with board, apartments, and washing.

COUNTY ASYLUM, Whittingham, Lancashire.—Junior Assistant Medical Officer, unmarried. Salary £150, increasing to £200, and on promotion to £250, with furnished apartments, board, washing, and attendance.

DENTAL HOSPITAL OF LONDON MEDICAL SCHOOL.—Medical Tutor. Salary £40 a year.

DERBY BOROUGH ASYLUM.—Assistant Medical Officer. Salary £120 per annum, with board and washing.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—Assistant House Surgeon. Salary £50 per annum, with furnished apartments, board, and washing.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—Assistant Surgeon.

GENERAL INFIRMARY, Leeds.—Resident Obstetric Officer for six or twelve months. Also House Surgeon for twelve months. Also House Physician for six months. Board, lodging, and washing in each case.

GREAT NORTHERN HOSPITAL, Holloway-road, N.—Casualty Officer for six months with eligibility for re-appointment. Salary at the rate of £52 10s. per annum.

HOLLOWAY AND NORTH ISLINGTON DISPENSARY.—Two Honorary Medical Officers.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Assistant Resident Medical Officer. Salary £100 per annum, with board and residence.

HOSPITAL FOR WOMEN, Soho-square, London, W.—House Physician for six months. Salary £30.

HULL ROYAL INFIRMARY.—Junior Assistant House Surgeon. Salary £60, with board and lodging.

ISLE OF WIGHT COUNTY ASYLUM, near Newport, I.W.—Assistant Medical Officer. Salary £120, rising £10 yearly to £150, with board, lodging, washing, &c.

LIVERPOOL STANLEY HOSPITAL.—Third House Surgeon. Salary £70, with board, residence, &c.

MANCHESTER EAR HOSPITAL, 23, Byrom-street.—Clinical Clerkship for a Senior Student for six months. Honorarium 10 guineas.

METROPOLITAN ASYLUMS BOARD ASYLUM, Leavesden, near Watford, Herts.—Assistant Medical Officer. Salary £150 per annum, rising at the discretion of the Asylums Committee to £170, with rations, lodging, attendance, and washing.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Junior Resident Medical Officer. Salary £80 per annum, with board, attendance, and washing.

NOTTINGHAM GENERAL INFIRMARY.—Senior Resident Surgeon. Salary £200 per annum, increasing by £15 every year. Also two Assistant Resident Surgeons. Salaries £100 per annum each, increasing by £10 every year, furnished apartments, attendance, light, and fuel. Unmarried.

PARISH COUNCIL OF APPLECROSS, Loch Torridon District.—Medical Officer and Vaccinator. Salary £95, free house accommodation and other emoluments.

PARISH OF ST. MATTHEW, Bethnal-green.—Clinical Assistant, unmarried, for the Infirmary at Cambridge-road, N.E., for three months, with possible extension. Salary at the rate of £80 per annum, with board, lodging, and washing.

ROTHERHAM HOSPITAL.—Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon for six months, with board, lodging, and washing. Salary at the rate of £50 per annum.

ROYAL CORNWALL INFIRMARY.—House Surgeon (unmarried). Salary £100, increasing by £10 a year, with board (excluding stimulants) and apartments.

ROYAL PORTSMOUTH HOSPITAL.—Assistant House Surgeon. Salary £50 per annum, with board and residence.

ROYAL SEA BATHING HOSPITAL, Margate.—Assistant Resident Surgeon. Salary £60 per annum, with board and residence.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Assistant House Surgeon. Salary £50, with board, residence, and laundry.

ST. ANDREW'S HOSPITAL FOR MENTAL DISEASES, Northampton.—Assistant Medical Officer for six months. Salary £3 3s. a week, with board, lodging, and washing.

ST. MARYLEBONE INFIRMARY, Notting-hill, W.—Second Assistant Medical Officer. Salary at the rate of £80 per annum, with board, &c.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion-square, W.C.—Clinical Assistant for three months.

SWANSEA GENERAL AND EYE HOSPITAL.—Resident Medical Officer. Salary £75 per annum, with board, apartments, washing, and attendance.

THE CHIEF INSPECTOR OF FACTORIES gives notice of a Vacancy as Certifying Surgeon under the Factory Acts at Parbold, in the County of Lancaster.

WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, &c., 73, Welbeck-street, London, W.—Medical Registrar. Honorarium 50 guineas per annum.

WEST HAM BOROUGH ASYLUM.—Senior Assistant Medical Officer. Salary £200, rising by £25 annually to £250. Also Junior Assistant Medical Officer, salary £150, rising by £25 annually to £200. Board, furnished apartments, and washing provided.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—Medical Officer to the Provident Dispensary. Salary £100 per annum, with board, lodging, and washing.

WREXHAM INFIRMARY.—House Surgeon. Salary £100 per annum, with board and washing.

Births, Marriages, and Deaths.

BIRTHS.

BRIDGEFORD.—On the 15th March, at Silkote, Boulder City, West Australia, the wife of Walter Bridgeford, M.R.C.S. Eng. and L.R.C.P. Edin., of a son.

GABRIEL.—On April 27th, at Pembridge-villas, W., the wife of William [illegible]

Henry

wife of

he wife

MARRIAGES.

ELLIOTT—WEAVER.—On April 29th, at St. Alban's, Tattenhall, by the Rev. L. M. Farrall, Rector of Holy Trinity, Chester, John Elliott, M.D., Chester, to Margaret, youngest daughter of the late William Weaver, of Stanney. No cards.

KENNY—MASON.—On April 30th, at All Saints' Church, Silkstone, by the Rev. R. L. Bellamy, B.D., John Drought Kenny, M.D., M.Ch. R.U.I., of Treeton House, Rotherham, fourth son of the late Henry Kenny, of Ballylina, co. Tipperary, to Gertrude Mary, only daughter of the late Joseph Mason and Mrs. Stone, Jordan Villa, Barnsley.

NEIL—CRAVIE.—On the 27th of April at All Saints' Church, Leamington, by the Rev. John Hendry Anderson, Rector of Tooting Graveney, James Neil, M.D., Superintendent of the Warneford Asylum, Oxford, to Kate, widow of the late John M. Cravie, M.A. Aberdeen, and recently Warden of Queen Margaret Hall, University of Glasgow.

DEATHS.

CAVAFY.—On April 28th, at Clarges-street, W., suddenly, John Cavafy [illegible] of Fourth avenue, Hove.

outhampton, Francis H. Warburton

eldest son of the late Rev. Henry

ary's, Crumpsall, aged 38 years.

mouth, Devon, Arthur J. Cumming,

EDWARDS.—On April 28th, [illegible] Edwards, M.R.C.S., of Shottisham, [illegible]

y, London-road, Croydon,

d-place, Torquay, Arthur

L.R.C.P. Lond., aged 34,

ents and of Mrs. Watson of

Carson-road, West Dulwich,

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

CAN A MEDICAL MAN RETIRE FROM A CASE AND CHARGE FOR HIS SERVICES?

AT the Southwark County Court on Tuesday before his Honour, Judge Addison, K.C, Mr. Alfred Matcham of Gladstone-street, S.E., sued Mr. William Lacey of Kennington Park-gardens, to recover £1 10s. 6*d* for professional services rendered. The plaintiff's case was that he attended the defendant's wife and subsequently his child, the latter being ill with bronchitis. The wife was very inexperienced in the care of sick children and she so persistently did what he advised her not to do and refused to do what he requested her to do in regard to the child that after several visits he wrote declining to attend any more and suggesting that another medical man should be called in. His bill for attendance on the wife was 15*s* 6*d*. and that for the child until he gave up the case 15*s*. The defendant declared that only once did his wife rub the child with a liniment which the medical man did not approve of, but when told not to use it she at once desisted. In everything she carried out the instructions to the letter. As the result of the medical attendant's throwing up the case the child, who was suffering from bronchial pneumonia, was without medicine for a whole day and it was not until late at night that the services of another practitioner were secured —His Honour (to the plaintiff)· You cannot recover for attendance on the child. You cannot tell people that you will not attend any more and that they had better call in another doctor and then charge for your own attendances The obligation of a doctor is to attend through an illness as well as he can.—The plaintiff: But the mother persistently refused to follow my advice.—His Honour: You must expect mothers sometimes when they get anxious about their children to rub them with oil or to do things of that kind, but that is not sufficient reason for a doctor to say he will not go on with the case.—The plaintiff But has a doctor no power to retire from a case?—His Honour: Yes; but he cannot charge for it. When you are called into a case your obligation is to do your best until you are discharged.—The plaintiff: But am I not able to charge for services actually rendered?—His Honour: No; they are thrown away where a person has to call in another doctor because you retire on such weak grounds as in this case —The plaintiff: There was such a desire on the part of the mother to go the reverse way to that I wanted her to go and the responsibility rested on me.—His Honour: You are entitled to say you decline the responsibility, and that you will not attend any more, but you cannot charge for your services. There are so many troublesome parents in this world that if a doctor could throw up his case and then charge for it I do not know where we should be. My prejudice is in favour of professional men, but a doctor cannot throw up a case because he feels that his professional feelings are hurt and then charge for it. Your engagement was to attend the child during its illness—that is the ordinary engagement in such a case—and if you throw it up you do it at your own risk. You can only recover for attendance on the wife. Therefore, there is judgment for you for 15*s* 6*d* —Judgment was entered accordingly.

⁂ We do not express any opinion upon this particular case; but it is evident that it would be very unfair if it were to be held a legal principle in all circumstances that a medical man, having once taken charge of a case, can never retire from that charge without sacrificing all fees earned up to the date of his withdrawal.—ED. L.

THE FACTORY GIRLS' COUNTRY HOLIDAY FUND.

WE are requested by Miss M. A. Wyatt, the honorary treasurer of this fund, to acknowledge in our columns a donation of £1 from "A Medical Student."

PREVENTION OF BEDSORES—AIR *VERSUS* WATER.

To the Editors of THE LANCET.

SIRS,—Will you or any of your readers kindly inform me of the relative advantages of the use of air- and water-cushions in preventing bed-sores? I am accustomed to use water, but it is heavy and unpleasant in event of leakage. I am, Sirs, yours faithfully,

April 25th, 1901. W. H. B.

FAIR RIVALRY?

To the Editors of THE LANCET.

SIRS,—May I trouble you to advise me in your next issue, what action I might take, if any, in the following circumstances? Some 10 months ago a practitioner, whom I will call A, came to the village where I practise and took over the practice previously held by another medical man whom I will call B. About 15 months before B left he engaged an assistant who occupied rooms for one year in a cottage in the main thoroughfare between a new estate and the village and station. During the residence of the assistant both B's name and that of the assistant were on a plate at the gate of this cottage. When the assistant left, three months before B, the plate still remained, though B never went near the place. As I had a well-founded belief that B was soon about to leave the village I took no notice of the plate having been allowed to remain on. But when A came in and put his plate on the same cottage gate solely for the purpose of advertising (as he never went to the cottage, which is about 300 yards from where he lives) I thought it was unprofessional conduct. I have made no remark until now, when the cottage changed hands and the present occupier, quite a stranger in the place, refused to have A's plate on the gate. A then put his plate on the gate of another cottage directly facing the main exit from the above-mentioned estate, solely for the purpose of advertising, as I have had some inquiries made and find that he has no rooms in the cottage nor does he dispense there or leave any drugs or medicines there. I think this conduct is advertising, wrong in a professional sense, and very unfair to me. But A has busied himself to do me harm in more ways than one. Amongst others he has called upon a number of my patients, leaving his cards on them, on the ground that he had no formal introduction to the practice from A and did not know who A's patients were. Will you kindly advise me as to whether I can put a stop to this advertising or not, and if so what are the steps to be taken? Thanking you in anticipation, Yours truly,

April 28th, 1901. MULLACH ADOO

⁂ The only course is to give information to the General Medical Council and to be prepared to support the information. We do not approve of A's use of a door-plate upon a cottage which he does not occupy or use in his practice.—ED. L.

ANISOMETROPIA.

To the Editors of THE LANCET.

SIRS,—Would you kindly oblige me with the name and publisher of some book containing examples of prescriptions for anisometropia, &c., and similar defects of vision, by means of glasses? Do you know if Morton's book, "Refraction of the Eye: its Diagnosis and the Correction of its Errors," gives such? In standard works such as Fuchs's, Swanzy's &c, no examples of such troubles are given. An American book would suit. I am, Sirs, yours faithfully,

April 23rd, 1901. A. B. A.

⁂ The Refraction of the Eye, by Edward Davis, M.D.; Macmillan, 1903. James Thorington, M.D., Refraction and How to Refract Rebman, London, 1900. George F. Helm, M.D., Short Sight, Long Sight, and Astigmatism; Churchill, London, 1886. The successive numbers of the *Optician* (Giltenburg Press, London), published weekly for several years past, contain in answer to correspondents many very intelligently worked out replies to questions on refraction.—ED. L.

DOUBTFUL ADVERTISEMENT.

THE following advertisements appear in the *Boston Independent and Lincolnshire Advertiser* of Saturday last, April 27th:—

CHANGE OF ADDRESS.

DR. ——— has Removed from 118a, High-street, to
SOUTH-STREET, BOSTON.

MISS BELL, Experienced Laundress, has removed from No. 22, Liquorpond street, to 43, LIQUORPOND-STREET, Boston

We do not recommend our readers to imitate the examples set of advertising in the press their changes of address. Such advertisements by medical men occasionally come under our notice, and we do not doubt that in the majority of cases there is no intention of infringing medical etiquette; but they open the door to abuse, for no rule can be laid down to decide how long such advertisements should appear. The fact that a man has changed his address should be made known to his own patients and to nobody else outside the circle of his private friends and his tradesmen.

◆

A. B.—An agreement ought to have been made before the rather complex arrangement for working the practice was started. As B has now to pay for a share in a practice of which he has had the sole management for three years, we think that the price which he pays should be regulated to a certain extent by the influence that he has had upon the receipts. But if the value of the practice through his sole exertions has considerably appreciated during the three years it is hard that he should have to pay a considerably increased sum to enjoy further benefits. His partner, who for three years has been a sleeping partner, will in these circumstances derive benefit from B's unaided exertions, and should, we think, be ready to make lenient terms with B. Owing to the absence of an agreement the matter is one upon which no definite opinion can be given, but from our correspondent's account we feel that it would be best for the two partners to select an arbitrator trusted by both of them and to abide by his decision. It would be a pity if they did not start on their joint venture amicably.

Compensation.—"Where a workman has given notice of an accident he shall, if so required by the employer, submit himself for examination by a duly qualified medical practitioner *provided and paid by the employer*, and if he refuses to submit himself to such examination or in any way obstructs the same his right to compensation, and any proceeding under this Act in relation to compensation, shall be suspended until such examination takes place." It will be observed that the medical practitioner is to be "provided and paid" by the employer, but as there may be a dispute as to payment if such an examination is made without direct authority from the employer and before payment the medical man who makes an examination should see that there is no doubt that he is "provided" by the employer and that the employer understands his liability towards him.

Eclectic.—We have no information on the matter.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 2nd, 1901.

Date	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall	Solar Radia in Vacuo	Maximum Temp. Shade	Min. Temp	Wet Bulb.	Dry Bulb	Remarks at 8.30 A.M.
April 26	29·90	E.	...	107	69	47	45	53	Fine
" 27	29 85	N.E.	...	102	62	42	41	46	Cloudy
" 28	29 89	S E.	...	93	57	40	42	48	Cloudy
" 29	29·83	S	...	94	60	39	44	47	Foggy
" 30	29·95	ENE	...	96	65	46	46	53	Cloudy
May 1	30·09	E	...	100	65	44	47	52	Fine
" 2	30 17	N.E.	...	61	53	48	48	50	Overcast

Medical Diary for the ensuing Week.

OPERATIONS

METROPOLITAN HOSPITALS.

MONDAY (6th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

TUESDAY (7th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

WEDNESDAY (8th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College [illegible]

THU[illegible] University College (2 P.M.), Charing-cross (3 P.M.), St. Geor[illegible] (1.30 [illegible] Lond[illegible] logic[illegible] St. M[illegible]

FRIDAY [illegible] Thom[illegible] cross [illegible] (2 P.M. [illegible] North[illegible] Throat [illegible] London

S[illegible]

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY [illegible]

THU[illegible] Hanover-square, W.)—8 P.M. Specimens will be shown by Dr. Elder. Continuation of the Discussion on Retroversion of the Uterus. Paper:—Dr. W. Alexander: Posterior Vaginal Cœliotomy in Operation for Pelvic Disease.

NEUROLOGICAL SOCIETY OF LONDON (11, Chandos street, Cavendish-square, W.)—[illegible] of Stat[illegible] (1) A Ca[illegible] the Spin[illegible] the Opti[illegible] Dr. [illegible] Old-stand[illegible] Amputation.

FRIDAY (10th).—BRITISH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL ASSOCIATION (11, Chandos-street, Cavendish-square, W.).—4 P.M. Cases and Specimens will be shown by the President, Mr. Lennox Browne, Dr. W. Wingrave, Dr. Abercrombie, and others.

CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Papers:—Dr. [illegible] Stomach with [illegible] Dalton: A Ca[illegible] matic Abscess [illegible] Mr. Bidwell: [illegible] Ascites.—Dr. [illegible] and Mr. [illegible] Johnson: Traumatic Sub-[illegible] Suppuration (opened by Mr. C. A. Ballance).

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (6th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies street, W.C.)—4 P.M. Dr. T. Colcott Fox: Consultation. (Skin.)

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.)—5 P.M. Dr Beddard: Artificial Aids to Digestion.

TUESDAY (7th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.)—4 P.M. Dr. C. O. Hawthorne: Consultation. (Medical.)

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Dr. A. Macfadyen: Cellular Physiology, with Special Reference to the Enzymes and Ferments.

WEDNESDAY (8th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies street, W.C.)—4 P.M. Mr. P. J. Freyer: Consultation. (Surgical.)

THURSDAY (9th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Consultation. (Surgical.)

CHARING-CROSS HOSPITAL.—4 P.M. Dr. J. Mitchell Bruce: Cases in the Wards. (Post-Graduate Course.)

THE HOSPITAL FOR SICK CHILDREN [illegible] W.C.).—4 P.M. [illegible]

W[illegible] don Hospital, [illegible]

FRI[illegible] POLYCLINIC [illegible] Consultation. (Eye.)

ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Prof. Jagadis Chunder Bose: The Response of Inorganic Matter to Mechanical and Electrical Stimulus

EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

During the week marked copies of the following newspapers have been received:—*Swindon Advertiser, Yarmouth Mercury, Keighley News, Scotsman, Leeds Mercury, Exeter Times, Grantham Journal, Times of India, Pioneer Mail, Architect, Citizen, Liverpool Daily Post, Sanitary Record, Fife News, Bristol Mercury, Huddersfield Examiner, Stamford Guardian, Yorkshire Post, Builder, Otago Daily Times, Sheffield Daily Telegraph, Dundee Advertiser, Birmingham Gazette, Cardiff Express, South Wales News, Glasgow Mail, Truth, Newcastle Leader, Bradford Argus, Carlisle Journal, Sussex News, Sunderland Echo, Northampton Reporter, Boston Independent, Reading Mercury, Australasian Medical Gazette, City Press, Hertfordshire Mercury, Local Government Chronicle, Islington Gazette, Christian Globe, Ceylon Standard, Sydney Mail, Commercial Intelligence, Mining Journal, Surrey Advertiser, Grimsby Daily Mail, Local Government Journal, Luton News, Consett Guardian, Yeovil Chronicle, Church Family Newspaper, Forfar Herald, Weekly Free Press and Aberdeen Journal, Blackpool Times, Tewkesbury Record, Invention, Westminster Budget, Literature, Thirsk News, Gloucester Chronicle, North Suffolk Advertiser, Stafford Advertiser, Cornish Guardian, &c., &c.*

Communications, Letters, &c., have been received from—

A.—Dr. J. R. Armstrong, Treorchy; Mr. H. S Ashburner, Manchester; Association for Vaccine Lymph, Lond.; Abbey Effervescent Salt Co., Lond; Messrs. Alford and McCulloch, Lond.

B.—Dr. G. Bellei, Bologna; Messrs. W. H. Bailey and Son, Lond.; Dr. R. H. Bakewell, Auckland; Bishopstone House, Bedford, Proprietor of; Messrs. J. and H. Bell, Nottingham; Mons. Berson, Lond.; Messrs Buchner, Schacht and Co., Lond; Borough of Invercargill, New Zealand, Chief Health Inspector of; Messrs. F. C. Benger and Co., Manchester; Bury Infirmary, Hon. Secretary of; Mr. Stanmore Bishop, Manchester; Mr. W. H. Brown, Leeds. Colonel Brooke, Athlone; Dr. T B. Broadway, St. Austell; Mr. G. M. Bell, Lond.; Mr. A. E Barker, Lond.

C.—Dr. O. J. Currie, Maritzburg; Cortland Wagon Co., Lond.; Messrs. Cassell and Co., Lond.; Mr. W. H. Chapman, Whitehaven; Cheltenham General Hospital, Secretary of; Chesterfield, &c., Hospital, Secretary of Dr. W. H. Cooke, Bath; Cyclists' Touring Club, Lond., Secretary of; Cafolin Co., Lond.; Clayton House, Lond.. Proprietor of; Mr. W. H. Collingridge, Lond.; Messrs. J. and A. Churchill, Lond.. Cumberland Infirmary, Carlisle Secretary of; *Charlotte Medical Journal*, U.S.A., Editor of; Mr. J. Black Cameron, Lond.; Mr. E. P. Court Hambledon; Mr. D. A. Campbell, Halifax, Nova Scotia; County Asylum, Newport, Isle of Wight, C. P.

D.—Mr. J. Donald, Dumfries; Messrs. Darton, Gibbs, and Co., Oldham; Devonshire Hospital, Buxton, Secretary of; Paul E. Derrick Advertising Agency, Lond.; Dr. M. Dockrell, Lond.; Mr. W. Downing, Haverfordwest; Discount Motor Car Co, Lond.; Mr. W. Durrant, Lond. Dr. T. S. Dowse, Lond., Derby Borough Asylum, Clerk of; De Dion Bouton, Ltd., Lond.; Dr. A. H. Davisson, Philadelphia.

E.—Mr. S. J. D. Esser, Zeist, Netherlands; *Engineer*, Lond., Publisher of.

F.—Dr. Kenneth Fraser, Wigan; Mr. A. G. R Foulerton, Lond., Food and Cookery Exhibition, Lond., Hon. Director of; Mr. N. H. Forbes, Tunbridge Wells.

G.—Mr. H. J. Glaisher, Lond.; Messrs. J. Griffin and Co., Lond.; Dr. J. Galloway, Lond.; Mr. J. Gray, Edinburgh; Professor A. De Giacomo, Naples; G. A. G.; Mr. H. Garland, West Kirby, Surgeon Major W. C. Gorgas, Havana

H.—Mr. H. Holmes, Pontefract; Dr. Edgar Huntley, Lewisham; Messrs. J. Haddon and Co., Lond.; Dr. J. Hay, Liverpool; Hovis Bread Flour Co., Macclesfield, Humphreys, Ltd., Lond.; Captain C. R. Harris, R.N., Hove; Dr. J. W. Hunt, Bicester; Messrs. Hoppe and Robinson, San Francisco; Holloway and North Islington Dispensary, Secretary of; Miss Hargreaves, Lond.

I.—Messrs. Idris and Co., Lond.

J.—Dr. Robert Jones, Woodford.

K.—Mr. A M. Kellar, Lond.; Mr. W. M. Khan, Peshawar; Kaiser Friedrich Quelle Actien Gesellschaft, Offenbach; Kelpion Co., Lond.

L.—Mons. H. Le Soudier, Paris; Dr. J. H. Lamb, Crewkerne; Liverpool Stanley Hospital, Secretary of; Leeds General Infirmary, Manager of; Dr. D. Lawson, Banchory; Mr. H. K. Lewis, Lond.; Lee's Advertising Agency, Lond.; Messrs. Lea Bros., Philadelphia.

M.—Dr. D. M. Mackay, Grimsby; Dr. Dysart McCaw, Lond., Mr. E Merck, Lond.; Manchester Ear Hospital, Secretary of; Mr. B. G. A. Moynihan, Leeds; Dr. J. A. Macdougall, Cannes; Herr L. Marcus, Berlin; Mr. A. L. McMurtry, La Trinidad, Mexico, Mr. C. A. Morton, Clifton; Mr. J. C. McWalter, Dublin; Dr. C. Muther, Isle of Wight; Miss D. MacArthur, Llandilo; Mr. C. P. Mathew, Exeter; Dr. J. MacNidder, Hull.

N.—Mr. J. O. Neumann, Lond.; Dr. W. R. Nicol, Llandudno; Mr. Nourse, Lond.; Mr. F. C. Needes, Lond.; Mr. H. Needes, Lond.

O.—Mr. W. S. Ogle, Lond.

P.—Mr. Y. J. Pentland, Edinburgh; Mr. J. Palmer, Snodland; Plumbers, Worshipful Company of, Lond.; Porcherine, Ltd, Lond.

R.—Mr. H. B. Robinson, Lond.; Mr. H. T. Roxby, Lond.; Messrs. Runton and Barry, Hull; Dr. M. W. Renton, Crowle; Royal Albert Hospital, Devonport, Secretary of, Mr. S. Renaud, Edenbridge.

S.—Mr. F. A. Simpson, Dudley; Dr. D. F. Shearer, Lond.; Mr. W. B. Sparrow, Burton-on-Trent; Messrs. Street and Co., Lond.; Mr. A. Snowdon, Hutton-Rudby; Swansea Hospital, Secretary of; Mr. E. Schloesser, Nice; St. Marylebone Infirmary, Medical Superintendent of; South Australian Government Bonded Depôt, Lond.; Scholastic, Clerical, &c., Association, Lond.

T.—Dr. F. Tresilian, Enfield; Dr. J. H. Thornton, Hove; T. J. C.; Tallerman Institute, Lond.; Temperance Male and Female Nurses' Coöperation, Lond.; Mr. Pugin Thornton, Canterbury.

U.—University of Durham College of Medicine, Newcastle, Secretary of.

V.—Mr. J. W. Vickers, Lond.

W.—Dr. J. R. Woodcock, Ripon; Messrs. Wagstaff, Hornchurch; W. G. M.; Messrs. Whitbread and Co., Lond.; Surgeon-Colonel F. H. Welch, Lond.; Messrs. F. Williams and Co., Lond.; Mr. S. T. Q. Wood, Lond.; Messrs. W. Wood and Co., New York; Dr. F. J. Waldo, Lond.

Letters, each with enclosure, are also acknowledged from—

A.—Dr. G. N. Adams, Kenfig Hill; Dr. J. M. Atkinson, Wimbledon; American Medicine Publishing Co., Philadelphia; Messrs. Allen and Hanburys, Lond.; Mr. H. Appleton, The Lizard; A. W. S.; A. V. W.

B.—Mr. C. H. Betenson, Lond.; Mr. H. Butterfield, Northampton; Mr. H. J. T. Blanch, Swindon; [illegible] Mr. C. Bickerdike, Loftus-in-Cleveland; Messrs. Batty, Ford, and Buckley, Manchester; Dr. C. H. Bryant, Newcastle-on-Tyne; *Birmingham Daily Post*; Messrs Benson and Co., Lond.. Mr. E. A. Breese, Bradford; Borough of Leicester, Accountant of; *Bath Chronicle*; Mr. R Burt, Lond.; Messrs. J. Burnett and Son, Birtley; Mr. R Baker, Lond; Dr. B.; Dr. M. Beverley, Norwich, Messrs. J. L. Bullock and Co., Lond.

C.—Dr. R. Craven, Chipping; College of Preceptors, Lond., Secretary of; *Chester Chronicle*; Messrs. Carnrick and Co., Lond.; County and City of Cork Hospital, Secretary of, C. E. M.; County Asylum, Prestwich, Secretary of Mr. W. H. Corfield, Lond.; C. E. M.; Cornwall County Asylum, Bodmin, Clerk of; Mr. F. G. H. Cooke, Lond., Mr. E. Collins, Sawbridgeworth.

D.—Dr. W. J. Dougherty, New York; Mr. F. Davidson, Lond.; Messrs. Duncan, Flockhart, and Co., Edinburgh Messrs. J. Defries and Sons, Lond.; Messrs. Dowie and Marshall, Lond; Messrs. H. Dawson and Co.; Lond.; Derbyshire Royal Infirmary, Secretary of; Mr. D. Davis, Pontardawe.

E.—Miss Etheridge, Lond.; E. L.; Exeter City Asylum, Clerk of, Messrs. F. Ealand and Co., Bath.

F.—F. C., F. F. J.

G.—Mr. T. Gray, Pontypridd; Guildford, &c., Joint Hospital Board, Clerk of; G. F. V.; Messrs. Guest, Keen, and Co., Dowlais; Messrs. Gale and Co., Lond.; Herr J. Gregr, Prague; Dr. M. Greenwood, Lond., Mr. J. J. Griffiths, Lond.

H.—Dr. T. W. Hime, Bradford; Mr. G. Hermanni, jun., Lond., Dr. H. F. Holland, Ampthill; Mr. V. X. Harcourt, Brighton; Dr. V. Harley, Lond.; H. T. W.; Messrs. Hooper and Co., Lond.; Mr. J. D. Hadden, Lond.; Mr. R. H. Heptinstall, Methley; Mr. H. E. Haynes, Bedford; Messrs R. Heaton and Son, Burslem; Mr. J. J. Hicks, Lond.; Mr. T. A. Hawkesworth, Thrapston; H. E. A.; H. W.

I.—Messrs. Ingram and Royle, Lond.

J.—Dr. D. M. Jones, Aldershot, J. H. W.; J. H.; J. G., J. T. B.; J. McC.; J. C.

K.—Dr. J. D. Kenny, Treeton; Kent and Canterbury Hospital, Secretary of.

L.—Mr. H. Lee, Southall; Messrs. Lee and Nightingale, Liverpool; Dr. F. Lasteria, Lucera Italy; Mr. R. Lloyd, Castletown; London Association of Nurses, Secretary of.

M.—Mr. Mather, Pendleton; Dr. W. J. McCardie, Birmingham; Mr. W. Martindale, Lond.; Manchester Corporation, Treasurer of; Messrs. Morrison, Ingram and Co., Manchester; Mundy's Advertising Offices, Birmingham; M.R.C.S, London; Dr. W. R. Mander, Great Moor; Mr. H. Moxon, West Brighton; Mr. W. McGee, Dublin; M. H. H.; Moorcote Sanatorium, Hants; Mr. F. Mundy, Birmingham; Mr. S. Mackey, Manchester; Manchester Medical Agency; Secretary of; Maltine Manufacturing Co., Lond.

N.—Non-Poisonous Strike Anywhere Match Syndicate, Lond., Secretary of.

O.—Mr. E. Owen, Lond.

P.—Dr. F. C. Palmer, Alverstoke; Messrs. Pownceby and Co., Lond.; P. A. H., Liverpool; Drs. Paton and Stephenson, Harpurhey; Messrs. Philip, Son, and Nephew, Liverpool; Dr. P., Lond.; Practice, Lond.

R.—Dr. T. H. Redwood, Rhymney; Messrs. Robinson and Sons, Chesterfield; Mrs. R.; R. C. R.; Radcliffe Infirmary, Oxford, Secretary of; R. W. J.; Royal Surrey County Hospital Guildford, Secretary of; Mr. E. J. Reid, Lond.; Registered Nurses' Society, Lond.

S.—Dr. R. S. Sibbit, Stamfordham; Mr. E. Noble Smith, Lond.; Mr. E. S. Sanderson, Tuxford; St. Andrew's Hospital, Northampton; Dr. J. Santelli, Montreuil, l'Argille, France; S. G. W.; Messrs. Skinner, Winchelsea; Miss E Smith, Farningham; Dr. J. C. Spillaue, Lond.; Mr. J. F. Somerville, Harrold; Messrs. R. G. Shaw and Co., Lond.; Mr. W. P. Smart, Lond.; Stanton Iron Works Co's Collieries, Teversal, Secretary of; St. Peter's Hospital for Stone, Lond.; Surgeon, Lond.

T.—Dr. C. B. Taylor, Nottingham; Dr. G. B. Thwaites, Brighton; Mr. H. Tylecote, Kirby Muxloe; Mr. F. Treves, Lond.; Mr. J. Thin, Edinburgh.

V.—Mr. W. Van Praagh, Lond.

W.—Mr. S. Wand, Leicester; Mr. A. H. Wade, Little Marlow; Dr. W. H. Warwick, Darlington; W. T. B.; Wonford House Hospital, Exeter; Wandsworth-road (430), Lond., W. G. D.; W. J. W.; Mrs. B. H. Woodward, Malvern Link, Mr. W. H. Willcox, Lond.; Dr. G. B. Wood, Sandown; Mrs. Watson, Wimbledon; Dr. A. E. Wright, Netley; West Bromwich Union, Clerk of; Dr. W.; Mr. L Whitaker, Leeds; Mr. J. H. Wallis, Babbacombe; Messrs. H. Wilson and Son, Lond.

Z.—Messrs. A. and M. Zimmermann, Lond.

EVERY FRIDAY. **THE LANCET.** PRICE SEVENPENCE.

SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.	
One Year	£1 12 6
Six Months	0 16 3
Three Months	0 8 2

TO THE COLONIES AND ABROAD.	
One Year	£1 14 8
Six Months	0 17 4
Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

ADVERTISING.

Books and Publications ...	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 6
	Every additional Line	0 0 6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.

Terms for Position Pages and Serial Insertions on application.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France.—J. ASTIER, 8, Rue Traversière, Asnières, Paris.

The Erasmus Wilson Lectures

ON

THE PATHOLOGY AND DISEASES OF THE THYROID GLAND.

Delivered at the Royal College of Surgeons of England on Feb 18th, 20th, and 22nd, 1901,

BY WALTER EDMUNDS, F R C S ENG,

SURGEON TO THE TOTTENHAM HOSPITAL; SURGEON TO OUT-PATIENTS AT THE EVELINA HOSPITAL FOR SICK CHILDREN

LECTURE I

Delivered on Feb 18th.

MR PRESIDENT AND GENTLEMEN,—The subject of the lectures which the Council has done me the honour to elect me to give is the Pathology and Diseases of the Thyroid Gland The subject is not new to this theatre, for in 1891 Mr James Berry selected the pathology, diagnosis, and surgical treatment of goitre for the Hunterian lectures which he gave that year, but in the 10 years which have since elapsed considerable progress has been made in our knowledge of the physiology of the thyroid gland, and it is therefore convenient to reconsider our views as to the nature of its diseases, and more especially of Graves's disease, in the light of these advances

The thyroid gland consists mainly of closed vesicles lined with epithelial cells which secrete the colloid, it may here be remarked that the normal vesicles are in shape round or square (in some conditions they become branched and stellate), that the secreting cells are cubical (in some conditions they become columnar), and that the colloid readily stains with the usual microscopic agents (in some conditions it does not stain) It may be added that the nerves to the thyroid have been traced into close proximity to, but not actually into, the secreting cells Besides the thyroid proper there are certain small glands named "parathyroids" Recent researches have shown these to be of much importance in the organism, indeed, their excision generally causes the death of the animal These glands were no doubt observed from time to time by various anatomists, but the first full account of them was written by Sandström of Sweden in 1880 In this country they were independently described by Cresswell Baber in a paper published in the Philosophical Transactions of the Royal Society in 1881 The parathyroid glands differ from the thyroid gland proper in that they consist wholly of cells and contain no vesicles and no colloid, or at most a minute droplet (Fig 1 and Fig 2)

It is not easy to identify the parathyroid glands in the human subject because some of the minute outlying nodules are found to consist of ordinary thyroid tissue and to be therefore accessory thyroid glands, only those that consist exclusively or mainly of cells are to be regarded as parathyroid glands The anatomy of the parathyroid gland in man has been worked out by Dr D A Welsh of Edinburgh He finds that there are four of these glands—one anterior and inferior to one posterior and superior to, each thyroid lobe The parathyroid glands are said to differ from the thyroid gland proper in another way—developmentally, they develop in advance of the thyroid lobes

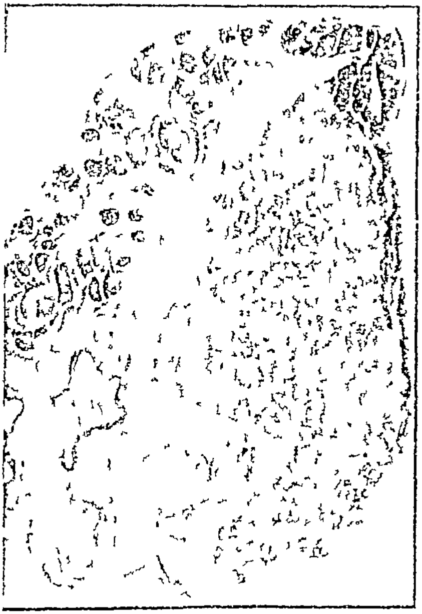
We can study the physiology of the thyroid gland by operations for its removal in whole in part, or in successive parts, also by the administration of preparations from the thyroid gland or from the parathyroid glands

The earliest experiments on excision of the thyroid gland were made by Sir Astley Cooper as long ago as 1824

In 1844 Sir John Simon made an important contribution to the subject He proceeded by the very Hunterian method of studying the comparative anatomy of the organ and embodied his results in a monograph on the thyroid gland in vertebrata which was published in the Philosophical Transactions He came to the conclusion that the thyroid gland is intimately concerned in the nutrition of the central nervous system and in the regulation of the circulation to the brain It is interesting to note that these views arrived at more than half a century ago mainly through comparative anatomy have recently received confirmation from the experimental methods of to-day

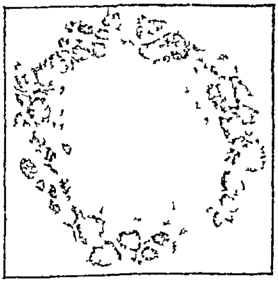
In 1856 and 1857 Schiff made a series of experiments He showed clearly the fatal results that usually follow the complete excision of the thyroid gland in dogs and cats But not much attention was paid to the subject till 1882 and 1883, when Reverdin and Kocher respectively reported cases of excision of the goitrous thyroid gland in the human subject which was followed by serious, and in some cases fatal, results Schiff now repeated his experiments and he has been followed by numerous observers The subject, however, has proved rather complicated, as the results apparently differed in different kinds of animals

FIG 1



Normal parathyroid gland of the dog A small part of the adjacent thyroid gland proper is shown and can be recognised by its vesicles containing colloid In the dog the parathyroid gland lies on the surface of the thyroid gland (× 60)

FIG 2



Normal parathyroid gland of the monkey The parathyroid gland is completely surrounded by the thyroid gland proper

Sir Astley Cooper's experiments were made on the dog, and it will be convenient in the first place to consider the now well-established results which follow the complete extirpation of the thyroid gland and the parathyroid glands in the dog. The symptoms commence generally about 48 hours after the operation. One of the first symptoms noticed, probably the first if the animal is closely observed, is a fibrillar twitching of the muscles; this can be seen, and it can also be distinctly felt by placing the hand on the dog. Within a day or two this is often followed by a severe attack of general convulsions; the animal lies down—in fact, it cannot stand—as its limbs are in a state of spastic paralysis; further, its respirations are hurried, rising to 200 a minute or more. Also during the attack its temperature is raised, sometimes as much as several degrees. These attacks last for an hour more or less and completely pass off, so that the next day the animal appears to be itself again. The convulsive attacks may recur and in a day or two other symptoms may appear; the dog becomes much less lively—in fact, quite listless. Its hair falls out and a peculiarity is noticed in its gait; also it has a difficulty in maintaining its equilibrium, especially when turning round. Later a rigidity is noticed in its limbs, and before long its hind legs may become completely paralysed; trophic symptoms may come on, such as ulcers on the skin, also a conjunctivitis followed by a keratitis leading to destruction of the eye. It may be added that the urine sometimes contains albumin and more rarely sugar; also that between the convulsive attacks the temperature is subnormal. Finally the animal dies on about the fifth day, but death may occur at any time between the second and the eleventh day, or even later.

There is one other point which, considering its bearing on Graves's disease, ought not to be overlooked, and that is whether there is any alteration in the prominence of the eyes. It is much affected; the palpebral fissures become narrower and the eyes less prominent.

The great majority of the dogs submitted to total thyroidectomy die, but a small percentage recover; this result seems to be common to nearly all observers, and cannot therefore be explained away by error of experiment. We must conclude that even in dogs and cats total excision of the thyroid gland and of the parathyroid glands is not necessarily a fatal procedure, while in other less extensive operations we must be prepared for an absence of absolutely conclusive results.

Now, although the operation was followed in dogs and cats with so great a mortality it was found to produce no effect whatever in rabbits. It was soon shown, however, by Gley that the contradiction was only apparent, for he found that two of the parathyroid glands in rabbits lie separate from the thyroid gland proper, and consequently escape removal when the thyroid gland is excised. Gley found that when these were also removed the rabbit, as a rule, died.

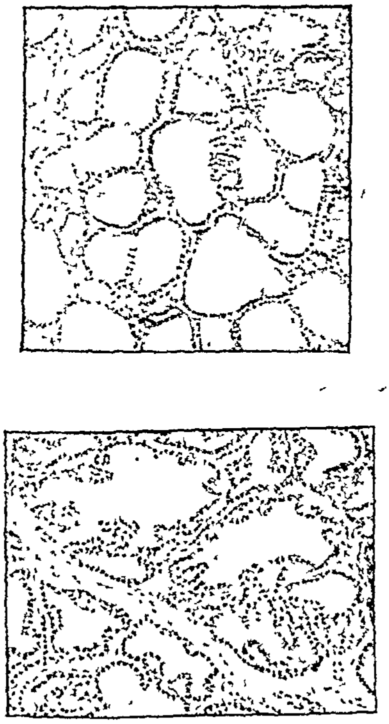
In monkeys total excision of the thyroid gland produces symptoms similar to those seen in dogs. The majority of monkeys thus operated on have tremors and convulsions and also passing paresis of the limbs. They have, too, œdema under the eyelids, and occasionally well-marked swellings there. Finally, the monkeys nearly always die, many with acute nerve symptoms similar to those seen in dogs; others have, as was first pointed out by Horsley, symptoms identical with myxœdema in man. The hair falls out and swelling occurs in the face which is especially marked under the eyelids. In monkeys, too, enophthalmos and narrowing of the palpebral fissures occur, but exceptionally widening of the palpebral fissures may be seen.

The fatal termination in dogs cannot, as a rule, be prevented by thyroid gland feeding or by the subcutaneous injection of thyroid extract. The conclusions which I arrived at from some experiments on this point were that the symptoms were somewhat modified, the attacks of convulsions with rapid breathing being less frequent; that death occurred on an average a few days later than in untreated cases; and that the small percentage of recoveries was somewhat increased. Cunningham came to similar conclusions: he found that by thyroid gland feeding the lives of thyroidless dogs could be prolonged from an average of from 52 to 54 hours to an average of from eight to 12 days. It has been thought that the lives of the animals might be saved by grafting into them the excised thyroid lobes, and with this view a lobe has been returned to the site from which it has just been excised or it has been placed in the abdomen. The result, however, in most cases at least, has been that the grafted lobe has simply been absorbed (that certainly has been the result in my experiments on this point) and the dog has died. This treatment, however, is not absolutely without effect, for during the process of absorption the lobe acts as thyroid gland food and the course of the ailment is slightly modified accordingly. In monkeys, too, thyroid gland feeding, although it modifies and prolongs the course of the disease, fails as a rule to save the life of the animal. Such, then, are the results of total excision.

If in a dog one lobe of the thyroid gland, together with its two parathyroid glands, is excised, leaving the opposite lobe with its two parathyroid glands, no obvious effect is produced on the dog; and if the remaining lobe and its parathyroid glands are subsequently removed the dog dies, and this occurs no matter what the interval between the two operations may have been; similarly with piecemeal excision, the dog dies after the removal of one of the later pieces.

Although no symptoms occur in a dog as a consequence of the removal of one lobe of the thyroid gland important changes occur in the lobe which is left; as was pointed out by Wagner, it hypertrophies. The microscopical changes were first described by Horsley; the vesicles enlarge and become branched, the cubical secreting cells become columnar, and the colloid disappears and is replaced by a mucous secretion which takes the staining reagents badly (Fig. 3, Fig. 4, Fig. 5, and Fig. 6).

FIG. 3 AND FIG. 4.

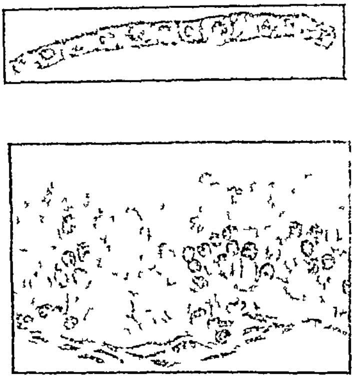


The upper figure shows the normal thyroid gland of the dog. The lower figure shows a portion of the thyroid gland left *in situ* for 41 days after the whole of one lobe and nearly the whole of the other lobe of the thyroid gland had been excised, leaving only one parathyroid gland and a small portion of thyroid gland proper. The vesicles are enlarged and their lining membrane is folded. The colloid has nearly disappeared. The drawings are to the same scale. (× 90.)

Whether there is any difference in the physiological action of normal colloid and that of the secretion in compensating hypertrophy we do not yet know, but it is a point worth investigating. In order to ascertain to what extent the symptoms produced by total excision are due to the excision of the thyroid gland proper and to what extent to excision of the parathyroid glands it is necessary to excise them separately. In dogs if one parathyroid gland be dissected free from the thyroid lobe, taking care not to interfere with its blood-supply, and be left in the animal, and the rest of the thyroid gland on that side be excised and also the whole of the thyroid gland with its two parathyroid glands on the opposite side, so that only one parathyroid gland be left in the animal, the dog will live and no obvious effects will ensue; such, at least, is the usual result. If the parathyroid gland is subsequently excised the dog will die with the usual acute symptoms The parathyroid glands that are left in these experiments show signs of more active growth than the normal, but they do not develop into thyroid tissue proper No vesicles form This it will be noticed, tells against the view that was once held, that the parathyroid glands are undeveloped thyroid tissue

In rabbits the excision of the thyroid lobes with the two attached parathyroid glands, leaving *in situ* the two other parathyroid glands, produces, as already stated, no immediate effect, but if the animals are kept for several months the following symptoms may arise In four experiments I noticed (1) failure of health, (2) hair falling out, and (3) a swelling of the lower part of the face, presumably myxœdematous in nature Dr G R Murray of Newcastle has also observed myxœdematous changes coming on late in rabbits which have been deprived of their thyroid glands proper With respect to the condition of the eyes in these animals which have been deprived of their thyroid glands proper, in dogs I have not noticed, as a rule, any change, but in one dog still under observation there have recently come on symptoms—tremors and spastic gait—and for months past it has been noticed that the eyes have appeared sunken and the palpebral fissures narrower, these symptoms are getting worse In rabbits a series of experiments were made especially to test this point, the result was that there was found a marked tendency for the eyes to become narrow, if eventually the animals died from thyroid symptoms the eyes became very narrow

FIG 5 AND FIG 6.



The upper figure shows the normal secreting cells lining the vesicles of a dog's thyroid gland The lower drawing shows the same cells from a small portion of the thyroid gland which had been left together with a parathyroid gland 132 days after the greater portion of the thyroid gland had been excised The drawings are to the same scale (× 600)

MEMORIAL HOSPITAL COT—Dr W F. Clarke, as trustee of the estate of the late Mr James Ewen Maddilove, has forwarded to the treasurer of the City Orthopædic Hospital, Hatton garden, London, £1000 to endow a cot in memory of Mr Maddilove's daughter

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN – On May 1st, in fulfilment of a promise given some few months ago to the Duchess of Beaufort, Earl Roberts visited Bristol for the purpose of opening a bazaar held in Colston Hall on behalf of the funds of the Royal Hospital for Sick Children and Women Earl Roberts, who was received with great enthusiasm, in the course of his speech alluded to the fact that for some years past the annual expenses of the hospital had exceeded the income by £1300, and that at the present time there remained a deficit balance of £3000 The bazaar, which lasted for four days, was most successful, and it is thought that a substantial sum has been raised for the hospital

---

An Address

ON

THE IMPORTANCE OF THE TEACHING OF INSANITY TO THE MEDICAL STUDENT AND PRACTITIONER IN RELATION TO THE PREVENTION OF INSANITY.

Delivered before the South Eastern Division of the Medico-Psychological Association on April 24th, 1901,

BY ROBERT JONES, M D M R C.P. LOND,
RESIDENT PHYSICIAN AND SUPERINTENDENT, LONDON COUNTY ASYLUM, CLAYBURY

GENTLEMEN,—I venture to take for my subject the teaching of insanity in a somewhat wider sense than that for the medical student only; in part because of the increased public interest which the subject has caused through enormous expenditure necessitated in housing and accommodating the victims of this disease, in part, also, from the loss to the community through the permanent disablement and consequent unproductiveness of those who fail to recover from it Acres of print are blown on to us daily from the four winds, and some apology may be needed for pinioning these thoughts in manuscript and placing them before you Mine shall be this—that as we are all members of a great association to which this subject in all its bearings is and ever must be a matter of the very greatest concern I may be permitted to claim your attention upon an aspect which may tend very materially to modify its extension Such, I take it, is the aspiration of our hearts and the exertion of our hands

This association, which was established in 1841, can look back upon 60 years' record of lively and unbroken interest in the welfare of the insane It has ever assisted efforts made for the amelioration of those suffering from this most melancholy and grievous of human afflictions Its prosperity is in no small measure due to the manner in which its council has adhered to the objects for which the association was established—viz, "the promotion and cultivation of science in relation to mental disorder, the improvement of the treatment of the insane and the maintenance of the honour and interests of the medical profession generally" How the "medical profession generally" is to become conversant with this particular branch of medicine is the subject of this paper All of us are agreed that the commencement must be in the proper training of the medical student and many of us recall the difficulties which accompanied our own early efforts in the proper comprehension of this subject

Within a few years of the foundation of the association a general revival grew up in matters medical In 1855 an arts examination became necessary as a preliminary to a medical career, for which credit is due to the Society of Apothecaries In 1858 the Medical Act was passed creating a system of registration and bringing into existence the General Medical Council Since this year—recognising that the fundamental pathological conception of disease is biological—an infinite addition of subjects favouring in the main the appreciation of natural science has been made to the students' curriculum, and this has greatly influenced not only the intellectual status but also the social standing of the profession It was not until 1893, however, that the General Medical Council made it compulsory for the student to attend a special course of instruction in mental diseases Some of our teachers in the medical schools still consider a proper study of this subject to be subsidiary and only likely to distract the student from what they believe to be more urgent and more important departments I shall endeavour to give reasons why the study of mental diseases is in itself important by pointing out the bearing upon, and the utility of, this subject to the varied duties of a medical practitioner, and finally to suggest methods for its fuller and more complete apprehension

To day there are no less than 30,000 medical men (and women) in Great Britain and Ireland out of a population of over 40,000,000 Of this total there are nearly 145,000 persons (in England 108,000, in Scotland 16,000, and in Ireland 21,000) who are insane under more than 150,000 certificates, giving an average of one insane person to every 266 (or at the outside to every 300) persons of the population, or five certificates to every member of our profession. It is, moreover, asserted that for every certified insane person there is probably another who is either suffering from a threatened attack or who may be harmless and yet insane, and as to whose security and safety, either in his own home or in a special hospital, his medical attendant is expected to give the best advice.

The certificate referred to contains two propositions—one that the individual is of unsound mind, the other that he is unfit to be trusted with his liberty. Of these the second has a practical importance which it is difficult to over-estimate, for it not only dispossesses the individual of his liberty, but it also disfranchises him, deprives him of the control of his own affairs, alters his position to his friends and his responsibility to the law, and of necessity by disturbing his social relations causes the greatest distress to his relatives. In addition to this it causes in the present state of public opinion a stigma to attach to himself and all his connexions. He is practically incarcerated until he himself shows that he is entitled to his restoration. It is not surprising, therefore, that the law imposes upon the medical man a certain responsibility for this duty by enacting that "any person who makes a wilful mis-statement of any material fact in any medical or other certificate or in any statement or report of bodily or mental condition under this Act shall be guilty of a misdemeanour." As to the statements in certificates, it has been pointed out that there are singularities and eccentricities which do not constitute the minor degrees of insanity, and it has been asked if suspicions and conspiracies are in their nature necessarily insane? May not suspicions be reasonable or just? Is the world so pure and honest that persons never conspire against the prosperity of individuals? Can antipathy for those who were formerly loved be sufficient ground for incarceration? Are the acquaintanceships and friendships of sane men like the laws of the Medes and Persians? Are there no natural and reasonable changes from kindly feelings to animosity depending upon the sensibility of the individual? Where is the line between that excess which is, and that which is not, decisive of insanity? Are the facts assigned the result, as they should be, of a careful examination and a direct inquiry into the person's present conduct as compared with, and illustrated by, his demeanour and conduct through his previous life, or are they merely inferences? Realising this importance the law requires that one of the certificates shall, whenever practicable, be under the hand of the patient's usual medical attendant who is supposed to be conversant with his ethical standard and would be sooner able to notice and apprehend any change in his mental reaction, and the reasons for changes in his conduct. Failing this the petitioner (53 Vict., cap. 5, sec. 31) has to state the reason for the omission or the certificate is invalid.[*] It should never be *inferred* as a necessary consequence to singularity of mood and manner, or to delusions and unsoundness of mind, that the individual is a "proper person to be taken charge of and detained under care and treatment," but it should, as stated, be made the subject of direct inquiry and investigation. We are not concerned here as to what constitutes insanity, but Dr. Johnson probably lighted on the truth when he said that "madness frequently discovers itself merely by unnecessary deviation from the usual modes of the world."

Nor is certification the only or the greatest responsibility of the medical man, for as the confidential family adviser his opinion is sought for as to professions and careers. He is eagerly consulted by anxious parents as to the development or retardation of certain faculties in childhood and youth—their application and relation to certain modes of study, education, training, and business. He is expected to use his knowledge to interpret the origin and growth of these faculties under varying hygienic conditions, so that influences which may be hurtful shall be avoided and the organism—that organic whole—shall grow up into healthy maturity. He has placed before him the mental hygiene not only of individuals but also of families and their relation to society. It is his duty to see that the health of the community does not fall below the standard of efficiency, as is the inevitable tendency in the inhabitants of large cities where overcrowding fosters and favours the three great determinants of insanity—viz., syphilis, drink, and unsuitable marriages—and where also a vicious circle of other social evils is established which eventually requires the strong hand of the earnest reformer to eradicate. It is also his duty to educate the rank and file of the population by inspiring them with a sense of their corporate responsibility in regard to the baneful influence of these evils upon the health and well-being of the community. Knowing that preventive medicine has long since passed from empirical rules to an art based upon physiological discoveries, he has to bring an educated medical knowledge to bear upon the customs of our civilisation, so that brains which had a tendency to disease by inheritance should not be subjected to undue pressure—realising the fell effects of "stress" upon the hyper-sensitiveness of a highly organised brain whose cells have been rendered unstable through the selective action on them of a special toxin, and recognising at all times the true and full significance of the first signs of danger, so that the further onset and progress of disease might be arrested, and mental and physical surroundings be secured consistent with evolution along normal lines. He should thus be a student of social conditions, able to interpret, to clarify, and to utilise by whatever method science can adopt the multifarious and perplexing experiences presented to an intelligent mind, so as to assist in working out the problems of nature for the higher evolution of man, bearing in mind that progress consists in the advancement of humanity from the less to the more perfect—from homogeneity to heterogeneity—causing "manners to be milder, habits to be more social, institutions more just and liberal, knowledge more diffused, beliefs more reasonable, and life easier." The medical adviser is consulted, again, as to engagements and marriage, and that this is a serious question may be gathered from the fact that the insanity of nearly 10 per cent. of all women admitted into asylums up to the age of 45 years is referable either to pregnancy, delivery, or lactation. The destiny of the race does not enter into the consideration of matrimonial alliances as it should, and the education of women in the present day—upon whom the happiness of the home depends—tends to emphasise the pleasures of life rather than the happiness of duty. It is the work of the medical adviser to alter this and he should be a man of parts, accustomed to actual contact with men and matters, and to the comprehension of what things *mean*, how they *consist*, and why one event follows another. He should be able to give an opinion based upon an acquaintance with that biological law according to which all beings endowed with life tend to repeat the elements and functions of their organism in their descendants—a law which governs the subordinate no less than the dominant characteristics, and which involves internal and external structures with their physiological and psychological consequences. Again, the medical adviser may be consulted as to civil and testamentary capacity, and he may be called upon to decide questions of criminal responsibility. Crime is in many cases traceable to degeneration and to physical conditions similar to those associated with insanity, and these may co-exist or be combined in an infinite variety of proportions. In the study of mental pathology various physical abnormalities are frequently found, and although the measurements of individuals may give rise to great variations in every race there are some tangible differences by which the broader divisions can be distinguished, and we can find, at all events, that certain characteristics prevail in one and certain others in a different race. Anthropology will prove of value in determining the nature and amount of the resemblances and differences in the physical characters of the various groups into which the human species is divided, thereby throwing light upon their history and their origin and the relation they bear to one another. Such measurements as the cranial capacity, the cephalic (latitudinal or breadth) index—as giving the dolicho-, mesati-, and brachycephalic skulls; the altitudinal, alveolar, nasal, and orbital indices—all these furnish the basis of classification in craniometry, and should be familiar to the advanced student. As to responsibility, on the other hand, it incurs liability to authority and legal punishment, and before the question of criminal responsibility is decided the origin of moral distinctions, the freedom of the will, and the nature of conscience present themselves for consideration and discussion, for which an acquaintance with the disciplinary sciences, psychology, ethics, logic, and metaphysics, may prove at least serviceable if not necessary.

The medical adviser is also confronted with grave mental symptoms arising in the course of bodily diseases and these may require home treatment without the option of special hospital assistance. Obviously, therefore, there exists a considerable amount of brain disease involving abnormal mental conditions with which it is obligatory upon the medical practitioner to be conversant in all its phases This, confessedly the most difficult branch of medicine, must be approached in precisely the same manner as any other—physiology must precede pathology, experiment and induction must verify hypothesis The normal mind must be observed and studied before the abnormal can be understood, and the study is one which tends to develop the reflective and perceptive habits and helps to make the student quick to apprehend reasons for changes of conduct and so to bring himself into more complete harmony with his patient

Furthermore, one of the chief reasons why the medical student should be familiar with this study is that insanity is best and most successfully treated in its early stages, and its recognition in this stage becomes, therefore, most important The disease is more likely to be fatal in direct proportion to the delay which has taken place before commencing treatment—in other words, the earlier that cases of mental disorder come under treatment the higher is the percentage of recovery, and the chances of recovery diminish considerably and progressively as the time before commencing treatment increases in duration. The successful treatment of insanity means attacking the disease in its incipient stages—the stages of abstraction, reverie, pupillary changes, insomnia, and capricious appetite By observing these, calamities may often be averted, grave scandal prevented, and the innocent saved from ruin I have referred to the ban of society upon insanity Similarly in remote times was the view held as to surgery and obstetric medicine, but we can scarcely hope to remove this so entirely as has been done in other departments Insanity in ancient days was viewed as a disease of our moral constitution, based doubtless upon the fact that the disease may—as in the case of "stress"—be due to psychic causes The mind does very directly affect the body The perusal of a letter or the sudden communication of bad news may strike the stoutest to the ground and render the broken heart something more than a metaphor Fear can paralyse the limbs, hope can instantaneously give soundness and vigour to the frame as much as despair can render it lean and tottering A word, the sight of a person, will crimson the cheek In the presence of a materialistic philosophy we are in some fear of disregarding this aspect of causation. Aided by discoveries in physical and chemical methods, by the great progress of physiology and histology, we tend to believe, through accurate observation and accurate recording, that insanity is exclusively a bodily disease Gross mental decadence is certainly associated with great neuronal changes In dementia very obvious atrophic changes in the nerve-cell and marked destruction of nerve fibre plexuses are found Analogy, therefore, supports the belief that the so-called functional and hysterical conditions may be correlated with slight neuronal changes, and it is within the limits of possibility that these may be initiated by mental causes On the other hand, the organism is not an individual but a "social mechanism," it is a collective being and each of its single parts must be understood as a factor of existence The life of an organism is the sum of the lives of the single cells, and it is only intelligible by the life of each part Cells are composed of granules of organic chemical substances which are not themselves alive but the mechanical arrangement of which determines the direction and arrangement of their activity These granules, which form the working units of the cells, are—viewed from the materialistic side—probably storehouses of energy, the breaking up of which is accompanied by a liberation of energy as possibly manifested in delirium Indeed, it has been observed and recorded that nuclear degeneration within the nerve-cell is peculiarly associated with certain states of motorial and mental instability.

As to the *materies morbi* in mental diseases we are probably upon the threshold of important discoveries Physiological chemistry reveals substances in the animal body which are capable of affecting unfavourably the somatic and neural cells, and we are able to separate the effects of these toxic agents according as to whether or not the symptoms which accompany the morphological changes induced in these cells are specific and tangible, and therefore pathogenic As to this great question of toxicity we know that all living organisms both in health and disease are manufacturing toxins—"toxicity" being a term which has come to signify the various alterations of nutrition from the normal standard—and we know also that these may be neutralised by antitoxins which, whether they are toxoid or of the nature of a proteid molecule, enable the organism by means of these immunising substances to resist the invasion and to stop the growth of a deleterious disease otherwise fatal to it, possibly by the linking-on of toxin to proteid bodies and the formation of "anti-bodies" The toxins generated within the system by excessive production or imperfect excretion give rise to symptoms of auto-intoxication which can in many bodily diseases, such as gout, rheumatism, dropsy, influenza, pneumonia, and typhoid fever, be separately identified Possibly toxins due to altered or varying assimilation may be at the root of the different temperaments and the elements of personality may be thus explained. "The fathers of medicine" may have been more correct as to the explanation of diathesis by humoral variations than it is our wont to believe We now know that the brain, like other tissues and organs, is composed of cells and their derivatives, and it probably reacts similarly to the influence of organisms and agencies, but it is only by minute microscopic and chemical investigation that the essential nature of disease, whether of the brain or other organs, can be ascertained. The grey mantle of the cerebral cortex has long been recognised as the sole organ of mind, affecting and dominating all the tissues of the body, controlling their functions and regulating their energies It occupies the "supreme rôle" in the nervous hierarchy. It is here that the "tissue of the mind" lies and it is here, also, that the activities work which underlie conscious states This grey envelope merits study, for it receives the terminal extensions of all in-going channels from the outer world and forms the origin of all out going currents to the outer world.

I have now shown how important is the study of brain functions and mental disorders and how this is a subject which concerns the jurist, the sociologist, the biologist, the priest, and the politician I have referred to and enumerated the various ancillary sciences which assist its complete apprehension As, however, for the student the number of subjects is extensive and the number of facts to be acquired appalling and as he is already almost overpowered by his load, we must be content with less of the disciplinary requirements than should otherwise be exacted and insist somewhat upon the simplification of learning, urging only those portions which are eminently practical, remedial, and to the point, so that the mind should be trained in accurate and methodical observation to seek for truth in her many masqueradings. The student should be fully conversant with neurological methods and have a technical knowledge of those made especially clear to him in the histological course. Further in the separate course upon pathology he should be trained in the preparation of specimens and the methods of staining morbid tissues more especially in relation to changes in the normal secretions—what may be called clinical microscopy. He should receive a more practical instruction in the use of physiological instruments and be accustomed to the ordinary manipulation methods of blood examination, pressure instruments, and chemical analyses His medical training should include especially ophthalmology and the application of medical electricity. As complete a knowledge of psychology or mental physiology as the present state of the science admits is strongly urged by means of a systematic course of instruction upon the normal processes of the mind. The senses being the ordinary avenues of experience must be understood and their action and reaction explained by the modern methods of psycho-physics with especial reference to the laws of stimulation Terms should be explained and defined and such mental activities as apperception, memory, belief, attention, reasoning, will, judgment, and imagination fully entered into, so that their abnormalities—illusions, hallucinations, delusions, obsessions systematised beliefs, and other anomalies of the will—may be more fully appreciated Owing to the metaphysical aspect of ethics this branch may be left to the more advanced student The great end in view being the early recognition and the practical treatment of cases which students are likely to meet with in general practice, great stress should be laid upon clinical instruction The different forms of insanity should be described in a systematic course of lectures and each such lecture should be alternated by describing and showing typical cases in the hospital or the asylum. The student should be encouraged to come into actual contact with cases by signing certificates of cases already under treatment, such as those who would come up for re-certification, and he should also be brought in to watch the treatment—medical and moral—of actual cases. He should be present at the post-mortem examinations and have typical pathological demonstrations made to him. The whole of the course should be interrupted by occasional oral and written examinations personally and in class.

I would further suggest that the conjoint colleges and the new London University—following in the line of our own association—should inaugurate a diploma in mental diseases similar in scope to that in public health and that all medical officers of asylums and hospitals for the insane, and those attached to licensed houses, should be encouraged to take it, until eventually it would become a recognised and necessary qualification to hold office—as is the diploma referred to for medical officers of health. The fact that at the present time there are about 1000 appointments in this branch of medicine in the United Kingdom, from that of Lunacy Commissioner downwards, should imply an honourable obligation that the holders of these offices should themselves be equipped with as full a knowledge of this subject as can be comprised in the general technique of neurological methods, psycho-physics, and the special philosophical disciplines of logic, psychology, and ethics, together with a complete systematic and clinical knowledge of insanity and the enactments bearing upon it.

One word as to the unifying of knowledge which is presented to our experience. The philosophical thinker who reflects upon the meaning of life—and we all do so in our different ways—attempts to arrive at his conclusions in a reasoned and comprehensive way. He attempts to get at the vital and essential meaning of the world in its entirety and not exclusively in reference to the laws of a certain group of facts He dwells (1) upon the importance of conduct; (2) upon the nature of the external world; and (3) upon the existence of super-sensitive realities. Far be it from me to suggest that the expert in mental diseases should attach undue importance to the abstract aspect of this subject, but I think that if the actual values of our experiences could be harmonised and united certain questions must of necessity present themselves, such as the origin of knowledge, the basal reality which gives us the unity between mind and matter, and the purposive or mechanical relationship which these bear to the laws which govern the material world. Such considerations may help to give us the unity we seek and present to us a more simple system by which life as a whole and the conception of things can be appreciated.

Finally, as to the further prevention of insanity, I would venture to hope that every public asylum in the country should become a school for a post-graduate course of teaching, affiliated if possible to a general hospital, where not only the undergraduate could receive practical instruction by offering them clinical clerkships and other posts, but also where any qualified medical practitioner could refresh his knowledge of the subject in all its bearings through one or other of the medical officers and to whom by means of an introduction from the local medical practitioner, or a member of the visiting committee, any applicant suffering from premonitory symptoms of incipient insanity could apply for advice. This, or a modification thereof, has been inaugurated for some years at the West Riding Asylum, Wakefield, and recently at the Dorchester Asylum, and in certain general hospitals, more particularly in London, the experiment has proved eminently satisfactory. The London County Council and other public authorities have now the opportunity of supplementing university training and rivalling the enterprising action of the Edinburgh Corporation who, by their enlightened and beneficent scheme inaugurated in the past the great extra-mural school of medicine which has now become the school of the Royal Colleges of Physicians and Surgeons. Their action would tend to improve the teaching of this subject, which beyond all others inspires terror and causes a sense of helplessness; it would also tend to the stimulation and endowment of chairs in the new University of London, and thus promote the public weal by encouraging the rich to contribute to their own freedom from disease, as well as assist those who could not avail themselves of the best advice. As the aim of our profession, which can claim to be altruistic above all others, is to render growth more perfect, decay less rapid, life more vigorous, and death more remote, he who, with hope as his watchword, succeeds, to whatever degree, in modifying this dreaded affliction, will not only have added to the alleviation of human suffering, but also have conferred material benefit upon those who are to come. He will have raised a monument to his fame far more durable than one of brass or marble, whose tablet shall be the heart of man and the letters thereon engraven by the tears of gratitude.

LOCAL v. GENERAL ANÆSTHESIA IN CERTAIN CASES OF ABDOMINAL SURGERY.

By THOMAS H. MORSE, F.R.C.S. Eng.,
CONSULTING SURGEON, CROMER HOSPITAL, AND VICTORIA COTTAGE HOSPITAL, WATTON.

THE subject of shock after operations and how to prevent it has often engaged my attention and I have wondered how much of the shock should be attributed to the operation itself and how much to the anæsthetic. Shock varies in proportion to the skill of the administrator and is often dependent upon the duration of the operation, and hence upon the amount of the anæsthetic which is inhaled. I have also observed that when abdominal sections have been performed with local anæsthetics little or no shock has followed. The causes of shock are especially twofold—viz., the anæsthetic and the extent of injury to nerve-structures produced by the operation.

I wish to consider this subject for the following reason. There are some patients whose condition of extreme exhaustion is such that the additional shock of general anæsthesia will just take away their only chance of life. Most of these are refused operation. The cases which I refer to are those of acute peritonitis, internal hæmorrhage, and intestinal obstruction. In the last class there is an additional special danger in all cases of stercoraceous vomiting; when ether or chloroform are given it is very likely that while the patient is unconscious some of the fæcal matter will be regurgitated from the stomach and sucked into the air-passages Now all of these are cases for operation with a local anæsthetic They are all desperate cases in which the patients if left to themselves will nearly all die, but many can be saved by a dexterous operation if performed without general anæsthesia I cannot better illustrate this subject than by quoting a few cases.

CASE 1. *Puerperal peritonitis.*—A primipara, aged 19 years, whom I saw with Mr. E. W. Everett on the fifth day after labour, was suffering from acute peritonitis. The abdomen was generally distended so that respiration was rapid and impeded, vomiting was frequent, and the pulse was extremely feeble (about 160 per minute) and only to be counted with difficulty. All the other distressing symptoms which usually accompany this condition were also present. Evidently neither ether nor chloroform could be borne. Mr. Everett injected six grains of eucaine under the skin in the middle line between the umbilicus and the pubes, and after waiting a few minutes I made an incision in the same place. No pain was caused by this. As rapidly as possible a large quantity of thin purulent fluid was washed out of the abdomen. No shock followed; in fact, the pulse was much improved, all the symptoms were relieved, and during the next few days her condition changed from one of impending death to one of apparent convalescence. I regret, however, to say that she did not recover, but died from sepsis somewhat suddenly at the end of a week.

CASE 2. *Ruptured tubal pregnancy.*—A woman, aged 27 years, whom I saw with Mr. T. A. Alexander at Watton, had been married for seven weeks and had menstruated only a fortnight before. She was suddenly seized with violent abdominal pain, followed by all the signs of internal hæmorrhage. There was extreme pallor of the face, the gums, and the lips, and the pulse could only imperfectly be felt, and could not be counted for 15 hours preceding the operation. The patient was most profoundly collapsed Mr. Alexander at once saw the necessity for operation, but at the same time he considered that no anæsthetic could safely be given. Accordingly it was decided to open the abdomen under a local anæsthetic. Water was freely administered by the mouth and per rectum.

Mr. Alexander used anestile to freeze the skin in the middle line below the umbilicus, and I then made an incision about three [illegible] the same time asking the patient if she [illegible] replied that she did not; neither was [illegible] cutting through the remainder of the abdominal wall. I found that the hand could be gently introduced into the abdomen without pain for the purpose of removing blood-clots, of which the whole cavity was full. The only painful part of the proceeding was that of dragging on the broad ligament for the purpose of pulling the ovary and tube up into the wound in order to ligature and remove them. The tube contained a pregnancy close to its uterine end not larger than a hazel-nut which was probably of less than a fortnight's duration. The abdomen was washed out as quickly as possible, several pints of warm water being purposely left inside, and the wound was closed without drainage. The pulse began to improve and could be counted directly after operation (160 per minute). No shock was caused and no part of the whole proceeding appeared to be very painful. In a few days the pulse had regained its volume and the patient, after much care from Mr. Alexander, completely recovered.

CASE 3. *Ruptured tubal pregnancy.*—A woman, aged 27 years, whom I saw with Dr. C. B. T. Musgrave and Mr. H. C. Dent at Cromer, arrived at that town by an excursion train from London in a very exhausted condition with all the signs of internal hæmorrhage. She was blanched and almost pulseless, and, in fact, in such a feeble state that no general anæsthetic could be given. The diagnosis of ruptured tubal pregnancy was made and it was decided to perform abdominal section. Mr. Dent froze the skin between the umbilicus and the pubes with anestile, Dr. Musgrave assisting. An incision was made three inches long without causing the patient to show any sign of pain; immediately the peritoneum was opened black blood escaped in considerable quantity. The right broad ligament contained a mass of about the size of a bantam's egg attached by recent adhesions to the surrounding structures. I found that pain was caused by dragging upon the broad ligament, but not by ligaturing it—in fact, I found that the patient complained more of pain from the heat of the water (110° F.) than from all the rest of the manipulations. Having removed the pregnant tube and the ovary the blood was washed out with a large quantity of hot water, several pints of the latter being purposely left in the abdomen, and the wound was closed without drainage. The patient's recovery was complete and was chiefly due to the unremitting care and attention that she received in the Cromer Hospital.

CASE 4. *Intestinal obstruction.*—A man, aged 61 years, whom I saw with Dr. F. L Pochin at Fakenham, upon whom it was decided to perform inguinal colotomy, was refused a general anæsthetic because, although the pulse was a fair one, he had stercoraceous vomiting. Eucaine was injected and after a few minutes the skin was frozen with ether spray. I then made an incision three inches long, very little pain being experienced while this was being done, and although the muscles twitched more than is usual with a general anæsthetic the man made no complaint on their being cut. The introduction of Paul's tube into the bowel was also painless. The operation was followed by no shock and the small amount of pain which was caused was easily borne, but the relief given was only temporary and the patient died about a week later.

CASE 5. *Strangulated hernia.*—A woman, aged 67 years, whom I saw with Mr. G. E. Deacon of Hethersett, was suffering from strangulated femoral hernia of 34 hours' duration. General anæsthesia was decided against on account of the vomiting and because there was a double aortic murmur. The skin over the hernia was frozen with ethyl chloride and the operation was accomplished with very little pain. There was no shock and recovery was uninterrupted.

As a contrast to the above cases I relate another case of intestinal obstruction which well illustrates the danger which I have alluded to when the stomach contains fæcal matter, as it did at the time of operation.

CASE 6.—A woman, aged 42 years, who was the subject of umbilical hernia, had had signs of incomplete obstruction lasting for nearly a week, the neighbourhood of the umbilicus being the chief seat of pain. The diagnosis was made that there was some adhesion causing partial obstruction connected with the old hernia. Ether was administered, the abdomen was opened, and a band was found adherent to the intestine and to the abdominal wall in such a way as to cause contraction of the calibre of the bowel. The band was divided and the obstruction was relieved, but while the abdominal wound was being sutured regurgitation of fæcal matter took place from the stomach and a small quantity of it was sucked into the air-passages. The patient immediately became cyanosed, and although she soon after regained consciousness and could speak yet she was unable completely to expectorate the fæcal matter and she remained in the same condition, breathing with difficulty, for four hours, when she died. This operation was quite a short one and would not have been painful if performed with a local anæsthetic.

I hope by the above cases to draw attention to the fact that life can be saved by operation even in desperate cases if general anæsthesia is avoided; it is also probable that pain is less acutely felt when the patient is *in extremis.*

Norwich.

THE ETIOLOGY AND TREATMENT OF CONVERGENT SQUINT[1]

By CLAUD WORTH, F R C.S. Eng.,
OPHTHALMIC SURGEON TO THE WEST HAM HOSPITAL; ASSISTANT, ROYAL LONDON OPHTHALMIC HOSPITAL.

I HAVE not been able to go through all my squint case-books in time for this paper, but my conclusions are drawn from the notes of 1278 of these cases. I shall endeavour to confine myself to facts based upon the experience of these cases and to avoid anything of the nature of theory or opinion.

The indifference often shown by laymen about squint in their children is very remarkable, yet when these children grow up, often with a hideous deformity only partially hidden by spectacles and usually with more or less blindness of the deviating eye, the patients or their parents would do almost anything if a cure could then be effected. There are few things more distressing than to have case after case presented for the first time only when irretrievable damage has been done by delay. There are two popular ideas to which this delay is often due. First, it is thought that the child may "grow out of the squint." In some rare cases the deformity does disappear spontaneously, but even in these cases the sight of the deviating eye is often much impaired, and binocular vision is very imperfectly acquired, if at all. Secondly, it is thought that if the child is treated for squint he will have to wear glasses always. The exact opposite is the case. A very large proportion of squinters, *if brought early* and treated in the manner which I am about to describe, will, before the age of puberty, be able to lay aside their glasses entirely, or perhaps to use them only for close work. Whereas, if no attempt be made to train the fusion faculty until the child is, perhaps, six years old, binocular vision, even if it be subsequently acquired, will be of such a feeble kind that it will never be able to withstand the strain of uncorrected hypermetropia.

The limited time at my disposal forbids my giving reasons for everything that I may say, so that, if my remarks seem dogmatic and contrary to generally accepted views, I hope that you will believe that I make no statement which I have not thoroughly investigated and proved for myself.

BINOCULAR VISION.

The fields of vision of the two eyes overlap everywhere except for about 40 degrees on the temporal side of each eye. When a distant object engages our attention the two eyes are brought into such a position that a picture of the object is formed simultaneously on the central part of each retina. Similarly all other distant objects, within the limits of overlapping of the visual fields, are focussed on *functionally* (not necessarily mathematically) corresponding points of each retina. The impressions thus received from the two eyes are blended in the brain so that we are conscious only of one single picture. This psychical blending of the two sets of impressions is called "binocular vision."

The fusion faculty is the potential faculty of binocular vision. For instance, a patient who has a convergent squint of 30 or 40 degrees may, during the continuance of the squint, have his fusion faculty trained and developed by means of the amblyoscope. This squinting patient ordinarily, of course, has not actual binocular vision, only a trained fusion faculty. But, while this patient is looking into the amblyoscope, and also after the cure of the deviation, the fusion faculty finds its expression in the act of binocular vision. In many cases a trained fusion faculty is in itself sufficient to cure the deviation. The fusion faculty is the key to the whole subject of the etiology and rational treatment of convergent squint. A patient may be highly hypermetropic and astigmatic and congenitally amblyopic, but if the fusion faculty is well developed it is extremely unlikely that he will ever squint. Conversely, in the case of a child who already squints, if the fusion faculty be trained *early*, in the manner which I am about to describe, the tendency of the case thenceforth is strongly towards cure. But to get this potent quality of binocular vision orthoptic training must be carried out early, not much later than five years of age, at a time when the development of the fusion faculty should normally be taking place. In investigations which I made with lights, prisms, &c., on healthy children in two large crèches I found the first distinct evidence of binocular vision at the age of six or seven months. The results of orthoptic treatment in young squinters seem to show that the fusion faculty normally reaches its full development by the end of the sixth year.

---

[1] A paper read before the Hunterian Society on April 24th, 1901.

CONVERGENT SQUINT.

In most of the text-books squint is defined somewhat as follows: "Squint consists in a deviation of the visual axis of one of the eyes from the correct position of fixation" (Fuchs). The authors have mistaken a single symptom for the whole disease. One might as well describe spinal caries as "a deviation of the spine from its normal shape." In a case of squint there is, in addition to (1) the deformity, (2) a defective development of the fusion faculty, (3) nearly always a suppression of the vision of the deviating eye, (4) in the great majority of cases more or less amblyopia of the deviating eye, and (5) refractive error. A mere remedying of the deformity of squint cannot therefore be claimed as a cure. We should aim at establishing binocular vision.

Even a monolateral squint is really a binocular affection. For instance, when we say that a certain patient squints with the right eye, what we really mean is that there is an abnormal convergence of both visual axes, but that the left being the better eye this eye is required to look straight ahead. In order to effect this both eyes make a conjugate movement to the left, so that while the left eye looks straight ahead the deviation of the right eye is doubled.

It is especially important to remember that squint is not a muscular affection. I find the power of independent outward rotation of each eye separately quite normal in 83·2 per cent. of my cases. In 9 per cent. there was some defect of abduction of each eye, and in only 7·7 per cent. was there any defect of outward movement confined to the deviating eye.

The deviation of a constant squint consists in an abnormality of the converging mechanism, whereby the zero of convergence becomes some cross-eyed position, instead of parallelism, of the visual axes. Dynamic convergence can take place within the zero, but divergence beyond the zero is only possible to a very limited extent. When one eye is better than the other it becomes the fixing eye and the squint is monolateral. When both are of equal value the squint is frequently alternating.

Squints are commonly divided into: (1) occasional; (2) constant monolateral; and (3) alternating.

1. *Occasional squints.*—These, which are sometimes incorrectly called "periodic" squints, arrange themselves into two distinct groups which we may call (*a*) true occasional squints, and (*b*) premonitory occasional squints. True occasional squints occur under all sorts of conditions. Some patients squint only in near vision, some on looking down, some under the influence of any strong emotion some without any evident exciting cause. In many cases there is considerable refractive error, the optical correction of which usually, but not always, relieves the condition I have notes of a few cases (which may properly be called periodic) in which the squint has manifested itself every alternate day as regularly as a tertian ague. As a rule, the vision is good in both eyes. The majority of patients, but not all, have some slight degree of binocular vision when the squint is not manifest. When the deviation is present there is diplopia in some cases in others the vision of the deviating eye is temporarily suppressed. A true occasional squint may disappear spontaneously or it may maintain its character unchanged throughout life. Cases of the second group, premonitory occasional squints, are simply the precursors of constant monolateral squints. Premonitory occasional squints become constant after lasting usually from two to six months During the occasional stage optical correction will in the majority of cases, but not by any means in all, prevent this change and cure the squint.

2. *Constant monolateral squints.*—In constant monolateral squints the deviation is constantly present and is always manifested by the same eye, though the angle may vary.

3. *Alternating squints.*—Alternating squints are those in which, though there is always an abnormal convergence of the visual axes, the patient is able to fix, and to maintain fixation, with either eye at will without covering the other. Alternating squints suffer much less than monolateral squints from neglect or inefficient treatment, because each eye is used in turn. But it is far more difficult to get a perfect cure in a case of alternating squint The reason is not far to seek. In a case of alternating squint the visual acuity is usually good in each eye, the refraction of each eye is usually very nearly the same, and in many cases there is little or no refractive error. If such a pair of eyes become dissociated it means that the fusion faculty is in a very rudimentary condition. As a matter of fact, in these cases it sometimes appears to be congenitally absent, so that training with the amblyoscope, even as early as at three and a half or four years of age, fails to develop even the lowest grade of binocular vision. Of all constant squints about 89 per cent. are monolateral and 11 per cent. are alternating.

The age at which the deviation first appears.—Of the 1278 cases under consideration I was able to make out with some approach to accuracy the age at which the deviation first appeared in 809 cases:—Before one year of age, 102 cases, or about 12½ per cent.; between one year and two years, 142 cases, or about 17½ per cent.; between two and three years, 195 cases, or about 24½ per cent.; between three and four years, 159 cases, or about 19½ per cent.; between four and five years, 91 cases, or about 11 per cent.; between five and six years, 58 cases, or about 7 per cent.; and after six years of age, 62 cases, or about 7½ per cent. It will thus be seen that in 74 per cent. of the cases the deviation appeared before the end of the fourth year and in only 7½ per cent. was its appearance delayed until after the end of the sixth year.

At the first appearance of a monolateral squint there is often a considerable degree of congenital amblyopia in the deviating eye, and occasionally in the other eye also But the deviating eye *always* at first has the power of fixing when the other eye is covered. If the case is left to take its own course, or if the child receives merely the usual routine treatment with glasses, in the great majority of cases the deviating eye becomes blinder—there is an amblyopia from disuse superadded to any congenital amblyopia which may be present. In a considerable proportion of the cases, after a time the deviating eye loses the power of central fixation. Its visual acuity is then reduced to the counting of fingers. This loss of central fixation is especially prone to occur in young squinters. So much so that there is a widespread belief, even among ophthalmic surgeons, that an eye which deviates during the first 12 months of life is necessarily very blind. Yet this is not the case. Of the cases which I saw within six months of the first appearance of the deviation I do not find the young squinters especially amblyopic. It is true that in about 30 per cent. of constant monolateral squints treated by glasses alone the eyes eventually become "straight," but in the majority even of these cases considerable damage is done before this result is attained.

The spurious squint of infants.—During the first few months of life, when the muscular and visual coordinations of the eyes are in a very rudimentary condition, it often happens that the eyes momentarily converge or diverge in response to some gastric or other disturbance This is of no importance. If, however, the deviation lasts several minutes, or if one eye deviates while the other steadily fixes some object, and more especially if the deviation is always exhibited by the same eye, the case is one of true squint and demands treatment without delay.

ETIOLOGY.

The one essential cause of squint is a defective development of the fusion faculty. This is frequently associated with other developmental defects, such as an abnormal shortness of the eyeball (hypermetropia) and congenital amblyopia Hypermetropia, anisometropia, and congenital amblyopia may any or all be present, but with a normal fusion faculty there will be no squint Or the fusion faculty may alone be defective or even congenitally absent, in which case there is usually an alternating squint with perfect vision in each eye

A hypermetrope, to see distinctly, must use his accommodation, even in distant vision Normally an effort of accommodation has associated with it a convergence of the visual axes In this way hypermetropia causes a *tendency* to abnormal convergence, but is not in itself sufficient to cause squint If, however, the fusion faculty be defective the patient is ready to squint on slight provocation The abnormal hypermetropia often associated with a defective fusion faculty may supply this provocation Or the immediate exciting cause may be a sudden fright, a blow on the head, or, commonest of all, the violent straining of whooping cough How these upset the equilibrium of the converging mechanism I do not know, but they are powerless in the presence of a normal fusion faculty I have been fortunate enough to see several children, who have begun to squint later than usual, within a few days of the commencement of the deviation In many of these cases I have examined the fusion faculty with the amblyoscope and have always found it ill developed

CASE 1 —A boy, aged five years and two months, was brought to me at the West Ham Hospital He had a monolateral squint which first appeared six days before I examined his fusion faculty which I found very defective. I got the mother to bring three other children who did not squint In two of these children the fusion faculty was normal, in the other, a boy, aged four years and one month, it was very poorly developed I told the mother that this child would very likely squint, 11 weeks afterwards he was brought to me with an alternating squint, which appeared after a severe scald from trying to drink from the spout of a teapot I have since been able to examine a younger child in the same family and, having found the fusion faculty normal, I have ventured to promise the mother that this last child will never squint

Congenital amblyopia and anisometropia predispose to squint by lessening the value of binocular vision Heredity is a very strong predisposing cause of squint In the 1278 cases under consideration I was able to get some family history in 1028 cases Of these there was a history of squint in father, mother, brother, or sister of the patient in no less than 527 cases, or about 51 per cent

TREATMENT

In the treatment of convergent squint four objects should be kept constantly in view (1) to prevent the loss of central fixation in the deviating eye, (2) to prevent deterioration of vision of the deviating eye, (3) to train the fusion faculty at the earliest possible age, and (4) to restore the visual axes to their normal relative directions

Take first the case of an infant with a constant squint After measuring the angle of the squint and ascertaining the refraction by retinoscopy under atropine, glasses, fully correcting the hypermetropia and astigmatism, are ordered, if possible, to be worn constantly The age at which glasses will be tolerated depends to a certain extent upon the disposition of the child, but chiefly upon the degree of refractive error A child whose hypermetropia and astigmatism combined amount to 4 D or 5 D will usually wear glasses well as soon as he is able to crawl It then becomes chiefly a question of the skill of the optician in fitting the frames At the Royal London Ophthalmic Hospital (Moorfields) I have sent Mr Hawes many children under 12 months of age and he has always managed to make frames which will stick on Of course these young children sometimes break their glasses but I have never known a case in which the eye has been injured

Next, in order to exercise the deviating eye, and so to prevent deterioration of vision or loss of the power of fixation in this eye, I order one drop of liquor atropinæ to be put every morning *in the ' straight" eye only* to abolish its power of accommodation The child will then continue to use the (atropised) fixing eye for distant vision But in looking at anything close at hand he quickly learns to use the squinting eye in which the power of accommodation is not interfered with In this way amblyopia from disuse is avoided and central fixation is preserved in the deviating eye The drop every morning in the fixing eye only is used for the first 14 days in each month till the deviation is cured or the child is old enough for exercises with the amblyoscope Of course, covering up the better eye for four hours or so every day would do as well, but very few parents will take the trouble to do this for years at a time, to say nothing of the inconvenience to the patient A common practice with many surgeons, and one invariably recommended in books, is to order atropine for *both* eyes for months at a time, for squinters who are supposed to be too young for glasses This is wrong in principle and worse than useless in its results. Atropine never brings about a permanent cure of the squint, but in some cases it causes a temporary cessation of the deviation These last are just the cases in which a pair of glasses given early, would be likely to effect a cure Moreover, the deviating eye is usually the more hypermetropic, so that to paralyse its accommodation with atropine is the very way to insure that this eye shall never under any circumstances be used

Next consider a neglected case in which acquired amblyopia or even loss of central fixation in the deviating eye has been allowed to occur Usually not much improvement can be got when the damage has once been done One often, however, sees a slight improvement in the vision of the deviating eye after the shade or atropine has been used for the fixing eye for some time Now and then one gets a considerable improvement When central fixation has been recently lost in the deviating eye, if this eye wanders without taking up any definite position of false fixation, continuous occlusion of the better eye for two or three weeks will sometimes restore its fixation power If, however, the deviating eye takes up a definite position of false fixation the case is quite hopeless

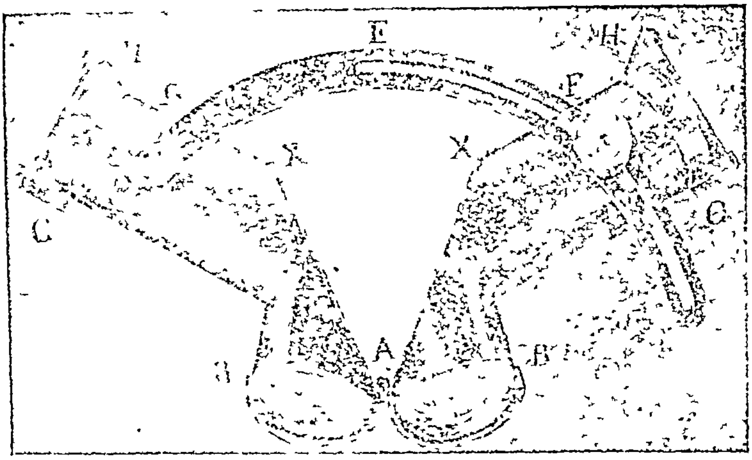
CASE 2 —A boy, aged six years, whose right eyeball had been ruptured by the end of a gas pipe, was brought to me The eye had to be excised The left eye had squinted inwards since the age of two years, and fixation was lost It is now four and a half years since the accident to the good eye and the enforced use of the amblyopic eye during this period has produced no improvement He can only count fingers at a distance of eight feet

Of cases which are treated by glasses alone in about 30 per cent the deformity eventually disappears But even in these cases the deviating eye often becomes very blind in the interval And even in the cases in which some sort of binocular vision is picked up *a la grâce de Dieu* it is usually of such a feeble kind that glasses must be worn throughout life for fear of a return of the deviation So that optical correction, though a most useful auxiliary, is very unsatisfactory as the sole means of treatment

The rational method of treatment is to endeavour to remove the cause of the squint by training the fusion faculty at an age when binocular vision should normally be developing There are three great difficulties in the way of fusion training in these young children (1) the vision of the deviating eye is "suppressed," so that although the sight of this eye may be perfect the patient is unable to use it except when the other eye is covered, (2) the angle of the squint is usually so great that even if there were no suppression both eyes could not at the same time look into an ordinary stereoscope, and (3) these young children will only submit to the treatment so long as they find it interesting

In 1895 I made the tin instrument which I show you to-night The other instruments shown are brass copies of the original made for me by Mr Hawes of 79, Leadenhall street, London, E C I have called it ' Amblyoscope"—an instrument by means of which an amblyopic eye is trained to take its share in vision (Fig 1) The instrument consists of two halves joined by a hinge at A, in the diagram Each half consists of a very short tube joined to a longer tube at an angle of 120 degrees. At A X is an oval mirror At G H in each tube, is placed a small glass object slide At A B is a lens, the focal length of which equals the distance of the reflected image of G H In addition to these lenses there are slots at A B into which other lenses from the trial case may be put, to correct the refractive error of the patient The two halves of the instrument can be brought together to suit a convergence of the visual axes up to 60 degrees or separated to suit a divergence of as much as 30 degrees The pairs of object-slides are drawn on translucent paper stuck on glass slips These are of three classes The first class consists of pairs of devices such as a clown and a hoop, a mouse and a trap, &c These require no blending of images but only simultaneous vision. The second class consists of devices, part of which are on each slide, so that a blending of the images must take place in order that the full picture may be seen. The third class consists of stereoscopic pictures which, when combined, give an impression of the third dimension.

FIG. 1.



The Amblyoscope.

The methods of vision-testing and of investigating and training the fusion sense in young children I have gone into much more fully in a paper read before the Ophthalmological Society of the United Kingdom, so I shall only refer to it very briefly now. Take as an example a young child whose deviating eye has not much less than one-fourth the visual acuity of the fixing eye. I take the child on my knee and adapt the amblyoscope roughly to the angle of his convergence. The instrument is then held before the child's eyes and an electric lamp is put in the axis of each tube about four feet away. By a simple mechanical arrangement each lamp is easily brought nearer to, or put further away from, the tube which it illuminates (ordinary paraffin lamps will do just as well). A slide showing a hoop, for instance, is put in the tube before the child's fixing eye and a clown in that before the squinting eye, and the child is told what to look for. At first he sees only the hoop. The lamp before the fixing eye is then taken further away, and that before the squinting eye is brought nearer until the child sees the clown. By this time he has lost sight of the hoop. The intensities of the illuminations are then readjusted until the child sees both the clown and the hoop. The child is then allowed to grasp the instrument and, assisted by the hands of the surgeon, is taught to vary the angle of the instrument so as to make the clown go in and out of the hoop. Many other similar pairs of slides are then shown. An ordinary child of three and a half or four years of age takes a very keen interest in this game which he imagines to have been invented merely for his amusement. Devices which require a true blending of the images are then shown. After a time it is often found that the angle of the instrument may be altered to a very considerable extent, either in convergence or divergence, while the eyes follow the objects and maintain fusion of the pictures. Often one gets a very powerful "desire" for binocular vision in these young subjects with surprising facility. The next step is to equalise the intensities of the lights. This may usually be done at this stage without a return of the suppression. In many cases one is able to diverge the two halves of the amblyoscope more and more at each visit till the deviation disappears entirely. In other cases operation may be necessary. If, then, the eyes are put approximately "straight" the desire for fusion will fill up any slight gap that may remain. However the actual remedying of the deviation be effected, if the child has this powerful "desire" for fusion (which can only be acquired in early childhood) a perfect cure of the squint results. The child will then in most cases be able after a time to lay aside his glasses except for reading.

The special points of the amblyoscope are: (1) it is adapted for use during the continuance of a squint of any degree; (2) the suppression of the vision of the deviating eye is quickly overcome by the unequal illumination of the object-slides, instead of by the slow and painful method, recommended by Javal and others, of continuous occlusion of the better eye for months or a year at a time; and (3) the variety of the pictures amuses and interests the child, so that he will give all the help he can.

OPERATION.

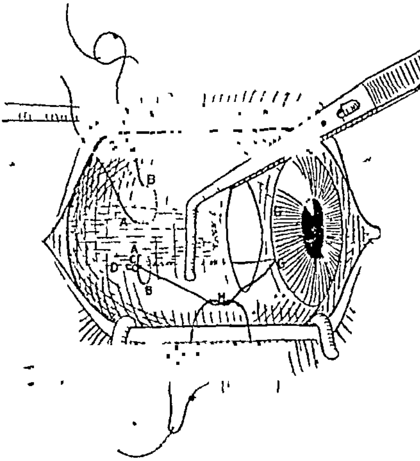
Age.—If I am unable to get binocular vision I do not usually operate before the age of eight or nine years. If, however, exercises with the amblyoscope have produced a strong "desire" for fusion I have no hesitation in operating at any age. Operation is *indicated* when the periodic measurements of the angle of the deviation show that this is either not decreasing or is decreasing only very slowly. The dynamic convergence should always be examined. If the fixing eye, after looking at a distant object, suddenly fixes a nearer object the deviating eye will roll still further inwards, a dynamic convergence being superadded to the abnormal static convergence. If the dynamic convergence is very deficient simple tenotomy is strongly contra-indicated. If binocular vision cannot be obtained, and a removal of the deformity is all that can be hoped for, and if dynamic convergence is good, it does not matter so much what operation is done; though the wide palpebral fissure and slightly proptosed eye often seen after tenotomy do not improve the personal appearance of the patient. But if I have been able to develop the fusion faculty and I expect to get binocular vision after operation, I never do a tenotomy except in combination with an advancement. I once used to tenotomise these cases sometimes for want of beds. Several of these patients have since suffered from insufficiency of convergence and pain in the eyes in near vision.

The operation of advancement of a rectus muscle.—The great cause of failure in this operation is the difficulty of getting the sutures to hold. With practice one can make sure of getting a firm hold of the tough fibrous tissue at the margin of the cornea without putting in the needle dangerously deep, so that this end of the suture does not tear out. The difficulty is with the end which is attached to the muscle. After trying extensively many different advancement operations I found that two gave better results than the others. In one, three or four sutures are simply passed through the tough circumcorneal tissue and through the muscle. If these sutures hold for a week the results are permanent. But the muscle end very often cuts its way through in three or four days. In the other operation the sutures are knotted on the muscle either in one or two parts. This nearly always gives good *immediate* results, but a very large proportion of the cases relapse within six months. I think that this is probably due to the fact that the muscle atrophies in front of the ligatures, and so is only attached to the globe by its lateral expansions.

The author's advancement operation.—I devised the following operation with the object of combining the advantages and avoiding the disadvantages of the two operations to which I have just referred (Fig. 2). The ordinary advancement instruments are required: a speculum, a pair of straight blunt-pointed scissors, a fixation forceps, Prince's advancement forceps, a needle-holder, very sharp curved needles, and thread, and, if a tenotomy is to be done at the same time, a squint-hook also. For the suture material I use black silk prepared as follows. After sterilising and drying, the silk is steeped for a few minutes in very hot melted paraffin wax to which a little vaseline had been added. The thread is then drawn tightly through a sterilised rag and is kept in bottles ready for use. The black silk is easily seen. The waxing makes it practically non-absorbent and stronger and more compact, so that it can be more easily threaded. It gives the silk just sufficient stiffness to prevent its tying itself into undesired knots during the operation, without making it harsh.

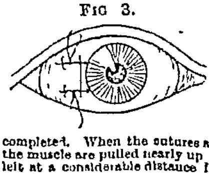
The patient may be anæsthetised or, for older patients, cocaine may be used. A drop of suprarenal extract, used from time to time, facilitates the operation by making it bloodless. The surgeon, standing behind the patient's head, seizes the conjunctiva with the fixation forceps about a quarter of an inch from the margin of the cornea and below the level of the tendon. A small opening is then made in the conjunctiva with the scissors. The sub-conjunctival tissue and capsule of Tenon are then seized with the forceps and an opening is snipped through them with the scissors. The female blade of a Prince's advancement forceps is introduced through the opening and passed beneath the tendon, the male blade being superficial to the conjunctiva The forceps is then closed. The conjunctiva, the capsule of Tenon, and the tendon are thus firmly clamped together by the forceps while their relations are yet undisturbed. The conjunctiva and the capsule are then divided vertically for nearly half an inch close to the margin of the cornea The tendon is divided at its insertion One of the needles is then passed inwards at A, through the conjunctiva, the capsule, and the muscle, and is brought through to the under side of the muscle It is then passed again through the muscle, the capsule, and the conjunctiva and brought out at B. The bight of the thread thus incloses about the lower fourth of the width of the muscle, together with its tendinous expansions and capsule and conjunctiva. The other needle is similarly entered at A′ and brought out at B′, the bight of the thread inclosing the upper fourth of the width of the muscle, &c The ends of the thread from A′ and B′ are then knotted tightly at O. The end bearing the needle is then entered at D and is passed through the conjunctiva, the capsule, and the muscle, and then carried beneath the lower blade of the Prince's forceps nearly to the corneal margin. The needle is here passed through the tough circumcorneal fibrous tissue and brought out at G The two ends of the thread are then temporarily tied loosely with a single hitch at H The first suture is then similarly dealt with The anterior part of the muscle and the overlying capsule and conjunctiva are then removed by cutting them through with scissors, beyond where they are grasped by the Prince's forceps. The gap is then closed by tightening and securely tying each suture at H, H, so that the anterior end of the muscle is brought nearly up to the corneal margin at G, G. Any desired degree of rotation of the eyeball may be obtained, according to the position of A, B, C A firm, unyielding hold is got for the sutures at each end. The anatomical relations of the muscle are disturbed as little as possible, and its blood-supply is not interfered with The immediate effect seen under cocaine or after recovery from a general anæsthetic is the final result. So far, I have had no relapse with this operation

FIG 2



Diagrammatic view of the advancement operation

FIG 3.



The operation completed. When the sutures are finally tied the knots on the muscle are pulled nearly up to the corneal margin, not left at a considerable distance from it as the diagram incorrectly represents.

These methods of treating a case of convergent squint may seem somewhat tedious. But surely no one will grudge the time and trouble if he realises that the whole future career of the patient often depends upon the skill and care of the surgeon who first sees the case.

CASE 3—In November, 1899, a brother and sister were brought to me suffering from convergent squint—the eldest child, a boy, aged eight years, and the fourth child, a girl, aged two years and seven months The boy had begun to squint when he was two years old. He was then taken to a surgeon, who ordered atropine for both eyes for some months At the age of three and a half years the boy was ordered to wear glasses. He has worn glasses ever since When I saw him, at the age of eight years, he had a slight convergent squint in the left eye of seven degrees with his glasses The squint was quite masked by the angle gamma. But the squinting eye had lost all power of fixation and its vision was reduced to the counting of fingers at a distance of four feet This boy will of course be debarred from entering the profession of arms for which he was intended.

CASE 4—The sister of the patient in Case 3 was two years and seven months old when I first saw her She had convergent squint in the left eye of 38 degrees. The fixation of the left eye was wandering and uncertain but was not quite lost After retinoscopy under atropine glasses were ordered. Continuous occlusion of the right eye for 14 days resulted in quite steady central fixation in the left eye A drop of liquor atropinæ was then ordered to be put in the right eye *only* every morning and the shade was discontinued The child immediately learnt the trick of using the (atropised) right eye for distant vision and the (unatropised) left eye for looking at near objects She has used atropine, for the right eye only, for the first fortnight in each month ever since Three months ago I began exercises with the amblyoscope Her fusion faculty was easily and quickly developed to a very potent degree. The angle of the deviation is now 16 degrees and the ivory ball test shows that the vision of the deviating eye is at least equal to $\frac{6}{12}$. Operation may or may not be necessary—most probably not. In any case there will be a perfect cure of the squint with the highest grade of binocular vision, and in all probability she will be able later to dispense with her glasses except for near work

It is not quite certain that the boy would have fared as well as the girl had he received similar treatment soon after the squint showed itself, though it is extremely probable. But this is certain—if the girl had had no more done for her than the boy she would have been now in the same deplorable condition

The family practitioner is in most cases consulted about squint, or he notices it himself, soon after its first appearance. The responsibility then rests with him to see that the child receives efficient treatment *early*. Unless he has sufficient time and knowledge of ophthalmology to treat the case himself he should see that the child is taken to an ophthalmic surgeon or hospital without delay. If some delay should be unavoidable he can at least order a drop of atropine to be put in the fixing eye only every morning.

Harley-street, W.

UNIVERSITY OF BIRMINGHAM: APPOINTMENT OF EXTERNAL EXAMINERS—At a meeting of the University Council on May 1st, the Vice Chancellor (Alderman C G. Beale, M A) presiding, the following appointments of examiners were made among others:—Physics, Professor J J. Thomson, F R S, Chemistry, Professor H. McLeod, F R S; Zoology, Dr S F Harmer, F R S.; Botany, Professor Reynolds Green, F R S; Philosophy, Mr. J. F. Stout; Anatomy, Professor Alexander Macalister, F R S.; Physiology, Professor John Grey McKendrick, F.R S.; Pathology, Professor G. Sims Woodhead, F R S Edin; Medicine, Dr. Donald MacAlister; Surgery, Mr. W. H. A Jacobson; Midwifery and Gynæcology, Dr. Berry Hart; Forensic Medicine and Toxicology, Dr. A Pearson Luff; Public Health, Dr. George Reid; Dental Subjects, Mr. Charles S. Tomes, F R S; Clinical Medicine, Dr. T. Stacey Wilson; and Clinical Surgery, Mr W. F. Haslam.

DISEASES OF THE MAXILLARY ANTRUM, THEIR SYMPTOMS, CAUSES, AND TREATMENT.[1]

BY ADOLPH BRONNER, M.D., M.R.C.S.,
SENIOR SURGEON TO BRADFORD EYE AND EAR HOSPITAL; LARYNGOLOGIST TO BRADFORD ROYAL INFIRMARY.

THE subject of my paper to-night—diseases of the maxillary antrum—is one in which I have for the last 15 years had a good deal of experience; and in numerous cases I have had the pleasure of working with members of your profession.

The maxillary antrum or sinus, or "antrum of Highmore," is of pyramidal shape and is situated above the molar teeth and below the orbit. In the fœtus the antrum is very small—in the fourth fœtal month it is only one third of a millimetre in size, in the fifth month it is about five millimetres—and it is round in shape. It lies high up above the unerupted teeth. It remains small up to the fifth or the sixth year, when it rapidly increases in size and alters its shape. In the seventh year it is fairly large, of pyramidal shape, and it lies lower down, just above the roots of the molar teeth. These facts are of great importance from a surgical point of view. Up to the sixth or the seventh year the antrum should be opened through the middle nasal meatus and not through the alveolus. The size and position of the antrum in adults, however, vary very much, even in the same individual. They depend on the amount of bone-absorption in the upper jaw and on the size and shape of the nares. If the nasal cavity is large it naturally encroaches on the antrum. In opening up the antrum we have to take all these facts into consideration, and the operation is not so easy and simple as some people seem to think.

Of the walls of the antrum only two, the inner and the lower, concern us this evening. The inner wall is, of course, the outer wall of the nasal cavity. It is bony, with the exception of one part which consists only of mucous membrane. This lies between the middle and lower turbinated bones. In it are situated the normal openings—the maxillary and the so-called accessory ostium. The former lies further forward and higher than the latter. The lower part of the antrum is contained in the alveolar process. It varies very much in size and position. Generally it extends down to the roots of the molars. Often these are covered only by a very thin layer of bone which frequently is pressed upwards by the tooth and in part projects into the antrum. Often there is a *thick* layer of bone between the teeth and the antrum. If the lower portion of the antrum is broad, we call the parts the "alveolar sinus" and the "palatine sinus" respectively. The lining mucous membrane of the antrum is directly continuous with that of the nose through the maxillary and accessory ostia.

The commonest disease of the antrum is the so-called empyema or purulent catarrh of the lining mucous membrane. Cases of acute empyema were very rarely met with before the recent epidemics of influenza. Since then they have been fairly common. Sometimes they follow scarlet fever. The symptoms are generally well marked—severe pain, neuralgic or throbbing, which increases on pressure or rapid movements of the head. The pain is generally intermittent and depends greatly on the amount of fluid in the antrum. When this escapes through the ostia the pain subsides, but returns again as soon as the serum or pus accumulates. The teeth are often painful, especially on pressure. This gives rise to the erroneous idea that the teeth are diseased and are the cause of the empyema There is generally rise of temperature. The cases mostly heal spontaneously without operative interference. In the two cases which I have seen, however, I opened up the antrum at once and the distressing symptoms soon disappeared.

Chronic empyema of the antrum is extremely common. It is generally not diagnosed. In fact, in many cases the patient does not complain of any symptoms and the empyema is only discovered at the post-mortem examination. The old-fashioned idea (which I am sorry to say is still very prevalent) that empyema of the antrum gives rise to most distressing symptoms, such as distension of the cheek, severe pain, &c., is absolutely wrong. These cases are rare and they are generally the result of a long-standing and neglected empyema. Of course, cases of syphilitic or tuberculous disease of the antrum do give rise to grave symptoms. As a matter of fact the subjective symptoms are very slight. There is often recurrent infra-orbital neuralgia or a dull aching pain in the cheek, accompanied by swelling of the soft tissues. More frequently there is pain over the nose and orbit. This fact is of great practical importance, as disease of the frontal sinus is often wrongly diagnosed. I know of several cases of empyema of the antrum which, because of the orbital pain, were diagnosed as, and treated for, frontal sinusitis. The most common complaints are neuralgia, a blocking of one nostril, unilateral "cold in the head," a nasal discharge, or a bad smell in the nose. Often only one of these symptoms is present. I have already published[2] three cases of empyema of the antrum, in which a bad smell in the nose was the only symptom complained of. The discharge or the smell is more marked when the patient bends the head forward or on one side. If the accessory ostium is large and open the pus flows to the back of the nose into the throat and the patient complains of a bad taste and a dry throat. Some months ago I saw a medical man who suffered from recurrent unilateral tonsillitis and a bad smell in the nose. There was empyema of the antrum. When this was cured there was no return of the tonsillitis or of the bad smell. Often the constant irritation caused by the pus gives rise to polypi or enlargement of the middle turbinated bone. In all cases of unilateral discharge from the nose the antrum should be explored. Of course, the pus may also come from one or more of the other accessory sinuses, from the ethmoidal and sphenoidal cells or the frontal sinus. In cases of ozæna the antrum is often affected, and it is obviously impossible to cure the ozæna until the antrum has been treated. These are the cases of so called incurable ozæna. The objective symptoms are also often very indefinite. Generally, there are hypertrophy or polypi of the mucous membrane of the middle nasal meatus or there is a small crust of dried muco-pus under the middle turbinated bone. When this is removed a few drops of pus escape. Often there is no crust, only pus which sometimes pulsates. This is an almost certain sign of empyema of the antrum. Of course when the antrum is empty, or the ostia are blocked, no pus can escape. In the old and some of the new text-books distension of the cheek is given as a sign of empyema of the antrum. This is absolutely wrong. These are cases of cysts and not of empyema The inner nasal wall of the antrum sometimes bulges inwards when there is much pus and the ostia are blocked. Rarely there is distension downwards towards the hard palate. I have only seen three or four of these cases. The only way of making a reliable diagnosis is to puncture and to wash out the antrum. This is generally done with a Lichtwitz trocar. The opening is made in the lower meatus, about three centimetres behind the anterior part of the lower turbinated bone, and just under it. If made too low down the puncture is difficult and painful, as the bone is often very thick there. If cocaine or eucaine is applied a few minutes before operating, there is little or no pain. Warm sterilised water is injected through the trocar. It escapes through one of the ostia. If it is clear, of course there can be no empyema. If the ostia are blocked you must make a counter-opening or use a double trocar. As I mentioned above, the antrum is often very small or practically non-existent, and this explains why in some rare cases it cannot be found with the trocar. Out of the many cases which I have punctured with the trocar I have only been unable to find the antrum in four or five. I may add that in all cases of purulent nasal discharge (which are extremely common) and in cases of obstinate ozæna, I always, when possible, syringe out the antrum for diagnostic purposes. It is very difficult, often impossible, to wash out the antrum through the maxillary ostium. It is also dangerous, as there is a possibility of wounding the orbit, as in some cases the orbit lies very near to the middle meatus. Transillumination is often used to find out if the antrum is diseased. A small electric lamp is placed in the mouth, the lips are closed, and the room is darkened. The cheek and lower orbit, and often the pupil, appear of a rosy red colour. If one antrum is diseased, that side is darker than the other. We know, however, that the size of the antrum and the thickness of bone, even in the same person, vary very mu indeed, so that transillumination is of no very great val Sometimes by using Politzer's bag there is an escape of p from the antrum. But this does not happen in all cas The so-called "hydrops" of the antrum, as described in old text-books, does not exist These are cases of cysts. Polypi in the antrum are fairly common, as proved by post-mortem examination, but they do not always give rise to subjective symptoms Sometimes, however, they block the ostia and prevent the passage of serum or pus and of air in and out of the antrum.

---

[1] A paper read before the Leeds section of the Midland Branch of the British Dental Association on March 19th, 1901.

[2] THE LANCET, July 17th, 1897, p. 144.

Now about cysts. These are not very common and they are mostly of dental origin. We know very little about their pathology. I had intended to discuss this matter thoroughly this evening, but I could not get the specimens I had hoped to procure, nor could I find much reliable literature on the subject. There are, roughly speaking, two kinds of dental cysts, those caused by retention of unerupted teeth and those due to inflammatory changes in the root-membrane of an already erupted tooth In the first class the tooth is generally contained in the cyst It is often difficult to diagnose between empyema and a cyst. A large cyst causes distension of the cheek, and on pressure you hear a peculiar crackling noise. If you inject water into the cyst, it does not pass out through the nares, as it would if injected into the antrum.

Tumours of the antrum are frequently met with The most common is carcinoma. The first symptoms are severe pain in the cheek and nasal discharge. You generally find nasal polypi. These bleed freely on removal. If diagnosed early and if the whole of the upper jaw is removed (this is absolutely necessary) the prognosis is fairly good I saw a well-known man of this town some seven years ago. He complained of unilateral nasal obstruction and epistaxis; there was not very much pain On removing numerous polypi, I found a large opening into the antrum which was filled with a red soft growth The upper jaw was removed by Mr. E Ward, of Leeds, and the patient is still alive and occupying an important official position.

The question of causation of empyema of the antrum is still a much disputed point. Formerly it was thought that most cases were due to diseased teeth. This, however, is not the case. Anatomists maintain that the empyema is very rarely of dental and nearly always of nasal origin. Zuckerkandl, the greatest authority on the anatomy of the face, examined 300 cases of empyema of the antrum in the post-mortem room and in only one case could a direct connexion between the teeth and the empyema be found. Of course there may have been, and probably were, several cases in which an existing connexion could not be, or was not, traced at the post-mortem examination. The dental origin can be two-fold—disease of the tooth root (with or without abscess) or alveolar periostitis. We know that often the roots of the premolar or molar teeth practically touch the thin floor of the antrum, in some cases they even project into the cavity. Considering the large number of persons who suffer from diseased teeth it is very remarkable that relatively so few cases of antral disease are met with and that the direct connexion cannot be traced anatomically. We know also that after extraction of molar teeth a probe can often easily be passed into the antrum; and yet disease of the antrum following this operation is very rare.

Empyema of nasal origin can be due either to a direct extension of disease of the mucous membrane of the nares through the maxillary or accessory ostium into the antrum; (for we know that the membrane of the two cavities is directly continuous), or particles of mucus and pus or any foreign body containing micro organisms can be blown into the antrum through the ostia, when the patient blows his nose, and set up inflammation there. In some cases (perhaps a large number) the ostia become blocked by hypertrophied mucous membrane or by a polypus. As can readily be understood this must give rise to disease of the lining membrane of the antrum During the last 15 years I have seen many cases of empyema of the antrum. In every case I have tried to trace the origin of the disease, and only in very few have I been able to find any direct connexion with a diseased tooth or teeth.

The methods recommended for treatment of empyema of the antrum are numerous. The points to aim at are (1) to open the antrum at the lowest possible point, so as to get good drainage of the cavity, and (2) to keep this opening patent till the disease has been cured. Cases of acute empyema generally heal without surgical interference. In

meatus is not low enough to secure proper drainage. The simplest and most effectual method is to make an opening into the antrum through the alveolus. I also always make a counter-opening through the lower meatus The fact that in most cases one or more of the premolar or molar teeth are missing or diseased simplifies the operation. Numerous burrs and drills have been recommended for perforating the alveolar process. As the size and position of the antrum vary very much it is necessary to be very careful, as there is danger of penetrating into the nose or the orbit. The cavity should be washed out. The nature of the discharge often gives us an idea as to the extent and character of the inflammation In many cases the operation can be performed with cocaine or eucaine (beta). I generally apply a little powdered eucaine and cocaine to the parts and then inject about 10 minims of a solution (1 per cent) of eucaine. The latter is less liable to give rise to toxic symptoms than cocaine. The fistula readily closes up and it is in all cases absolutely necessary to keep it open for several weeks or even months, till the diseased mucous membrane of the antrum has been cured. A metal tube or solid plug should be introduced a day or two after the operation. This can be fixed on to the adjoining tooth or teeth; or if the patient wears a plate, attached to this If a tube is used it is generally supplied with a revolving plate or a cap or plug of some kind, to prevent the entrance of food into the antrum. Personally, I do not think that it is always necessary to block the tube. Food does not readily enter in any large quantities, and if it did it would come away when the cavity was washed out Mr W J England, of Cavendish square, London, has kindly sent me a pattern of the tube which he generally uses.

The after treatment is of great importance. In most cases the tube is removed and the treatment stopped much too soon. The cavity should be washed out from two to four times a day with a hot antiseptic solution, as long as there is any discharge; that is, until the water which passes out through the nares is quite clear and contains no pus or mucus. For at least from four to six weeks longer the tube should be kept in position and the cavity syringed out once a day. I always also use insufflations of aristol and boric acid from two to three times a day; at first in very large and then in small quantities. This shortens the treatment very much If at the end of from four to five weeks the secretion of pus has not ceased, there will probably be a polypus in the antrum or some disease of the bone. The opening should then be enlarged so as to admit a finger and the cavity should be carefully explored. If the alveolus is not large enough it becomes necessary to make a large opening through the canine fossa An incision is made through the mucous membrane, this is deflected and a large piece of bone is removed with the chisel. The cavity is well scraped out with a sharp spoon and plugged for several days with gauze. Many surgeons open up the antrum through the canine fossa in ordinary cases The advantages of this method are that the pus from the antrum does not drain direct into the mouth, that there is no danger of food entering through the opening, and that the tube is easily kept in position by the lip Personally, I prefer the alveolar method and only open up through the canine fossa when the teeth are all sound or when I think that there is a polypus or some carious bone in the antrum When there is a cyst this should be extensively opened, the lining membrane scraped, and the cavity allowed to heal up by granulation. In large cysts we often have to excise part of the bony wall. It is remarkable how quickly the parts regain their normal shape and how little deformity remains.

Bradford.

NOTIFICATION OF MEASLES.—The Sanitary Committee of the Exeter City Council have recently inquired into the advisability of the notification of measles and have taken the opinion of the five district medical officers upon the subject. At the meeting of the city council on April 27th the committee reported that acting on the advice of four out of the five medical officers they had decided to recommend that measles be not included in the list of notifiable diseases The recommendation was adopted by the council.

MENTAL FATIGUE IN SCHOOL-CHILDREN.

BY DR. JOSEPH BELLEI,
OF THE BOARD OF HEALTH, BOLOGNA, ITALY.

ONE of the most important problems connected with the general question of the education of the young is the determination of the relations existing between the daily instruction given in the schools and the fatigue that is thereby caused, so that a way may be found of imparting knowledge without danger to the physical and mental health of the children.

As one of the medical officers attached to the public schools of Bologna I have endeavoured to study the phenomena of mental fatigue in several children who were under my care, so that I might perhaps contribute in some degree to the solution of a problem which is in itself of great importance, and, moreover, has not received in Italy the attention which it deserves. Many are the methods used to determine the degree of mental fatigue. They can be divided into (1) those which attain their end in an indirect manner—viz., through experiments on the sensibility of the skin, on the amount of muscular fatigue, &c.; and (2) those which draw their conclusions from the direct examination of the mental work done by the children at a given moment. These last can be classified as follows:—

1. *The dictation method.*—The children at a given moment are set to write from dictation an article of a definite length, the character of which is well within the range of their mental capacity. The number and nature of the mistakes that are made are taken as the index of the quality of the work and therefore of the mental fatigue at the moment.

2. *The method of memory.*—The teacher repeats to the children with a definite rapidity a series of numbers which they have to write down in the same order. One can judge of the mental fatigue from the greater or less number of figures that the children have taken down in order.

3 *The arithmetical method.*—This method consists in giving the children exercises in addition, multiplication, &c., or easy problems of algebra to do at a given time.

4 *The method of combination*—Ebbinghaus has proposed a special method of studying the mental capacity of children. He believes that it can be adapted also for the determination of mental fatigue, but I think that for this latter purpose Ebbinghaus's method is useless.

I pass over the methods by which mental fatigue is estimated in an indirect manner, because it is impossible to employ them on many persons at the same time. Which is to be preferred among the methods by which mental fatigue is estimated from the quality of the mental work? I think that in order to form an exact idea of school-children's mental fatigue at a given moment it will be sufficient to estimate the attention that they can give to a subject at that moment, because this will be diminished in proportion as the mental fatigue increases. With the methods of memory, arithmetic, and combination the children are subjected to a mental tension which must certainly influence the experiment. In these cases, perhaps, the children may either be able to accomplish more than their minds are properly capable of at that moment, or, on the other hand, being preoccupied with the task that has been set them, by the effect of a natural inhibition, they cannot do as much as they might have done if they had not had such a preoccupation. Writing from dictation is, however, a task adapted to all the children in a class, and it does not preoccupy them at all because they are in the habit of doing it. It is done only with the help of attention and without the necessity of bringing superior faculties of mind into play. Therefore, according to the greater or less number of mistakes that are found in the written matter, one can infer with certainty the amount of attention that the children are able to give to a subject at a particular time and thus naturally the degree of mental fatigue.

I accordingly chose this last method for use in my study of mental fatigue. I examined 320 boys of the average age of 11 years four months and a half, and 140 girls of the average age of 11 years and eight months. These 460 children were divided into nine different classes, in which, although the plan of instruction during the year was the same, the teacher had certainly an individual influence. For this reason I thought at once that my investigations would not be made under uniform conditions, but I nevertheless tried the experiment. The results that I obtained in the nine classes for the most part presented similar features, and are therefore, I think, of considerable importance. With the help of an intelligent teacher I arranged six passages for dictation, almost equal in respect of the difficulties that they presented and in the number of words. I used each of these six dictations for an experiment. The first was given to the children at 9 A.M.—i.e., at the commencement of school hours; the second at 10 A.M., at the end of the first lesson; the third at 11 A.M., precisely at the end of the second lesson; the fourth at 11 45 A.M, immediately before the luncheon hour and midday rest; the fifth at 12 45 P.M., when school was resumed for the afternoon; and lastly, the sixth at 2 P.M., during the last half-hour of lessons. Each of these dictations was given in the classes in which I experimented on a day selected at random, so that the teacher might not have any influence on the experiment. I took accurate note of the subjects that had occupied the children's minds from the beginning of the lessons till the moment in which they were set to write from dictation.

I collected the material in two months, about 2760 dictations. Each of the experiments was conducted in the following manner. When the children were ready the first sentence was dictated, sometimes by me, but oftener by the teacher in my presence, and repeated by one of the children who usually had this duty. Every one of the children wrote it at once, and that done each put down his pen and raised his head, so that he could not look again at what he had written. The second sentence was dictated when all had finished writing the first. This method was continued until the end, and as soon as all the sentences were dictated the papers on which the children had written were collected at once. The children were told that they were expected to do their dictation *well* and not to hurry themselves. Each dictation took from 20 to 25 minutes For the correction and counting of the mistakes I followed Friedrich's method, reckoning separately mistakes and auto-corrections. I considered as mistakes also the unwritten words and parts of sentences left out and the extra words, as auto-corrections the right letters written over the wrong ones. I counted also the children who did not make any mistakes and divided the others into groups corresponding to the number of mistakes that they had made. The results which I obtained in my trials I have collected in several tables that give an exact idea of the quality of the work done by the children at the end of each hour of lessons. In my treatise on "Mental Fatigue in Children" I have inserted many tables to render comparison easier and the numerous results that I obtained more intelligible, but in the present short article I have given only one table which summarises the results obtained in all the classes as if they were only one, in which there were 460 children of the average age of 11 years and six months.

GENERAL SUMMARY OF RESULTS

Trial.	Hours	Average age	Written Letters	Mistakes		Differences	Auto corrections		Children who did not make mistakes.		Average of the mistakes for every child.	Below the average	
				Total	Per cent		Total.	Per cent.	Total.	Per cent		Total.	Per cent.
1	9¼	11 years and 6 months	117,802	1399	1·187		126	0·106	31	7·69	3·47	222	55·08
2	10		129,808	1205	0·928	−0·259	182	0·140	59	14·04	2·86	232	55·23
3	11		125,030	1165	0·931	+0·003	163	0·130	61	14·28	2·72	245	57·37
4	11¾		127,500	1227	0·962	+0·031	127	0·099	72	16·90	2·88	248	58·16
6	12½		123,900	748	0·603	−0·359	95	0·076	119	29·31	1·84	233	57·38
6	14½		126,793	1614	1·272	+0·669	170	0·134	40	9·63	3·88	256	61·63

From this table it appears (1) that the best result was obtained at 12 30 P M —i e , after the mid day rest; (2) that the worst result was obtained at the end of the afternoon lessons; (3) that the greatest difference in the results between two consecutive experiments occurs on comparing the fifth and sixth trials; (4) that after the work done at the end of the afternoon lessons the next worst in point of quality was that which was done at 9 30 A M —i e , at the time when the children arrived in school in the morning; (5) that comparing the work done after an hour's lesson with that which was done when the children arrived in school in the morning, the first was better than the second; and (6) that the differences between the results of the second, third, and fourth trials were so small that they might be considered as equal When I had finished these experiments I made others with only one dictation, which I gave at different hours in different classes or even in the same class. In the first case the instruction of different teachers certainly had an influence upon the percentage of the mistakes and therefore upon the comparison of the results, and in the second case the same dictation given under the same rules, though on different days, ended by annoying the children, who after some trials worked without any attention I always had the best result at 12 30 P M —i e , immediately after the rest between the morning and the afternoon lessons The worst result I had constantly at 2 30 P M —i e , at the end of the afternoon lessons The proofs that I obtained in these experiments in the morning were very unequal, but, for the reasons that I have given, they did not merit great consideration These experiments, then, confirmed to a great extent the results obtained before

The conclusions I arrived at were the following: (1) I could not draw any conclusion as to the influence of the single subjects of teaching; (2) the first hour of lessons is a useful mental exercise, because the children are able during that time to overcome the state of inattention in which they were at the time of coming to school; (3) the morning lessons do not produce great mental fatigue; (4) the midday rest is of great use to the children because it does not destroy the good effects of the mental exercise in the morning and enables them to do work of better quality than that which they produce after a long rest, as one observes at the beginning of the morning lessons; and (5) though immediately after the midday rest the children are in the best conditions of mind, an hour or so of application in the afternoon is sufficient to produce such a mental fatigue as to lead at the end of the afternoon lesson to the worst work of the day Therefore, if the morning application does not fatigue, it consumes the mental energy of the children in such a manner that they cannot undertake light work in the afternoon without falling into great mental fatigue

Bologna, Italy.

THREE CASES OF MYXŒDEMA OF VARIED TYPE.

By WILLIAM WYLLYS, M R C S Eng , L R C P. Lond , L S A

THE following three cases of myxœdema which have come under my care in general practice during the past seven years were of so varied a character and ran such different courses that a description of them may prove of interest and possibly be of some assistance to the diagnostician Two of the cases in particular demonstrate the difficulty of early diagnosis from the insidious nature of the onset of this disease

CASE 1 —A woman, about 60 years of age, was first seen by my senior partner one night in response to a message on account of very, obstinate constipation combined with a curious alteration in her manner and low state which caused her relatives some alarm I saw her three days later when I made this note: "Pulse weak and slow, eyes puffy, body swollen, headaches, bowels not open, hands stated to feel numb, mind deranged; urine to be tested." I had not made up my mind what was the matter with my patient, though I was partly on the track My father, on seeing her the next day, made this note "Has a myxœdematous look, with slow speech, thickened features, &c ," with which I entirely agreed, and a correct diagnosis having been attained I started by giving the patient five grain tablets of thyroidin three times a day. By this time, however, she had become so unmanageable and suffered from so many delusions and hallucinations that very few tablets were taken. Her power of deglutition, too, was so much involved that she could and would take but very little nourishment Respiration, except during paroxysms of mental excitement, was slow and shallow She became very suspicious at times and at others was extremely dull On one occasion during a bout of mental instability she nailed up all the doors in her house and then stood still in the middle of her room for one and a half hours without speaking, she then broke into a hymn and finally she fell down, though she did not become unconscious Her skin was generally thickened, harsh, and dry and in places it was parchment-like (her hands especially so) and of a deep red tint She was troubled much with flatulence and intractable constipation. There was marked proliferation of the skin about the nose which desquamated freely Six weeks from being first seen she was so wildly maniacal that her removal to the lunatic ward of the workhouse infirmary had to be effected and there she died a few weeks later with acute mania Her family history was of moment, as both her father and her brother had died from "dropsy" and, according to her relatives, were affected much like my patient Her eldest daughter, too, died from "dropsy and mortification," aged 20 years

CASE 2 —A woman, aged 45 years, sent for me one morning at two o'clock on account of an attack of diarrhœa with sickness, which had presumably been caused by her having eaten on the day before sausages, shrimps, and plaice She was down for a holiday at Yarmouth, which may account for this curious dietary. Her pulse was 78 and her temperature was 97° F , her hands and feet were very cold An effervescing mixture with pills of calomel and opium (one quarter of a grain of each) were given and the intestinal symptoms abated, though her exhausted condition caused me some uneasiness Her apathy and disinclination to get up when her condition improved aroused my suspicions, and with a history of "a sensation of closing up in her throat after talking" I thought neurosis was the fault For the next few days her temperature was 98° in the morning and the evening; her pulse ranged between 60 and 68 and was of low tension and volume She complained that for the previous 12 months she had felt easily tired and languid and had repeatedly suffered from aching pains in the legs, and that the skin of her face and hands had assumed a yellow tint She also said that her face had become puffy and that her teeth and her hair had fallen out and also that the skin on her legs had become rough She had suffered from menorrhagia, leucorrhœa, and chronic diarrhœa for some months Her speech was of a measured type and her movements were slow With these symptoms and signs I deemed a diagnosis of myxœdema to be logical, and accordingly I prescribed five grain tabloids of thyroidin, one to be taken every night and morning, with the effect of which she was delighted, stating "that they made her feel much better," and she asked me to write to her usual medical attendant describing them and stating what I considered her complaint to be, so that she could continue with the treatment on her return home I regret to say that the urine was not examined A few days later she had to go home though she still felt very weak, and I soon afterwards received a letter from her medical adviser saying that he quite concurred in the view which I took of the case and that he should proceed with the thyroid treatment The insidious nature of the disease and the very slight alteration in the state of the patient from month to month no doubt made a correct conception of her malady very difficult, especially as I believe that she had never been acutely ill enough to be confined to bed so that a thorough overhaul of her condition might be made; but viewed as it were with fresh eyes and from a new standpoint, after a depressing attack which accentuated her mental apathy and nervo-muscular debility, a diagnosis of her complaint was not so difficult a matter

CASE 3 —A married woman, aged 52 years, the mother of many children, with a history of having been "an ailing woman for two years," was first visited professionally on account of an attack of sickness accompanied by loss of appetite and insomnia Her aspect was "renal," her feet were œdematous, and a faint systolic murmur could be heard at the base of the heart. The urine was acid, and its specific gravity was 1030 It contained no albumin, and urates were present Although the patient was resting in bed on a low diet vomiting persisted, in a few days marked stupor became evident, and the case for a time looked like one of cerebral origin. The urine was again tested with negative results. The patient became very weak, her breath was short, and she was apathetic. Her breath was very foul and her tongue was thickly furred, flabby, and large; the lips were full and livid, the face was decidedly puffy, and the bowels were very costive. Increasing signs of mental failure, loss of memory, stupor and giddiness with melancholia, and falling out of her hair, associated with a bruit about the aorta, pointed to syphilis, and iodide of potassium was tried but without avail. The probability of myxœdema being the *fons et origo mali* next suggested itself and a five-grain tabloid of thyroidin, to be taken twice daily, was prescribed with the result that in three days an obvious change for the better had set in, the patient saying, to use her own words, that "she did not feel so dull." She also began to sleep better, was more inclined for conversation, and she looked decidedly better. The thyroid gland was felt for but could not be made out. The patient for the first few weeks was kept in bed and the dose of thyroidin was gradually increased from two to four tabloids a day and saline aperients were given. This line of treatment was persisted in for six months, the patient, though inclined to shortness of breath and aching of the legs, eventually being able to walk up to my house in very fair health and spirits to see me. Her pulse had become of good volume and tension, the œdema of the feet had disappeared, her face and lips were but very little swollen, and having so far recovered she left off the treatment. A year has passed by and I have just seen her again. Although she is able to perform her household duties, if she is not hurried, she is obviously in need of thyroid tablets, as she has marked dyspnœa, swelling of the ankles, puffiness of the face, and disinclination for much mental effort. The instructive points in this case from a diagnostic standpoint are, I consider, (1) its resemblance to Bright's disease; (2) symptoms which seemed to point to brain disease; and (3) signs of atheroma of the aorta; in reality, however, myxœdema was the cause of her illness. The sloppiness of the conjunctivæ referred to by Chapman[1] as due to the presence of mucin, and diagnostic of myxœdema when no albumin is found in the urine, was well marked when I saw my patient last.

Great Yarmouth.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

◆

NOTE ON A QUIET EFFUSION INTO THE KNEE-JOINTS.

By J. LIONEL STRETTON, L.R.C.P. LOND., M.R.C.S. ENG.,
SENIOR SURGEON TO THE KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.

IN the report of a very interesting lecture on the above subject by Mr. William H. Bennett contained in THE LANCET of Feb. 23rd, p. 527, it is stated that "it is limited to girls and women and is always associated with menstrual irregularity or uterine trouble." As I have met with several cases which appear to be exactly similar to those described save for the fact that they occurred in males, perhaps it may be of interest to mention them. I have only exact notes of the last case which I append.

The patient, a boy, aged 11 years, was brought to the hospital on Oct. 4th complaining of swelling of the right knee which had existed for several weeks. There was no history of injury and his family were all healthy—no tuberculous or syphilitic mischief. He walked into the consulting-room without difficulty and did not complain of pain. On examination the right knee was found to be swollen and contained a considerable amount of fluid. When standing the gravitation of the fluid to the lower anterior part of the joint was well marked. On comparing it with the other knee effusion was found in that also but not so much in amount. The circumference of the right knee was 13½ inches and that of the left 12 inches. There had been no injury and nothing could be elicited to account for the condition. There was no increase of temperature or other constitutional trouble. He was put to bed and the knees were kept on back splints with lead lotion, &c. He was blistered, treated with Scott's dressings and plaster-of-Paris cases. Internally he was given a course of iodide of potassium, sodium salicylate, and tonics, but all to no avail, as after two months his condition remained unaltered. He was put in plaster-of-Paris cases and allowed to get up and walk about. He went home and when he reported himself a month later the effusion had very much diminished. He was ordered to have his limbs and knees massaged and to leave off the cases. When seen a few days ago, six months since his admission, the effusion had entirely disappeared and he was able to walk about without causing any swelling.

Kidderminster.

NOTES ON TWO SUCCESSFUL CASES OF OVARIOTOMY WITH COMPLICATIONS, ILLUSTRATING THE VALUE OF SALINE FLUSHING.

By E. J. TREVOR JONES, M.D. BRUX., M.R.C.S. ENG., L.R.C.P. LOND.,
SURGEON TO THE ABERDARE COTTAGE HOSPITAL.

CASE 1.—The patient, a married woman, aged 32 years, consulted her medical attendant nine months after marriage because she was alarmed at the rapidly increasing size of her abdomen—a condition which was at first thought to be pregnancy. I saw her in consultation with Mr. F. Finney and an ovarian cyst was diagnosed. She was admitted to the Aberdare Cottage Hospital in June, 1900. On opening the abdomen the cyst was found to be unusually tense and large, with many adhesions. On introducing the trocar the tense cyst ruptured and in spite of careful packing much of the contents escaped into the peritoneal cavity. After emptying the cyst the adhesions, which were unusually numerous in a cyst only seven months old, were ligatured, but the omentum was found to be adherent to the intestine. The adhesions were dissected off and part of the omentum was ligatured and taken away. The abdomen was then thoroughly irrigated with warm saline solution (one and a half drachms of chloride of sodium to the pint of sterilised water). When the fluid had returned clear the abdomen was united with silkworm-gut sutures through *all* the coats. The cavity was left filled with the saline solution and the wound was dressed in the usual way, but without drainage. A slight rise of temperature occurred on the first and second nights, after which the patient made a good recovery.

CASE 2.—The patient, aged 66 years, unmarried, had since the climacteric noticed a gradually increasing tumour of the abdomen which was diagnosed as an ovarian cyst. The operation took place in the patient's home on August 12th, 1899. A three-inch incision was made and the trocar was introduced in the ordinary way. On emptying the cyst by pressure it ruptured and some of the contents escaped into the peritoneal cavity. In this case the adhesions were few and the wall of the cyst seemed to be undergoing degenerative changes. On introducing the hand to ligature the pedicle a moderately-sized tumour was detected which on examination proved to be a uterine fibroid. The abdominal cavity was thoroughly irrigated with the sterilised saline solution and the abdomen was treated as in the previous case, leaving the cavity of the peritoneum filled with the solution. The patient made an uninterrupted recovery and has since enjoyed good health.

I have thought it worth while to put on record my experience of the value of irrigation with saline solution and the retention of the solution in the abdomen. The solution seems to me to act by absorbing any septic matter that may remain in the peritoneal cavity. I also noticed that these two patients suffered very little from thirst after the operation, which fact may be accounted for by the absorption of fluid from the abdomen.

Aberdare.

---

[1] Medical Record, Oct. 21st, 1899.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv, Procemium.

ST. JOHN'S HOSPITAL, LEWISHAM, S.E.

A SUCCESSFUL CASE OF SUPRAPUBIC LITHOTOMY IN A CHILD.

(Under the care of Mr. EDGAR HUNTLEY.)

WE have within the last few years published no small number of cases in which the suprapubic operation for the removal of a vesical calculus has been performed with success, and, indeed, in the hands of a general surgeon the results are as satisfactory as those following any other method. For those who have had special opportunities of performing lithotrity that operation is doubtlessly to be preferred, not merely for the small mortality following its employment, but also for the rapid convalescence which ensues. It may, indeed, be said that the crushing operation is more likely to be followed by a recurrence, but the modern improved methods make it very improbable that any particle of the original calculus will be left behind, and even should it happen that a fresh calculus forms its removal is certainly less troublesome than a second lithotomy.

A boy, aged six years, the seventh child of healthy parents, was taken to the out-patient department of St. John's Hospital, Lewisham, early in December, 1900, when the following history was obtained. Until two years before, although considered delicate, nothing definite seems to have ailed him. He was suckled till he was 11 months old and then he partook of the fare of the parents. About two years ago he had been taken to the Miller Hospital, Greenwich, for painful micturition and inability to pass urine freely. He was there circumcised, the operation resulting in only partial benefit, for he does not seem to have lost either the pain or difficulty in passing urine for any length of time together. These symptoms, however, were not very marked until June, 1900, when he developed measles. Both the pain and difficulty then increased and remained so until his admission to St. John's Hospital on Jan. 1st, 1901. The history obtainable during the months from June to December, 1900, was that the pain and difficulty were not noticed from day to day, the child on occasions going two or three days without any trouble at all, then he would have them return many times in one day, passing small quantities of urine at a time, the pain not occurring at any special period of micturition and no blood ever coming away.

On Jan. 1st, 1901, the patient was admitted under the care of Mr. Lennard Stokes, to whom Mr. Huntley is indebted for permission to publish these notes. The case was handed over to Mr. Huntley during Mr. Stokes's temporary absence. The child was at first allowed to run about and was simply watched to ascertain definitely whether the above symptoms occurred. For 10 days pain on passing urine only happened once, but every night, and three or four times in a night, he wetted the bed in his sleep. On the 11th he was given A.C.E. mixture and his bladder was sounded. A stone was at once struck. A little delay occurred before the operation could take place, as the child developed a cough which had to be got rid of. From then until Feb. 11th there were several attacks of pain on micturition and the bed-wetting occurred nightly. The urine never contained any blood, was of specific gravity 1020–1025, was acid, and only on one occasion contained any albumin

On Feb. 11th the patient was again given A.C.E. mixture and the bladder was washed out with warm boric lotion through a catheter. The lotion all being drawn off, four ounces of boric lotion were gently thrown into the bladder by means of a brass syringe. The catheter (No. 5) was allowed to remain in, an indiarubber band being tied round the penis and the end of the catheter blocked with a wooden match. No rectal bag was used. The abdomen having previously been thoroughly cleansed was given a final wash, and an incision about 2½ inches long was made in the middle line ending immediately above the symphysis pubis. There being a few vessels bleeding these were twisted off and the linea alba was divided to the same extent as the skin incision. After dividing the underlying soft structures and picking up a few veins the bladder wall was reached. Before opening this two long threads of horsehair were passed into the substance of the bladder wall, one towards the upper end of the exposed part and the other at the lower end. These were tied and the long ends being gently pulled forwards brought the bladder well up into the incision. The bladder was now opened with the knife between the two threads. As soon as some of the lotion had escaped, a pair of ordinary dressing forceps was passed in and the stone was brought to the surface. The stone being too large to come through the incision in the bladder this had to be enlarged upwards before extraction. The match in the catheter was then removed and the urine-stained lotion was allowed to run out. The two horsehair threads were still held up while nine Lembert's sutures of horsehair were passed by a fine curved needle. These were placed very close together and their ends were cut quite short. The long threads were then removed and the bladder was allowed to drop back. After all had been made dry the soft structures were brought together with silk and the skin was sutured with a continuous stitch of horsehair. The wound was dressed with iodoform gauze. The rubber band being removed the catheter was tied in, rubber tubing draining the bladder under the bed.

For two days the patient had rather severe vomiting, but after this he took plenty of milk food. On the third day after the operation urine was noticed to be coming along the sides of the catheter, but this was not removed until the fifth day. After this there was no trouble except for the coming away of one of the abdominal stitches. The patient left the hospital on March 12th, 1901, perfectly well. The size and weight of the stone were as follows: length, 17 millimetres (⅔ inch); breadth, 13 millimetres (½ inch); and weight, 1·5 grammes (23 grains)

ROYAL SOUTHERN HOSPITAL AND STANLEY HOSPITAL, LIVERPOOL.

FOUR CASES IN WHICH THE MURPHY BUTTON WAS USED—IN THREE SUCCESSFULLY.

(Under the care of Mr. G. P. NEWBOLT.)

IN the first of the following four cases an irreducible intussusception had to be dealt with. Resection of the irreducible portion is probably the best treatment if the anastomosis can be effected quickly, though the cases in which recovery follows in children are very few indeed as the increased shock of the resection is generally fatal. Of the four other methods of treatment which are possible for this condition[1] it cannot be said that any other offers a better chance of recovery, though the establishment of an artificial anus above the invagination is very simple. The death in Mr. Newbolt's case cannot be attributed to Murphy's button. The success of the button in the three other cases is a proof that in suitable cases and with the exercise of care very satisfactory results may be obtained with it The Lembert stitches in addition are not usually necessary, but if time be available their application does no harm. The great bulk of the button is decidedly an argument against its use for intestinal anastomosis in femoral hernia where the bowel has to be returned through a small opening

CASE 1.—A boy, aged four years, was admitted into the Stanley Hospital, Liverpool, under the care of Mr. Newbolt, on Jan. 7th, 1898, suffering from an intussusception. He had been ill for two weeks and was very much collapsed; his pulse was 110, his abdomen was distended, and he was under the influence of opium. The intussusceptum could be felt both per rectum and through the abdominal wall. He had vomited for several days and had passed blood and mucus per anum. Mr Newbolt opened the abdomen in the middle line, but was unable to get at the tumour without turning out some of the distended intestines. Being unable to reduce the last portion Mr. Newbolt resected the gut and put in a button. He had, however, to open and to evacuate the distended intestines before he could return them into the abdomen. The patient rallied at first from the operation but died 12 hours later. An examination of the resected intestine showed that the approximation was perfectly good, but the button had no trial.

---

[1] G. L. Kerr Pringle Bristol Medico-Chirurgical Journal, December, 1899.

Case 2.—A widow, aged 70 years, was admitted into the Royal Southern Hospital on May 15th, 1900, suffering from a strangulated femoral hernia on the left side. She was an old woman of spare habit and had been taken ill on May 12th with vomiting and pain in the abdomen; no motion and no flatus had been passed for three days. To her knowledge she had had no rupture before, but she had been working hard previously. On examination there was a tense globular swelling, both tender and painful, in the left femoral region. The abdomen was slightly distended. The pulse was 94, small and irregular, the respirations were 24, and there was a trace of albumin in the urine. Altogether the case did not look a very favourable one. Mr. Newbolt cut down on the swelling and on opening the sac exposed a piece of black, dull-looking, and œdematous gut. The stricture which was very tight was next divided and the bowel was drawn down until a healthy part was exposed. The wound being packed off with gauze an assistant held the bowel on each side of the gangrenous portion with his fingers whilst Mr. Newbolt removed the damaged piece of gut; there was very little bleeding from the divided parts, as hardly any mesentery was removed. The button was now inserted in the usual way and the two ends of intestine were brought together. Some Lembert's sutures were passed after drawing together the ends of the bowel so as to take tension off the button. After irrigating the parts the bowel was returned into the abdomen, but before doing this the ring had to be enlarged. The sac was next removed, the stump was tied up to Poupart's ligament, and the wound was closed. The after-progress of the case was quite satisfactory. The patient was kept on water, brandy, and beef-tea for a week; her bowels acted on the seventh day after an enema; and the button was passed on the eighteenth day. There was slight suppuration in the external wound. The patient went home seven weeks after her admission and is at present working and looking after five lodgers.

Case 3.—A man, aged 49 years, a cotton porter, was admitted into the Royal Southern Hospital under the care of Dr. William Williams. The patient had been ill for about eight months before admission and complained of constant vomiting, of wasting, and of pain in the abdomen. He was a spare-looking man and was much wasted. There were large veins over the abdomen and a doubtful mass could be felt in the region of the pylorus. On May 22nd, 1900, the patient being under chloroform, Mr. Newbolt opened the abdomen in the middle line midway between the ensiform cartilage and the umbilicus. The stomach presented and the pylorus was seen to be involved in a large mass about three inches long. The glands were enlarged both in front and behind the growth. The stomach was pulled partly out of the wound and avoiding the colon a piece of jejunum was brought up to the stomach and held in position. An incision having been made into the stomach one half of the button was inserted and a suture was run around it; a similar proceeding was carried out with the intestine, the two halves of the button were brought together, and a few sutures were inserted to make all secure. The stomach and intestines were then returned to the abdomen and the wound was closed. An inch button was used. The patient made an excellent recovery and never vomited after the operation. In a short time he was able to take solid food but he could not digest potatoes or meat without discomfort. He, however, put on flesh and though he had some lumbar pain and flatulence at first he eventually became very comfortable and considered himself well. The button was never seen and it was thought that it had not been passed. He died some seven months after the operation, but simply from the progressive disease. The anastomosis relieved his vomiting and enabled him to take food until shortly before his death.

Case 4.—A stableman, aged 41 years, was admitted into the Royal Southern Hospital on Sept. 18th, 1900, suffering from a strangulated femoral hernia on the left side. He had had a lump in the left groin for six years and this had gradually increased in size, but was easily reducible until two months before when it came down and was only reduced with the greatest difficulty. At 10 A.M. on the morning of admission whilst working in the stable the lump came down bigger than ever and he began to vomit. On examination at 4 P.M. there was a hard tense swelling of the size of an egg in the left femoral region and the patient was vomiting brown fluid, not stercoraceous. Mr. Newbolt cut down and opened a sac containing a large mass of doubtful-looking omentum and a piece of small intestine, the stricture was divided, the omentum was drawn down and removed, and the damaged portion of gut was then examined. It was shiny but very black and did not bleed when incised superficially. In spite of the stricture being freely divided there was no evidence of any circulation going on in the damaged gut. Mr. Newbolt therefore excised it as in Case 2, with the exception that he removed a V-shaped piece of mesentery and for his trouble got a good deal of bleeding from the cut edges. The button was put in, the gut being held by the fingers of an assistant, and no clamps were used. The opening into the abdomen again had to be enlarged before the gut and button could be returned. The sac was removed and the wound was closed as in the other case. The patient made a perfect recovery; he passed flatus on the next day and his bowels acted on the eighth day after an enema. On the twenty-third day after an aperient he experienced pain in the rectum and on examination the button was detected, of which after a glycerine enema he was safely delivered on the twenty-fourth day after operation. There was slight suppuration also in the external wound as in the other case. The patient remains quite well.

Remarks by Mr. Newbolt.—During the last three years I have used the Murphy button in four cases. In three of these the result was all that could be desired, while in the fourth case the patient died so soon after the operation that the button had no trial. So far, therefore, my limited experience is in favour of the button, for these cases comprise the only instances in which I have used the appliance. In Case 1 and Case 2, in which I was anxious to get my patients off the table, I was able to operate fairly quickly by means of it. In each instance I used Lembert's sutures over the button, though this is not held to be necessary, but it only takes a few minutes and by so doing a good deal of strain is taken off that portion of the intestine which is gripped by the button and there can hardly be a leakage. I believe that the fingers of an assistant are far better than any clamp if available. I think that damage is done by clamps. In both cases of hernia I had to enlarge the ring pretty freely in order to reduce the gut containing the button; this is a drawback, as it weakens the parts afterwards. I do not think it is likely that any patient will get rid of the button without knowing it. There was a good deal of discomfort and pain in both of my cases in which it passed. In Case 3 I presume that the button fell back into the stomach, though an x-ray photograph did not show it. In the Transactions of the Clinical Society for 1900 Mr. J. Hutchinson, jun., tabulates cases of Gangrenous Intestine in Hernia treated by Enterectomy with Murphy's button, and quotes 14 cases with one recovery, but this does not give, I think, anything like the ordinary percentage of recoveries. Taking the Royal Southern Hospital alone there have been five enterectomies done with the button, and of these four recovered—i.e., the two which I publish and two by the late Dr. H. G. Rawdon.[2] The notes of these four cases were read before the Liverpool Medical Institution.

---

[2] Brit. Med. Jour., vol. ii., 1898, p. 1320.

The Medical Golf Tournament.—The medical golf tournament bids fair to become an annual institution. The tournament for 1901 will be played on June 6th on the links of the Mid-Surrey Club, Richmond, which have been lent for that day by the club. Competitors will be divided as last year into two classes and there will be a prize for each class. Play will be 18 holes *v.* bogey, with a foursome sweepstake in the afternoon. There will be also a prize for the best last nine holes *v.* bogey in each class. Entries, stating lowest handicap and enclosing 5*s.*, to be made on or before June 5th, to the honorary secretary, Mr. Rolf Creasy, Windlesham, Surrey. It is proposed to hold a dinner in London on the same evening if a sufficient number of gentlemen promise to attend; tickets 7*s.* 6*d.*, exclusive of wine.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

[illegible] Meeting.

[illegible] held on May 7th in the I[illegible] Hospital, Mr. W. WATSON C[illegible] he chair.

Mr. W. C. C. PAKES demonstrated the apparatus which he had used for the Collection of the Gases produced by Bacteria. The gases were collected by the displacement of mercury, instead of over water or brine. He also showed a method of inoculating large flasks under strictly anaerobic conditions. He had found that the bacillus pyocyaneus and some other organisms which were generally regarded as anaerobic would grow aerobically when the culture medium contained nitrates.

Mr. PAKES also made a communication upon the Effects of Media containing high percentage (4 or 5 per cent.) of Nitrate upon the Morphological appearances of certain Bacteria. The bacillus pyocyaneus appeared like a cladothrix and the bacillus typhi almost like a blastomyces.

Dr. F. F. CAIGER, Dr. R. M. BEATON, and Mr. PAKES made a communication on the Value of Neisser's Stain in the Diagnosis of Diphtheria. They gave an account of 100 cases which had been admitted to the South-west Fever Hospital certified as suffering from diphtheria. These cases were diagnosed both clinically and bacteriologically, the former at the Fever Hospital and the latter in the laboratory at Guy's Hospital. The results showed that the two diagnoses agreed in 70 per cent. In 25 per cent. of the cases in which diphtheria was diagnosed clinically the bacteriological examination failed to show bacilli upon culture. In 5 per cent. the bacteriological examination showed the Klebs-Löffler bacilli when the clinical evidence was negative. They concluded generally that Neisser's stain made the bacteriological examination more easy than when only methylene blue was used. The disease could by this means be [illegible] ortion of cases from the examinati[illegible] directly from the swab by the us[illegible] account of the more distinctive [illegible] bacilli after staining by Neisse[illegible] of the disease bacteriologically could be made by those who could not be regarded as experts. It was a fact of great value that the bacillus could be revealed by the direct examination, without loss of time, of a cover-slip made from the throat swabs. In 18 out of 48 cases they had been able to accomplish this operation, which required, however, some manipulative and practical experience.

Dr. J. A. BUTLER and Dr. H. S. FRENCH gave a preliminary account of a Research upon the Nitrogenous Metabolism in Bright's Disease. The investigation had been carried out during a period of 41 days upon a boy, seven years of age, suffering from subacute nephritis. During the last 12 days of the period he had mild but distinct symptoms of uræmia. The estimations made were: (1) the total nitrogen in his daily intake; (2) the total nitrogen in his daily output of urine; (3) the nitrogen excreted as urea in his urine; (4) the nitrogen excreted as coagulable proteid in his urine; (5) the nitrogen excreted as uric acid in his urine; (6) the total nitrogen in his fæces; and (7) the nitrogen as "other bodies" in his urine. The conclusions arrived at were as follows: (1) that when the patient was most ill he was excreting more nitrogen than when he first came into hospital, whilst when he was better the urine and fæces together did not return as much nitrogen as his food contained; (2) that the relation of the nitrogen as urea in the urine to the total nitrogen in the urine was less than during health—namely, 75 6 per cent. instead of 86 per cent.; but that if the nitrogen present as coagulable proteid were first deducted from the total nitrogen in the urine then the nitrogen as urea formed 83·4 per cent of the remainder; (3) that the relation between uric acid and urea was as 1 to 47 6, which was not very different from the proportions found during health by many observers, though less than the figure given by Haig as normal—namely, 1 to 35; and (4) that the amount of nitrogen in the fæces was relatively large—namely, 14·7 of the total in urine and fæces—whereas other observers had found, some 6 and others 11 per cent.

Mr. J. W. EYRE made a communication on the Differential Diagnosis of Strains of Pneumococci. In a previous communication by Dr. J. W. Washbourn and himself it had been pointed out that there exist varieties of the pneumococcus which at present could only be distinguished by the action of anti-pneumococcic serum. Out of six strains of pneumococci under observation at that time, which appeared identical in respect to their morphology and cultural reactions, Pane's anti-pneumococcic serum would protect against five but not against the sixth. The results of some previous observations on the reaction of various nutrient media and the method then adopted to obtain a standard reaction[1] were then described. Phenolphthalein was used as the indicator and the reaction thus estimated was shortly expressed by stating the number of cubic centimetres of normal acid or alkali required to exactly neutralise one litre of medium, the signs + and – being prefixed to indicate acidity or alkalinity respectively. It was also suggested, provisionally, that media having a reaction of +10 should be used as a standard for general work. In the course of some experiments to determine the "optimum reaction" for the growth of two special strains of the pneumococcus Mr. Eyre found that there was a constant optimum reaction for each. The two varieties of cocci employed were those numbered 1 and 5 in the paper previously referred to, and differed in that animals experimentally inoculated could be completely protected against strain No. 1 by the use of anti-pneumococcic serum, but the serum was powerless to protect rabbits inoculated with strain No. 5. Whilst No 5 preferred medium having a reaction of +10, No. 1 selected +8. So marked was the preference of each of these two varieties of cocci for its respective "optimum reaction" that cultivations made in such media would give evidence of growth, macroscopically, in from five to six hours (at a temperature of 37° C.), whilst cultures in media of other reactions did not show sufficient growth to be visible to the naked eye under 10 or 12 hours. Broth cultivations of the two strains of pneumococci six hours old were exhibited.

Dr. J. H. BRYANT reported the Bacteriological Examinations of three cases of Ante-mortem Thrombi. In the first case, which was one of mitral stenosis and tricuspid regurgitation, extensive ante-mortem thrombosis of the pulmonary arteries was found at the post-mortem examination made five hours after death. Streptococci and the staphylococcus albus were found in cultures and microscopical preparations. In the second, which was a case of tuberculous peritonitis with thrombosis of the right lateral saphenous vein, a pure culture of the proteus vulgaris was obtained, the post-mortem examination, however, being made 20 hours after death. In the third, which was a case of diffuse carcinoma of the stomach with thrombosis of both saphenous veins, a pure culture of bacillus subtilis was obtained from the left saphenous vein and of staphylococcus albus from the right saphenous vein. The post-mortem examination had been made four hours after death. The relation of these bacilli to the thrombosis was discussed. The finding of non-pathogenic organisms like proteus vulgaris and bacillus subtilis was particularly interesting. The latter had possibly found its way into the blood-current through an old ulcer which the patient had on his leg.

Professor VAUGHAN HARLEY and Dr. WAKELIN BARRATT gave a demonstration of the Production of Hepatic Cirrhosis by Ligature of a Single Bile Duct. The change thus produced was limited to the area of the liver drained by the ligatured duct, and the rest of the liver remained unaffected. The general health of the animals operated upon was in no way altered. The change produced resembled that present in the human liver in cases of cirrhosis. There was an interlobular growth of fibrous tissue containing numerous bile-ducts of new formation The hepatic lobules underwent atrophy and might entirely disappear. The largest bile-ducts were dilated and tortuous, but still contained bile even as long as 16 months after ligature. The subject was illustrated by lantern slides.

Dr. R. H. J. SWAN exhibited a specimen of Calcified Hydatids taken from the body of a man, aged 66 years, which had been discovered accidentally in the dissecting room. The patient had been admitted with bronchitis the day before death and no clinical history was obtainable.

Mr. J. H. TARGETT exhibited microscopic specimens from a case of Cirrhosis of the Liver.

---

[1] Transactions of the Pathological Society, vol. li., p. 223.

OBSTETRICAL SOCIETY OF LONDON.

Adjourned Discussion on the Pathology and Treatment of Puerperal Eclampsia, with Special Reference to Treatment by Saline Infusion.—Exhibition of Specimens.

A meeting of this society was held on May 1st, Dr. **Peter Horrocks**, the President, being in the chair.

The discussion on Dr. Hey Groves's paper on the Pathology and Treatment of Puerperal Eclampsia, with Special Reference to Treatment by Saline Infusion, was resumed by Dr. **T. W. Eden**, who said that one of the points upon which all observers were agreed was that albuminuria was attended by a heavy fœtal mortality, from 30 to 77 per cent., and that the fœtus was imperfectly developed. It was important to note in this connexion that a diseased condition of the placenta was also frequently met with in albuminuria, and it seemed probable that this condition had much to do with the fœtal mortality and the feeble development. Without entering into detail, the placental changes might be said to consist of extensive infarction, which had been termed "pathological infarction" to distinguish it from the normal process in the adult placenta. Infarction in the healthy placenta had been shown to start in obliteration of the fœtal arteries; in "pathological infarction" arterial obliteration attained a greater degree of severity. The primary lesion was probably identical in the two. The toxæmic theory of the causation of albuminuria offered the best explanation of the clinical phenomenon of this disease and also of the occurrence of these placental lesions. The accumulation of toxins in the maternal blood would rapidly affect the quality of the fœtal blood and the changes in the fœtal arteries would then be due to the impurity of the blood flowing through them. The toxins might be formed in the maternal tissues, but there was something to be said for the alternative view that they were products of fœtal tissue metabolism. If the toxæmic theory of albuminuria was accepted the renal and hepatic changes must be regarded as mere incidents of the disease and not as the cause of it. The great objection to this theory appeared to him to be that it proved too much, for it would prove that every pregnant woman must suffer from albuminuria. There must in the first place be a deficiency in the normal rate of elimination, allowing of the accumulation of toxins in the blood and thus starting the whole train of symptoms. Sir Andrew Clark had described a condition of "renal inadequacy," due, not to definite changes in the kidneys, but to deficient elimination through those organs. It was possible that some such condition occurring during pregnancy was the primary fault on the part of the mother.

Dr. **Arthur Giles** said that in order to form a clear judgment as to the value of saline transfusion or any other therapeutic measure in the treatment of eclampsia it was necessary to make some further differentiation than was involved in speaking simply of eclampsia. It was necessary, in the first place, to distinguish between renal disease accidently complicating pregnancy and cases of albuminuria with toxæmia due directly to the pregnancy itself. In the second place, a distinction should be made between a condition of diminished or suppressed excretion and a toxic condition of the blood independent of such diminution or suppression. Primary renal disease was generally associated with imperfect elimination, and in such cases the value of saline injections was doubtful. Here it was preferable to rely on the measures applicable to cases of uræmia apart from pregnancy—viz., hot packs, diuretics, and free purgation. On the other hand, the toxis of pregnancy was not necessarily associated with faulty elimination, and in these cases the best results might be expected from the treatment advocated by Dr. Groves. There was a considerable difference in the prognosis also. In the case of primary renal disease the immediate prognosis was worse and there was little prospect of cure after delivery, whilst in the toxis of pregnancy the immediate prognosis was better, recovery after delivery was generally complete, and a repetition of pregnancy was not necessarily accompanied by a return of the symptoms. When saline injection was indicated some authors advocated that it should be combined with venesection in plethoric patients, and it appeared to him that there was a good deal to be said in favour of this plan. The injection of saline solution into the cellular tissue, under the breast or into the abdominal wall, was often easier and quicker than venous transfusion. It had also been said that it was more efficacious inasmuch as the fluid became mixed with the serum in the tissues before passing into the general circulation.

Dr. **Robert Jardine** (Glasgow) said that he believed in the toxæmic theory of eclampsia. The toxin seemed to him to be a waste product of tissue metabolism. Dr. Eden had referred to the belief that on the death of the fœtus albumin lessened or disappeared. He (Dr. Jardine) had seen three severe cases of eclampsia with macerated fœtuses in which the albumin had been abundant. A very important point was how the maternal system dealt with the waste-products. In the first place, elimination by the alimentary canal was below the normal Constipation was the rule in pregnancy and it was markedly so in eclampsia. He believed the toxin acted on the kidneys like turpentine and cantharadine Albumin and often blood appeared, excretion was lessened, and there might be complete suppression of urine. He had brought with him sections from four livers, showing marked evidence of degenerative changes in the cells. He was convinced that the liver played an important part in the destruction of the toxin. He had published a case in which a second attack of profound coma had supervened on the fifth day in which the urine was heavily loaded with bile pigment. The kidneys had been acting very freely or otherwise the patient would probably have died. Dr. Groves believed that increased coagulability of the blood caused multiple thrombosis and thus brought about the fits. He believed that the fits were caused by the toxin acting directly on the nerve centres. The toxin seemed to him to affect the fœtus as it did the mother. He had found albumin in the urine in all cases examined. He had also found it in the urine of several infants whose mothers had had severe albuminuria without fits. Given a toxin in the system he thought the most rational form of treatment was one which aimed at clearing it out through the natural channels by acting on the bowels, the skin, and the kidneys. Diuretics by the mouth were too slow, but by giving a solution such as he used—viz., the normal saline solution with one drachm of acetate of soda to each pint—he claimed that diuresis was quickly established. By the second day diuresis was profuse, the poison was diluted, and the whole system was stimulated. To test the results of this method of treatment he gave statistics from the Glasgow Maternity Hospital. Dr. Munro Kerr had found that during the last 15 years 80 cases had been treated. The old methods had given a death-rate of 47 per cent. while with the saline infusions there was a death-rate of 24 per cent—a fall of very nearly 50 per cent. It must be borne in mind that they had to deal with very bad cases, many of them actually moribund. He personally had had three deaths in 22 cases. He had great faith in the saline infusion as a remedy.

Dr. **Munro Kerr** (Glasgow) said that he was much in favour of the employment of saline infusion in eclampsia. Saline infusion was undoubtedly a most powerful though slow diuretic. In addition to having a diuretic effect the infusion acted as a cardiac stimulant and diluent to the poison. He quoted cases to illustrate these latter two effects of saline infusion. His position regarding saline infusion was that he considered it a most valuable adjunct to the general treatment of the disease. He did not advocate it to the exclusion of such drugs as morphia or chloral, which should be used only if there was much restlessness and the fits were not at once arrested by saline infusion. As regards the high fœtal and infantile mortality he thought that while occasionally deaths might be caused by changes in the placenta such as Dr. Eden had described it was most likely to be due to the same toxins. He mentioned a case that had been under his care in hospital a few days ago where the child of an eclamptic woman was born apparently strong, but had developed on the second day convulsions which were followed by coma and death. The infant's urine contained a large quantity of albumin.

Dr. **Amand Routh** took exception to Dr. Groves's explanation of the way in which the convulsions were brought about—namely, that "the actual convulsions and coma resulted when these toxins caused the coagulation of the blood and the multiple capillary thrombi." He agreed with Dr. Herman that this point had not been proved. As a rule, saline transfusion had not been used till the fits came on, but if it were given in the pre-eclamptic stage the effect on the urine would prove a better test of its utility. They had heard the mortality statistics at the Glasgow Maternity

Hospital before and after this method of treatment, but they were not told what treatment had been in vogue previously to the introduction of the method of saline transfusion. In Dr. Jardine's and in Dr. Groves's cases the saline treatment was not used alone, but was supplemented by the administration of salts, hot packs, veratrum viride, &c. Whatever might be the value of saline transfusion in the pre-eclamptic stage it seemed to him that they would still have to rely on sedatives in the treatment of the actual eclamptic convulsions.

Dr. M. HANDFIELD-JONES thought that it was unscientific to talk generally of treating puerperal eclampsia by saline infusions, as if all cases of this complication were of the same nature and required the same treatment. It was quite true that the retention of toxic products in the system probably often accounted for the convulsions, but in other cases the fits seemed to be originated in the central nervous system. Undoubtedly, in certain as yet undemonstrated cases the injection of saline fluid was useful. Numbers of cases were cured by a single blood-letting, by the evacuation of the liquor amnii, or by the use of sedatives, and in such cases the transfusion treatment was absolutely unnecessary.

Dr. W. S. A. GRIFFITH quoted statistics from Queen Charlotte's Hospital to illustrate his remarks at the previous meeting. From January, 1899, to March, 1901, 2630 women had been delivered, and of these 135 (5 per cent.) had albuminuria, being 7 2 per cent. in primiparæ and 1 6 per cent. in multiparæ. Of these albuminuric cases six patients had eclampsia and they all recovered.

Mr. E. RUMLEY DAWSON disapproved of Dr. Japp Sinclair's statement that no general practitioner should miss the fact that a patient was suffering from uræmia. He (Mr. Dawson) thought that repeated urine testings were impracticable in a busy general practice. He had no personal experience of the treatment by saline infusion, but he thought that the difficulty and occasional danger of the operation should not prevent its being used by general practitioners.

The PRESIDENT said that he was not convinced by the cases published that in saline transfusion they had a remedy for puerperal eclampsia. As a fact there were already many remedies or modes of treatment, and whenever a disease or illness had several methods of treatment it generally meant that there was no known cure. Although pilocarpine was a dangerous drug in unsuitable cases, he believed that, judiciously used, it was a valuable mode of treatment in puerperal eclampsia. With regard to the injection of saline fluid he thought it was perhaps better not to inject it into the veins but into the cellular tissue and rectum, because it must be remembered that in these cases there had been no loss of blood and hence there was no underfilling of the vascular system as in cases of profound hæmorrhage, and moreover the blood-pressure was generally raised owing to the convulsions, and therefore it might not be without danger to add rapidly several pints of fluid. He did not for a moment believe that the blood would absorb the saline fluid from the cellular tissues or from the rectum to any dangerous extent, because it was a physical process (osmosis, &c.) and the blood would cease to absorb any more when the vessels were full. Nevertheless he could not help thinking that if there was any truth in the theory that puerperal eclampsia was due to a toxin circulating in the blood, and any truth in the theory that diluting the blood would cure or mitigate the fits, then blood should be drawn from one median basilic vein and saline fluid should be injected into the opposite one. Or at all events blood should be withdrawn from a vein and saline fluid should be injected into the cellular tissues and the rectum whence it would be rapidly absorbed and so restore the blood-pressure and at the same time dilute the blood. He considered that sufficient evidence had been brought forward by Dr. Groves, Dr. Jardine, Dr. Munro Kerr, and others to warrant further trial of this method of treatment in puerperal eclampsia.

Dr. GROVES, in his reply, dealt with the statistics of mortality of Veit's treatment of eclampsia by morphia and Charpentier's by chloral, but he said that other observers had not met with equal success. He thought that the minute hæmorrhages found in the brain, in the kidneys, in the liver, and in other organs surrounded by areas of necrosis were due to the morbid state of the blood and blood-vessels and not to the mechanical results of the fits. He advocated repeated saline transfusion when there were profound coma, cyanosis, and anuria, with chloroform during delivery.

The following specimens were shown:—

Dr. JARDINE: Microscopical Sections from a Liver in a case of Fatal Eclampsia

Dr. MUNRO KERR: Dermoid Cyst of the Ovary successfully removed during Labour.

Mr. C. E JENNINGS: Transfusion Apparatus.

Lieutenant-Colonel A. J. STURMER, I.M.S.: Perivagina Tumour containing (?) "Hydatidiform" Cysts (referred to sub committee).

OPHTHALMOLOGICAL SOCIETY.

Exhibition of Cases, Specimens, &c.

A CLINICAL evening of this society was held on May 2nd, Mr. G. ANDERSON CRITCHETT, the President, being in the chair.

Mr. NETTLESHIP (for Dr. D. J. WOOD) read notes of a case of Pulsating Double Exophthalmos following injury to the head, cured by Ligature of the Left Common Carotid. The patient fell on his head from a bicycle and was picked up unconscious. The exophthalmos developed gradually, pulsation being very obvious, and the left carotid was ligatured 10 days after the accident. Pulsation was arrested immediately, but some signs of aphasia and paresis supervened which cleared up, marked improvement occurring after 24 hours. After operation vision in the right eye was $\frac{6}{6}$ and in the left it was $\frac{1}{60}$ owing to atrophy and scotoma. Pulsation and proptosis were permanently abolished.—Mr. TREACHER COLLINS referred to a case under his care two years ago resulting from a bullet wound. The missile was located by the x rays at the base of the basilar process; there was pulsating exophthalmos and the bruit was not only audible to the patient but to those near him; manual pressure was tried but it proved unsuccessful and Mr. T. H. Openshaw ligatured the common carotid with great benefit, though the condition recurred after eight months in less degree.

Mr. G. W. ROLL exhibited two cases of Congenital Ptosis in which Hess's operation had been performed with benefit. The elder lad had been operated upon three years ago and the cure was probably permanent. One year only had elapsed in the case of the younger, but in this the condition was bilateral and he had quite lost the habit of throwing the head back, common in these cases. Mr. Roll referred to Mr. J. B. Lawford's account of Hess's operation in the thirteenth volume of the *Ophthalmic Review*, but said that he preferred to leave the stitches in 14 days instead of 10 days and also inserted them nearer the free margin of the lid instead of midway between that level and the margin of the orbit.—The PRESIDENT cited five cases in which he had operated, of which two were permanently successful and three appeared to be drifting back to their original condition.

Mr. SIMEON SNELL exhibited a Sarcoma of the Right Orbit removed from a miner, aged 38 years, on Dec. 10th, 1900. A small nodule had been noticed eight months previously beneath the lower lid and had gradually enlarged till at the time of the operation the growth was of the size of a pigeon's egg, freely moveable, painless, and could be pushed back along the floor of the orbit. The globe was slightly raised. When removed the tumour was kidney-shaped, three centimetres long by two centimetres wide, definitely encapsuled, and made up of large spindle-shaped cells.

Dr. RAYNER D. BATTEN exhibited two cases of Serous Iritis with Tachycardia. The first patient, a girl, aged 14 years, had been one year under observation. The serous iritis was very marked and in January last a nodular deposit appeared in the inferior angle of the anterior chamber; this had diminished somewhat and become vascular. The tachycardia and thyroid enlargement had improved at one time and had then recurred. The second girl, aged about 20 years, presented well marked serous iritis with synechiæ of the iris, there was persistent tachycardia with enlarged heart, tremors, and flushings, but no distinct enlargement of the thyroid gland. Dr Batten had met with other cases of a similar kind, in one of which the patient suffered from a destructive sclero-keratitis with loss of the eye.—The PRESIDENT recalled two cases presenting this combination of symptoms.

Mr. G. HARTRIDGE exhibited a case of Choroiditis which had been shown in an early stage in December, 1893. Vision in one eye was $\frac{6}{6}$ and in the other $\frac{6}{60}$, though the fundus change in both seemed about the same.—The PRESIDENT referred to a somewhat similar peculiarity of vision in connexion with nebulæ; sometimes with a small area of cornea involved vision was very defective, while in others with an apparently extensive opacity the patient could see wonderfully well.

Dr. A. S. **PERCIVAL** showed a pair of Periscopic Glasses. The lenses being concave allowed of lateral movement of the eyes, provided the paper read was slightly curved, without the distortion usually experienced while using lenses ground on the flat. The curve was so arranged that the circle of confusion, developed when looking 25° right or left, was not larger than the maximum sectional area of a retinal cone 0 002 millimetre.

Mr. W. **LANG** showed an infant with a Congenital Notch in the outer part of the Left Lower Lid and Dermoid Growths on the Eye. The latter were flat and more loosely connected than usual.

Mr. **ADAMS FROST** exhibited a girl with a variety of Malformations about the Face. There was a quadrilateral gap in the right upper eyelid, the lashes being absent, while above the eyebrow was a tuft resembling them. The caruncle was deformed; at the outer canthus there projected a mass resembling a lobe of the lacrymal gland. The development of the external ear was defective on the same side, and though there was no meatus hearing was not entirely absent. A dermoid structure existed near the right angle of the mouth, also projecting on the inner aspect, and there was a dimple on the left side as if something had been removed. The eye was healthy; there was no coloboma of the choroid. —Dr. **JOHNSON TAYLOR** said that dermoid growths on the cornea sometimes had deeper connexions than were apparent and required to be handled with caution to avoid perforating the globe —The **PRESIDENT** recommended a blunt-pointed knife for the purpose.

Mr. C. **BLAIR** exhibited a Portable Refractometer which consisted of a spectacle frame carrying revolving discs fitted with glasses so arranged that an extensive range of lenses could be placed before each eye, saving time and trouble in retinoscopy and testing. The discs were five inches in diameter and the frame weighed eight ounces.

Mr. J. B. **STORY** showed a Thorn which had been buried in the iris at the edge of the anterior chamber for two months, the outer end being entirely obscured by lymph; when once discovered the removal had not been attended with difficulty.—The **PRESIDENT** said that he had found a splinter of wood in the anterior chamber of an eye that had been injured while the patient was chopping wood 12 years before. Some irritation had occurred on three occasions.

Mr. C. **WRAY** showed a case of Primary Chancre of the Lower Lid which had been inoculated by the finger-nail after scratching a specific sore.

Mr. **WRAY** also exhibited a man who had had Extensive Detachment of the Retina. There were 15 dioptres of myopia. The tunics of the eye had been twice punctured with a Graefe's knife at a fortnight's interval, after the manner described by Wolf. The eye in addition had been bandaged and instilled with atropin and mercury and chalk powder had been administered in two-grain doses thrice daily. The retina had become reapplied to the choroid and vision was $\frac{6}{60}$ and improving.—Mr. **MARCUS GUNN** said that the operation in question had been repeatedly performed before the account published by Wolf and could not rightly be associated with his name. In the present case there was still a little detachment and also some affection of the choroid resulting from the interference which no doubt assisted the re-attachment.—Mr. **JOHNSON TAYLOR** said that he had performed the operation two or three times, but he thought that in all the cases the patient's condition had been made worse —The **PRESIDENT** said his own experience had been disastrous. In one case in which he had advised against the operation the patient had since undergone three operations in Paris at considerable expense and vision was only equivalent to J. 19, though previously it was J. 8.

Mr. **WRAY** also exhibited a case of Doubtful Exostosis of the Orbit (with skiagrams).

Mr. **HOLMES SPICER** showed a case of Spring Catarrh in a Quiescent Stage. The appearance was quite typical, the milkiness of the lids and the granular condition of the conjunctiva being well marked and showing the characteristic hexagonal pavement appearance. The patient had spent three years in Johannesburg, having attacks each summer, but he had suffered most of all when crossing the line at sea on his return when exposed to the greatest heat.—Mr. **LANG** expressed his opinion that it was of the greatest importance that rather uncommon cases of this sort should be shown at the society. He had under his care at the present time a child who had, in consequence of this complaint, been subjected to a plastic operation which had resulted in ptosis, pannus, and iritis. Had the condition been recognised no such treatment would have been undertaken.

Dr. A. H. **THOMPSON** showed a case of Double Temporal Hemianopsia with Optic Neuritis which occurred suddenly at 5 A.M. three weeks ago in a young woman in association with the vomiting of pregnancy. The outer half of the visual field was lost in both eyes, which presented the characteristic hemianopic pupil reflex, no contraction taking place when light was directed from the temporal side, though it was manifest when thrown into the eye from the nasal side. The discs showed the changes of neuritis. The lesion was probably of the anterior part of the chiasma.—Mr. **GUNN** suggested hæmorrhage into the pial sheath.—The **PRESIDENT** thought the indications were against the supposition of tumour.

Mr. J. H. **FISHER** showed a case of Thiersch's Graft of the Orbit employed after removal of the globe, retro-ocular tissue and lids for sarcoma of the sclerotic. There had been three operations. The skin was obtained from the arm and a month after the operation it had covered the orbit, obviating at once the slow process of granulation and the unsightly contraction of the eyebrow. Three other cases had been treated in a similar way with equally good results by continental surgeons.

HARVEIAN SOCIETY OF LONDON.

Deciduous Dentition as a Factor in the Health of the Child.

A MEETING of this society was held on May 2nd, Dr. F. W. **COCK**, Vice-President, being in the chair.

Mr. W. H. **DOLAMORE** read a paper on Deciduous Dentition as a Factor in the Health of the Child. He said that he thought the importance of this dentition was hardly sufficiently recognised and he proposed to emphasise this by, first, considering the part played by the septic condition of the mouth, induced by caries of the teeth as a predisposing or exciting cause of diseases in the child. Of these he mentioned ulcerative stomatitis, necrosis of bone, and enlarged lymphatic glands, which latter might become the seat of tuberculous growth, whence the system might be generally infected. He also was of opinion that if in an adult gastric and intestinal diseases could be due to oral sepsis, *a fortiori* this would also be the case in a child. Secondly, he referred to the fact that for eight years, between the ages of two years and 10 years, the child was dependent on the deciduous teeth for the important part which the mastication of food played in nutrition and that hence these teeth should from the beginning be regularly cleansed and caries arrested in its early stages. To emphasise these points he quoted statistics comparing the growth of a child during the eight years, from two to 10 years of age, with a like second period—from 10 to 18 years of age. These figures showed the ratio of growth of the first to the second period to be for a male child 75 to 61, and for a female 75 to 42; whilst the fact that in spite of decreased growth the child during the second period increased in weight far more than during the first suggested, he considered, that during the earlier period the nutrition of the child was not in excess of absolute need. He drew from these data the conclusion that the mastication of food could not be interfered with by the decay and extraction of deciduous teeth without impairing the health of the child. He suggested that the matter was of sufficient importance to merit the attention of school authorities, especially of such as had to do with the children of the poor.

Dr. **COOK**, after thanking Mr. Dolamore for his most interesting and valuable paper, emphasised the points of earliest cleanliness with the use of the toothbrush and the absolute necessity of examination also from an early period of the deciduous teeth by a dental surgeon.

Mr. J. **SEFTON SEWILL** said that he cordially agreed with Mr. Dolamore in his conclusions. It was pitiable to see the terrible wreck presented by the mouths of most young children brought to the hospital. Ignorance of the importance of systematic treatment of deciduous teeth was, however, confined by no means to the poorer classes, many parents of good social position being quite surprised to learn that it was possible to treat temporary teeth conservatively. It was most important to fill temporary teeth as soon as decay was perceived, rapid onset of root absorption precluding in most instances the possibility of saving them after the pulp had become exposed. He could see no reason to doubt that the temporary teeth were as fertile a source of systemic trouble as were those of the permanent set; but though the part played by these latter was generally recognised, he believed that even in so excellent a paper as that read by Dr. William Hunter before the Odontological Society no mention had been made of the temporary teeth. It rested largely with the medical practitioner to advise parents of the importance of attending to their children's temporary teeth.

Dr. **ALFRED EDDOWES** expressed his belief that toxins collecting in carious teeth became highly concentrated and, just as by flowing backwards they set up tonsillitis and probably other throat troubles, so by flowing out of the mouth with saliva they frequently set up a circum-oral eczema which in some cases spread to all parts of the skin. He related a case of complete coma cured in a few hours by lancing a tense gum, and he said that he had seen a child pass highly acid, pale urine containing uric acid crystals apparently as the result of the worry and disturbance of teething. He asked if there was a better remedy than a little chloral dissolved in glycerine for application to the tender tense gums during teething.

Dr. **E. CAUTLEY** doubted whether teething ever gave rise to fits unless there was some strongly predisposing factor present The deleterious effects due to septic infection of the mouth and alimentary tract from carious deciduous teeth were seen constantly and bad teeth also produced digestive disturbance through the food being "bolted" instead of being properly masticated. He thought that suitable diet after birth was of value in maintaining the nutrition of the deciduous teeth and he regarded all artificial modifications of milk &c. foods as inferior to unboiled milk for this purpose. The boiling of milk did undoubtedly render the salts less soluble. Suitable diet and oral asepsis were the only preventive measures available after the birth of a child. A judicious diet for the mother during her pregnancy and while nursing was also of considerable value.

Dr. **C. S. JAFFÉ** and Mr. **HUBERT C. PHILLIPS** also took part in the discussion, and Mr. **DOLAMORE** replied.

LIVERPOOL MEDICAL INSTITUTION.

Exhibition of Cases.—Ether and Chloroform.

AN ordinary meeting of this institution was held on April 25th, the President, Mr. **EDGAR A. BROWNE**, being in the chair.

Mr. **D. DOUGLAS-CRAWFORD** read notes of a case of Gunshot Wound of the Femur with a Wound of the Popliteal Vein, and showed the patient, a young man, aged 17 years. The wound of entrance was on the front of the femur just above the patella; the wound of exit was in the popliteal space. The popliteal vein was lacerated and was tied and the lower end of the femur was comminuted. Five months later the lower third of the shaft of the femur was much sclerosed and an opening on its outer side led into a cavity three inches long and three inches deep. This cavity was reduced in size by means of bone grafting, sponge-grafting, and aseptic wax. The method of chipping the femur and packing the cavity with the pieces proved most useful in healing up this cavity.

Mr. **DOUGLAS CRAWFORD** also read notes of a case of Gangrene of the Hand Associated with Temporary Glycosuria. The patient, a male, aged 49 years, had pushed his arm through a skylight and had wounded the ulnar artery and divided the ulnar nerve. Gangrene set in in two days, and as there was no apparent local cause the urine was examined and was found to be loaded with sugar. The sugar was present for 48 hours, after which it disappeared. The arm was amputated and the patient did well.

Dr. **T. R. GLYNN** introduced a patient, a male, aged 40 years, with symptoms of an Aneurysm pressing on the Left Bronchus. The physical signs in this and other cases of a similar character were the development of emphysema with lessened vocal fremitus and vocal vibration and with feeble respiratory murmur throughout the left lung. If the aneurysm did not rupture and the patient survived for a time certain pathological changes occurred in the lung and the patient was likely to die with symptoms of chronic lung disease, cough, expectoration, hectic, &c. Drawings were exhibited of the left lungs of two patients who had died under the conditions referred to. In one the organ was the seat of a caseating pneumonia breaking down; in the other scattered tuberculous foci were present. The impediment to the entrance of air into the lung seemed to have been followed by the development of tubercle. He believed that the lesion in both cases was tuberculous in character, though it had not been proved, the patients having been under observation many years ago before the discovery of the tubercle bacillus

Dr. **GLYNN** also related a case of Paracentesis of the Pericardium on two occasions, with recovery. A boy, aged 17 years, had pleuro pneumonia 18 weeks before admission and had never recovered During the illness some clear fluid had been aspirated from the left side. The chief symptom on admission was dyspnœa (the respirations were 30 per minute when he was propped up in bed). The pulse, which was 120, was soft and irregular. Physical examination revealed dulness over the præcordium, extending 2½ inches to the right and 5 inches to the left of the mesial line at the height of the nipple, and lower reaching as far as the axillary line. The apex beat was absent, and the heart sounds were feeble. The temperature was normal. At the end of a fortnight the pericardium was aspirated and 14 ounces of clear fluid were removed. The urgent symptoms were relieved, the apex beat became perceptible, and pericardial friction sounds were audible for the first time. In a month's time the fluid had re-accumulated and 23 ounces of clear fluid were removed. On this occasion a mercurial manometer was used to estimate the pressure of the fluid in the pericardium, by means of a T-tube behind the aspirating needle. The pressure at the commencement of aspiration was + 2 1 centimetres, and at the end of the operation it was – 2 centimetres. No organisms were discovered in the fluid. The pericardial friction sounds again returned, but in a week or two these disappeared, and there was no evidence that the effusion had recurred. The patient left the hospital at the end of March, 1901, apparently well, but he had just been readmitted with a return of the effusion.—Mr **R. W. MURRAY**, Mr. **G. P. NEWBOLT**, Dr. **T. R BRADSHAW**, Dr. **J. BARR**, and Dr. **J. H. ABRAM** discussed the case and Dr. **GLYNN** replied.

Sir **WILLIAM M. BANKS** read a paper on Ether and Chloroform. Commenting upon the value of physiological experiments and statistical commissions he held that neither had been of the least use in aiding them in their search for the best anæsthetic or the best method of using it. Physiological experiments as to the effects of chloroform carried out on healthy animals could not form comparisons when dealing with diseased, anxious-minded, nervous human beings. The recently-published Report of the Commission on Anæsthetics of the British Medical Association did not disclose anything that they did not know before, but it was of value in preventing future investigators from going over the same ground. With reference to the question of dosage so much depended upon the idiosyncrasy of the patient and the knowledge of the drug and experience of its administration on the part of the anæsthetist that nothing could be expected from mathematical regulation of dosage. The fundamental principle in the giving of anæsthetics was "plenty of air and plenty of anæsthetic." Discussing the dangers of ether and chloroform he pointed out the danger of taking a long time to put the patient under with small doses of chloroform, for by the time anæsthesia was produced the patient had inhaled a large quantity of anæsthetic and had gone under very deeply. Sir William Banks considered that the great dangers were (1) overdosage; (2) too small an allowance of air; and (3) violent repression during the stage of excitement. With regard to ether the danger was in the accompanying secretion of sticky mucus, which was apt to choke up the respiratory passages, and the after-irritation of sickness. With regard to the methods of revival attention was drawn to the very markedly stimulating effect of rubbing the lips and nose vigorously up and down with a towel. As to the method of administration he thought that the simplest means and forms of apparatus were the best, and he advocated the administration of brandy in from one- to three-ounce doses given with very little water, immediately before anæsthetisation. If this was gulped down like a nauseous drug it would not be vomited. He mentioned the "dread" of the anæsthetic as being a bad preparation for the patient, and he pointed out that this was undoubtedly fostered by the knowledge of coroners' inquests. He suggested that the British Medical Association might well bring power to bear upon a coroner, so that if a death from an anæsthetic should be reported it should be treated in the same way as would be a death from operation, public inquiry being dispensed with unless there was cause to believe that there had been neglect or administration by an unqualified practitioner. Finally, he advocated more systematic teaching. Hospital anæsthetists should take a share in hospital teaching and should be entitled to a share of clinical fees. Each student should be required before getting his certificate of dressership to have his card signed by the anæsthetist to the effect that he had administered so many anæsthetics under supervision.—Mr. Rushton Parker agreed with almost all that Sir William Banks had said, and could not too strongly urge the closest attention to the respiration, and while giving plenty of anæsthetic vapour, giving also plenty of air by not holding the inhaler too close to the patient's face. It was also a most dangerous thing to allow fluids to enter the air-passages—a condition that might at any time occur insidiously and asphyxiate the patient. While all professed to be aware of this fact many failed to perceive it when it occurred. The state of the patient should be one of comfortable warmth also, as he had seen dangerous symptoms arise in the contrary condition, owing apparently to the consequently impeded general circulation. The value of prompt inversion when danger was sighted or suspected could not be over-estimated, and of all routine devices it was probably the safest, by allowing liquids to flow out of the air-passages and by favouring the nutrition of the circulatory and respiratory nerve centres. By "watching the respiration" he meant never allowing the slightest impediment to the due entrance of the necessary vapours to the lungs and their free exit.—Mr. F. W. Bailey, in reading the report of the Anæsthetics Committee of the British Medical Association had been struck by the number of methods of administration, amounting to 45 in all. He referred to the shock of extensive operations, the idiosyncrasy of patients, and the accumulation of mucus as all tending to contribute to the collapse that had been spoken of, and he strongly advocated the better teaching of the subject of anæsthetics. —Dr. J. E Gemmell agreed as to the greater safety of ether and he considered that the objections to its use—viz, the secretion of sticky mucus and struggling—were both obviated if the patient to begin with was placed with the head and shoulders raised, so that the act of deglutition could be accomplished without effort and if in the administration only small quantities of ether were used to begin with, say one drachm instead of half an ounce being put on the sponge at a time.—Mr. W. Fingland, Mr. R. G. Sheldon, Dr. F S Pitt-Taylor, Dr. A. C Rendle, Dr. W. M Cairns, Dr. Joseph Walker, Mr. A. B. Gemmel, Dr. Hamilton, Dr. F E. Marshall, and Dr. Barr also took part in the discussion and Sir William Banks replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

Chronic Gastric Ulcer.—Unusual Cases of Pulmonary Disease.

A meeting of this section was held on April 12th, Sir George Duffey being in the chair.

Dr. William Calwell (Belfast) read notes of cases showing the effects produced by Chronic Gastric Ulcer. First a number of cases of perforation were cited; these all showed adhesions, in nearly every case strong and extensive, a thickened ring of indurated tissue around the perforation, and a history of years of gastric trouble. Three cases of very chronic adhesion, causing complete invalidism, were next detailed; these had been operated on, with considerable relief in two. Finally, three cases of dilatation of the stomach, due (certainly in one, probably in all) to pyloric or duodenal stenosis following ulcer and adjacent inflammation, were given. The conclusions drawn from a study of these cases were that better results would be obtained if a definite period were allowed for the trial of ordinary therapeutic methods, and that when the limit was reached exploratory laparotomy should be resorted to. As far as his experience went hydrochloric acid was absent from the stomach in cases of cancer.—Professor E. J. McWeeney said that for the last year or so he had tested the vomit from suspected cases of gastric cancer for hydrochloric acid in the Mater Misericordiæ Hospital, and the indication given by its absence was, in the main, found to be correct. Originally he had placed no faith in this test, but his recent experience induced him to alter that opinion.—Dr. Thompson said that last year he brought forward a case in which there were all the symptoms of acute perforating gastric ulcer, but on operation there was no sign of gastric ulcer to be found.

Professor James A. Lindsay (Belfast) read some notes on a series of Unusual Cases of Pulmonary Disease. The series included three cases of malignant disease of the lungs, two cases of pyo-pneumothorax with broncho-pleural fistula, a case of pneumonia with delay of crisis until the twentieth day followed by recovery, and a case of plastic bronchitis. In the first of the three cases of malignant disease of the lungs the primary deposit was in the gall-bladder; in the second the pulmonary invasion followed an osteo sarcoma of the knee-joint; and in the third the primary disease was scirrhus of the mamma. Cough, dyspnœa, and thoracic pain were present in all the cases and hæmoptysis in two out of the three. The physical signs presented much diversity. In the first case the signs were dulness, loss of breath-sounds, and diminished tactile fremitus over the affected area; in the second case the signs simulated those of phthisis and consisted chiefly of scattered areas of dulness and of crepitation in the right lung, the apex not being affected; in the third case the signs were for a time simply those of general bronchitis. In all the cases pressure signs appeared at a late stage. The difficulty of early diagnosis in these cases was dwelt upon. The most important points seemed to be thoracic pain, dyspnœa out of proportion to the physical signs, the nature of the expectoration, and the presence of physical signs of consolidation or infiltration in the substance of the lung or at the root The history was very important. The pressure signs, which made diagnosis easy, might appear only towards the close Emaciation, night sweating, and pyrexia might all be present in malignant disease of the lungs. The distinction from phthisis rested mainly on the absence of bacilli from the sputum, the nature and localisation of the physical signs, and the history and progress of the case. The duration of these cases was given by Walshe as 13½ months, which was probably an over-estimate. In the cases of pyo-pneumothorax with broncho-pleural fistula the point of interest was that each patient made a good recovery without operation. The question whether free incision and drainage should be practised in these cases was raised and discussed, but no decided opinion was expressed It was a question whether, with a free outlet for the pus through the trachea, the patients' prospects would be improved by the method of surgical procedure which succeeded so well in ordinary cases of empyema. In the case of pneumonia with delay of crisis to the twentieth day, followed by rapid convalescence, the patient was a boy, aged six years, in whom pneumonia of the left base was followed by pneumonia of the right apex without any break in the temperature, which remained at 105° F. for some time. The delayed crisis was no doubt due to the second attack having overlapped the primary attack. A delayed crisis might occur in senile patients without obvious cause or it might be due to some complication, especially empyema In the case of plastic bronchitis the symptoms were mainly those of spasmodic dyspnœa The casts varied in length from half an inch to one and a half inches, and in diameter from that of a coarse thread to that of a fine toothpick. The diagnosis rested entirely upon an examination of the sputum The patient made a complete recovery after residing for some time in the interior of Cape Colony. These cases were very rare and the medical treatment was unsatisfactory. The pathology was still unsettled.—Sir George Duffey said that plastic bronchitis was very rare. He had only known one such case; it occurred in a relative of his and the first symptom was hæmoptysis coming on suddenly.—Dr. Doyle said that he had had three cases of malignant disease of the lungs, one of them being under his care at the present time. In all of them extension had taken place from the breast. In the case now running its course there was no hæmoptysis and very little expectoration, but there was marked pain —Sir J. W. Moore, Dr. Travers Smith, and Dr. Dempsey also spoke.

Hull Medical Society.—The ordinary monthly meeting of this society was held in the board room of the Hull Royal Infirmary on April 12th, Mr. T. M. Evans, the President, being in the chair.—Dr.

E. M. Hainworth showed an Amputation Neuroma existing along with keratinous horn.—Dr. D. Lowson showed a Fimbriated Growth from the Knee-joint.—Dr. H. W. Pigeon showed (1) a case of Excision of the Knee-joint which had resisted other methods of treatment; and (2) a case of Hydrocephalus in which pressure on the pyramidal tract had been evidenced by the presence of Babinski's sign. He was treating the case by draining from the fourth ventricle and in the meantime with considerable success. Since draining the above sign had disappeared.—Dr. Hainworth suggested that a better means of draining might be into the arachnoid space, hoping thus to establish a communication between the ventricles. There would, he thought, be less danger of sepsis.—Dr. Eve read a short paper on Babinski's Sign, illustrated by cases and with an abstract of the literature on the subject. The sign consisted in extension of the toes, especially the great toe, when the sole was tickled. The sole should be warm and dry and the outer part should be stimulated. The presence of the sign enabled the diagnosis of organic disease of the upper motor segments to be made, but its absence did not disprove pyramidal tract disease. It was never present in health (except in infants) or in functional paralysis. It was invaluable in recent organic hemiplegia when the tendon reflexes were still slight. Dr. Eve had made the sign part of his routine examination in hospital work for a year and had observed no exceptions. He thought this sign of decided value, but he complained that in many cases the rivalry between the normal and pathological reflex (i.e., flexion and extension of the toes) left the nature of the response uncertain.—Dr. Lowson read a paper on a case of Ruptured Duodenal Ulcer. The patient was a girl, aged 15 years, with symptoms of perforation, and certain signs connected with the symptoms pointed to the duodenum as the ruptured viscus. Her illness began in the end of February with pain in the left side. A fortnight later she had a series of rigors with much depression and cyanosis about the lips and nose. On March 17th a sudden attack of profound collapse supervened with severe pain to the left of the umbilicus, feeble voice, great pallor, and cold perspiration. On the 20th there was a good deal of vomiting, consisting of bile and fragments of partially digested milk curd. This ceased on the 25th, when the temperature ran up, the pulse increased in rapidity and feebleness, and the whole abdomen distended slowly. Dr. Lowson was called in on April 4th. The patient had then a foul-smelling breath and a small and feeble pulse, and her breathing was quick, shallow, and thoracic. There was uniform distension of the abdomen, and below the liver to the right of the middle line there was a distinct localised swelling with the convexity forwards and extending below the level of the umbilicus which projected somewhat. There was much pain and tenderness over this prominence and at the umbilicus. On percussion the area of prominence was distinctly dull and the dulness joined that of the liver, which extended well up to the axilla and was bounded by the ordinary lung note. Here there was strong presumptive evidence of the rupture of a hollow viscus and the remarkable thing was that in a case of such magnitude the patient should survive three weeks. The following day the parents consented that the abdomen should be opened, but on examination Dr. Lowson found that a remarkable change had taken place in the physical condition of the patient. The localised swelling had disappeared and the area of dulness now gave a clear tympanitic note on percussion, while the liver dulness was normal. The patient had been intensely sick during the night and had ejected a large quantity of foul-smelling matter. Dr. Lowson thus explained the change. At the outset of the sickness the contents of the abscess were forced back into the stomach through the ruptured ulcer and ejected by the mouth, their place being taken in turn by gases from the stomach, hence the change from a dull to a tympanitic note. The abdomen having been opened by a vertical incision through the outer part of the rectus muscle, on first entering the peritoneum some gas escaped and then a gush of matter with some solid shreds, which was recognised as coagulated lymph, and pieces of partially digested food. The odour of this matter was most putrid. The cavity having been flushed and sponged out was found to be bounded by coils of adherent intestine covered with granulations on all sides except above, where the liver adherent to the edge of the thorax helped to form a boundary, and on the right side where the abdominal wall alone bounded the cavity. An offshoot of the general cavity extended to the left as far as the umbilicus and this Dr. Lowson thought might explain the tenderness in this situation. A rupture of the size of a No. 6 catheter was found in the duodenum and the contents were seen issuing from it. After disinfecting and scraping the granulations round the hole he inserted Lembert's sutures of fine silk, introduced a gauze drain, and closed the wound. There was now some pus still draining, but the condition of the patient was good. Dr. Lowson concluded by indicating the points of interest in the case. The patient's position in bed was favourable to the formation of adhesions and the issue of the contents was slow because the opening was a small one, hence none of the fluid got between the liver and the ribs, the former becoming firmly bound to the latter, thus preventing all access to its upper surface. There could therefore at no time have been disappearance of the hepatic dulness. Dr. Lowson's experience had led him to the conclusion that this was a sign of most uncertain occurrence requiring a copious out-rush of gas to produce it, or, at any rate, unless this took place not to be elicited at the onset of the symptoms, and (as in this case) where the liver adhered to the side it could not take place at all. He had arrived at the diagnosis of ruptured duodenum rather than the stomach from the rule laid down by Penrose and others that a subphrenic pneumothorax to the left of the falciform ligament of the liver was always gastric, while that to the right was always duodenal. The last point of interest was the situation of the abscess. As a rule, these were said to be situated immediately below the diaphragm and were called subphrenic pneumothorax or abscess. This case was then exceptional. The reason was that evidently, as a rule, the gas rushed out and separating the liver from its close apposition to the side allowed the exuding liquid to flow up between the liver and the diaphragm. But here apparently with a slow outflow and little gas, as shown by the dulness to percussion when first seen, the liver was not pushed away but remained in its normal position, while the acrid fluid washed its under surface and border setting up a perihepatitis in these parts. The liver thus became glued and ultimately firmly fixed to the side in its usual position. The whole process was exceptional in some points but was easily explicable and in every way most interesting.

EPIDEMIOLOGICAL SOCIETY.—A meeting of this society was held on April 19th, Dr. Patrick Manson, the President, being in the chair.—Dr. Louis Sambon read a paper on the Principles Determining the Geographical Distribution of Diseases. After a reference to the inquiries and speculations of previous workers in this field, culminating in the classical treatise of Hirsch, Dr. Sambon said that it was necessary, in the first place, to have a clear conception of what constituted a disease. The nature of some diseases had been thoroughly investigated, but of others they really knew little. Specific organisms had been proved to be the essential causes of many infectious diseases and were properly assumed by strict analogy to be so in the case of others, though they had not yet been isolated and identified, but beyond this class bacteriology had afforded little help. The earliest parasite recognised was that of scabies, which was well known to the Arabian physicians, but in the West itch was explained by humoral hypotheses until in 1834, when the acarus was demonstrated by a Corsican student at Paris, and the latest discovery was that of the hæmatozoa of malaria. For the rest, the conventional classification of diseases according to the organs involved was unscientific, involving needless repetition; they ought to be described according to their causes, whether mechanical, chemical, parasitic, or otherwise, though this, of course, could not be done in the case of those the causes of which were ill-understood. Many, indeed, might be parasitic which were at present ascribed to totally different causes, e.g., gout and scurvy, which could not be wholly ascribed to dietetic errors, having a limited geographical distribution, and similar diseases being observed in beasts and birds. Others were deemed communicable or hereditary, but heredity meant infection. Leprosy was till quite recently held to be hereditary, as at one time were intestinal worms, while even syphilis was ascribed to meteorological influences. The study of the diseases of animals and of plants afforded evidence of the important part played by parasites, and lesions identical with those produced by alcoholism in man when met with in animals must find some other explanation. Cancer was probably parasitic, as also were many other so called neoplasms. Galls in plants, the parasitic origin of which was undoubted, presented striking resemblances to papillomata, epitheliomata, carcinomata, acromegaly, &c. The actual process was unknown, but the growth was not excited by the eggs, for it did not begin until they were hatched, and it ceased on the death of the larvæ. Probably all parasites were originally independent organisms, but once having become parasitic they underwent a process of specialisation, which, as in the limbless females of the strepsiptera, might be one of adaptation by degradation. Every animal and plant had its fauna and flora, and each parasite its host, one or less often two in succession. The areas of parasitic diseases were wide (typhoid fever, tuberculosis, dysentery), narrow (beri-beri), spreading (cholera, yellow fever), shifting (plague), or retiring, with change of conditions. Malaria had thus disappeared from England with the extinction of the anopheles and appeared with its introduction in Mauritius in 1868, while in Southern Italy it had subsided under the Roman Empire but had reappeared later. When animals and plants were supposed to have originated *in loco quo* climate was held to be the determinant factor, whereas we now knew it to be rather competition and adventitious aids, as the presence or absence of enemies, or in the case of plants of friendly insects or algæ. The parasitic nature of filariasis was shown by Dr. Manson many years ago, that of malaria by Major Ross quite recently, and it was now strongly suspected that yellow fever also depended on a hæmatozoon, having, too, its insect host. The spread of enteric fever in camps and its disappearance in the cold season were partly due to the action of flies in conveying infective matters in this, as, perhaps, in lesser degree, in diphtheria, small-pox, &c. The long immunity enjoyed by Europe from the plague was in part rightly ascribed to the advance of civilisation, but our knowledge of its laws was imperfect. No doubt sanitation in its widest sense would prevent the recurrence of "black deaths," but they had to reckon with rats and fleas. The connexion of the former with the spread of the infection, recognised by many native races of Asia, seemed to have been known to the ancients, for the Medes represented the god of the plague as riding on a rat, but it was not so as regards the flea, which was doubtless the immediate link between the rat and man, unless the strongly perfumed amulets and oiled linen worn by the Persians and recommended by the Arabian physicians during epidemics were intended for protection against their attacks. In conclusion, he maintained that the same laws governed the distribution of parasites and of other living things and predicted an ever-widening extension of the doctrine of parasiticism to the etiology and pathology of diseases in which it had not as yet been suspected.—Colonel Kenneth McLeod, I.M.S. (retired), pointed to Devonshire colic and the recent epidemic of peripheral neuritis in Lancashire as showing that local distribution alone was no evidence of a parasite causation, though, on the other hand, the limitation of elephantiasis arabum to littoral and insular climates was now explained to be dependent on climate only so far as this affected the distribution of the filaria and its other hosts.—Professor C. H. Stewart referred to the value of Pettenkofer's researches on the great influence of meteorological conditions on the prevalence and distribution of cholera, typhoid fever, and other parasitic diseases.—A Naval Surgeon remarked that the diseases with which he had to deal were mostly parasitic and were preventable by simple precautions; thus beri-beri attacked those men only who did not eat fat. It was a peripheral neuritis, and it was possible that the Lancashire disease also might be parasitic, the arsenic merely rendering individuals vulnerable thereto.—The President observed that alcoholism might be considered as a germ disease, being caused by a toxin formed by a microphyte though outside the body; such, too, was beri-beri. Dr. Sambon might have greatly widened the scope of his brilliant speculations if he had not treated germ diseases as exclusively parasitic, for many were due to micro-organisms altogether external. He remarked that the edible root of the potato was now held to be the result not of cultivation but of disease, a tumour caused by bacterial infection and not produced in plants raised from imported seeds and grown in sterilised earth.—Dr. Sambon, replying, remarked that peripheral neuritis appeared to follow so many causes that no one could be considered primary. In Italy it occurred as local epidemics that could not be explained by alcohol, arsenic, or any other of the commonly assumed causes.

Society of Medical Officers of Health.—A meeting of this society was held on May 8th, Dr. J. C. MacVail, the President, being in the chair.—Dr. Eustace Hill (medical officer of health of the county of Durham) read a paper on Sewage Disposal in Rural Districts by Bacteria Contact Tanks. He said that it was only quite recently that the true nature of the process of the transformation of the organic matter of sewage had been understood. For many years broad irrigation and downward intermittent filtration were the only methods recognised by the highest authorities, and they were still the most satisfactory where suitable and sufficient land was set apart. Even so late as March, 1894, a reviewer in *Public Health*, the official organ of the society, pronounced the Scott-Moncrieff process and the principles on which it was based—viz., the peptonising action of certain bacteria and the nitrification of organic matter by others—as "unworthy of serious attention," reserving his praises for processes which, aiming at the destruction of the bacteria, in direct opposition to Nature's method, have proved utter failures. About that time Mr. Dibdin's experiments on the treatment of sewage in coke filters and their practical application at Sutton in Surrey showed that the whole of the suspended, and most of the dissolved, organic matter could be removed from crude sewage by bacterial agencies alone without the use of chemicals. Mr. Cameron of Exeter also availed himself of the action of bacteria in his "septic tank," in which the sewage was submitted to peptonisation by anaerobes before being passed through filters for nitrification by aërobes. Dr. Hill then gave an account of his experience with the bacteria contact tank at South Moor, a mining village with a public water-supply guarded against waste but no baths or water-closets, the sewage being consequently concentrated, urinous, and soapy and not over 10 gallons per head. While the population did not exceed 1000, the sewage was satisfactorily disposed of by downward intermittent filtration on two acres of land, the effluent passing without offence into the Stanley Burn which provided part of the populous village of Chester-le-Street with drinking water; but when within the last few years the population rapidly increased to four times its former number the filtration was insufficient, the river became polluted, and an outbreak of enteric fever at Chester-le-Street suggested to Dr. Hill and the district surveyor the construction on the same site of contact tanks like those at Sutton, the beds themselves having an aggregate area of half an acre and treating daily a dry-weather volume of 46,000 gallons of sewage from 4600 persons, to which storm waters were from time to time added to several times the volume of the sewage. The sewage was passed through a small detritus chamber and a half-inch vertical screen to a subsidence tank 35 × 39 × 5 feet and holding 24,000 gallons, or about half the daily discharge. When this was full, usually after 12 hours, it was discharged on to the surface of the coarse filter-tanks in rotation. There were four of these, of brick and concrete, each 43 feet square by five feet deep, their total area being 820 square yards and their capacity 185,000 gallons. They were filled with broken and screened coke breeze and clinker from one to two inches in diameter, the capacity of each for sewage being a little over 20,000 gallons. On the floor of each was a diagonal network of open-jointed drain pipes, and an outlet pipe with screw-down valve communicated with a central chamber from which the effluent was conveyed by a channel to, and discharged over, a weir into the fine filter-tanks, the construction and arrangement of which were similar to those of the coarse filters, save that their area was larger and their depth less, being three feet only, the capacity of each for liquid being 25,000 gallons, and the filtering material being screened to a size of from a quarter of an inch to one inch. The collecting pipes were fewer and the effluent pipe, when its stop valve was opened, discharged directly into the stream. The height of the liquid in the several tanks was seen in four-inch drain-pipes standing vertically in each. As each filter tank was emptied the air taking the place of the liquid supplied the oxygen necessary for the activity of the microbes. At first the sewage was, as at Sutton, held up in the successive tanks for not more than four hours, but it having been found that the nitrification of the night flow remaining undisturbed for 12 hours was more perfect longer periods of contact, from eight to 12 hours, had since been adopted with the best results. Dr. Hill's inquiries as to the working of automatic arrangements elsewhere had not been satisfactory, and he relied at South Moor on an intelligent attendant.

The final effluent was invariably clear, bright, and wholly devoid of smell. From the first the results had been highly satisfactory, but since May, 1899, when after three months' working bacterial action was fully established, the organic ammonia had averaged 0 072 part per 100,000. Analyses of the effluent taken after many days showed the absence of further putrefactive changes and that there was no need for subsequent filtration through the soil—a condition of all loans from the Local Government Board. The whole cost was accordingly paid out of the current rates and it worked out at no more than 7*s.* 3*d.* per head of the population, while that of maintenance and the services of the attendant for three or four hours daily was but £30 per annum. The nature of the material used for the filters, whether coke, clinker, burnt ballast, or crushed rock, was of no importance, nor was the size of much moment provided that it was not too small, not under a quarter of an inch in the fine filter. There must be a difference of level of at least eight feet between the sewage and the outfall, or, if as at South Moor a collecting tank were interposed, of 12 feet. Where this could not be had it would be well to substitute the septic tank, which should discharge its effluent on to a fine filter bed for nitrification.—Dr. H. R. Kenwood said that the installation described by Dr. Hill was working under very favourable conditions, for the coarse beds were fed at a rate not exceeding from 90,000 to 100,000 gallons per day per acre, and though the sewage was strong their work was greatly lightened by the previous sedimentation. He preferred the principle of automatic mechanism, duly supervised, to manual labour alone, as tending to greater regularity in the feeding and emptying of the beds — Remarks were also made by Dr. J. W. Hombrough (Northumberland), Mr. Richards (Croydon), Mr. Beale Collins (Kingston-on-Thames), and others.

Hunterian Society.—A clinical evening of this society was held on April 17th, Dr. Dundas Grant, the President, being in the chair.—Dr. W. J. McC. Ettles showed a case of Ascites lasting since 1897. In February of that year the patient, a female, underwent an operation at the London Hospital and six weeks afterwards a second operation. She then came under the notice of Dr. Ettles who had since tapped her 28 times and had removed 566 pints of fluid At first the interval between each tapping was three and a half months and 29 pints of fluid were removed at a sitting. Now only six weeks elapsed and only from 16 to 18 pints were removed. A hard mass could be felt in the hypogastrium after the abdomen was emptied. There was no swelling of the ankles, hence the obstruction must have affected the portal vein only.—Mr. J. H. Targett quoted two cases which occurred some years ago in which there had been some hundreds of tappings performed at intervals of from 10 days to three weeks. In both of them double papillomatous growths of the ovary were found.—Dr. Ettles next showed a case of Tumour over the Right Clavicle of Doubtful Origin. Two and a half years ago the patient had syphilis. The Crookes tube and fluoroscope were applied to the patient during the meeting and marked swelling of the clavicle was seen, thus pointing to the probability of the tumour being a gumma of the periosteum —The President, Mr. H. L Barnard, Dr. T. Glover Lyon, Dr. Adams, and Mr. H. W. Carson discussed the case —Mr. Barnard showed a case of Spiral Fracture of the Tibia The patient, a man, aged 44 years, fell while carrying a sack of coals downstairs. He was admitted to the London Hospital with a fracture of the right tibia in the lower third and of the fibula in the upper third. A skiagram showed the fracture of the tibia to be a spiral one. For 10 days every effort was made to fix the fragments in a good position upon splints, but without success As the patient recovered from the anæsthetics the fragments slipped over one another and the lower end of the upper fragment threatened to perforate the skin and to make the fracture compound. The following operation was therefore performed 10 days after the accident. An incision half an inch long was made down to the subcutaneous surface of the tibia and one and a half inches above the pointed end which was threatening to perforate the skin. The fragments were firmly held by an assistant in as good a position as possible. A drill which was only a little smaller than the screw was then driven across the fragments obliquely. As the drill was withdrawn the screw was slipped into the hole and screwed home. It was felt to draw the fragments together and to lock them firmly. The sharp lower end of the upper fragment retreated from the skin. A cyanide gauze dressing was applied and the leg was placed upon a back splint with a foot piece. The screw was silvered steel. After 10 days the leg was put up in plaster and the patient went about on crutches. The screw was removed six weeks after it had been inserted. It could not be withdrawn like a nail or a tooth, but required to be unscrewed. It is better to remove such screws, as even after years they may give rise to abscesses, sinuses, and necrosis. The result of this simple operation, as viewed by the fluoroscope at the meeting, was seen to be good. The fragments were in line, firmly united, and there was no redundant callus.—Dr. Glover Lyon showed three cases upon an x-rays screen. The first was a case of Aneurysm of the First Part of the Aorta which two years ago had not been discovered upon first examination, but was at that time rendered plainly visible upon the fluoroscopic screen. The second case was one of Arrested Phthisis of six years' duration, the patient being now nearly a stone heavier than when first seen. The third case showed a generally Dilated Heart. The x-rays apparatus used at the meeting, lent and worked by Mr Harry Cox, was fitted with the Mackenzie-Davidson break and gave perfectly steady shadows upon the screen.

Rochdale and District Medical Society.—A meeting of this society was held on May 2nd.—Mr. W. Pooley showed specimens of a Dermoid Cyst which had simulated spina bifida The patient, a girl, 17 years of age, complained of a painful tumour at the lower end of the spine on the left side. A corresponding tumour on the right side had been removed in infancy. The patient had never attended school because she could only sit by crossing one leg under her and sitting on that. Examination showed a globular swelling over the sacrum of the size of a large orange The size was the same whatever the position of the patient. There were three or four sinuses discharging pus. The legs were well developed; there was no loss of control over the rectum or the bladder. The curve of the sacrum was exaggerated. Nothing abnormal could be detected per anum The diagnosis of spina bifida was made and it was decided to remove the tumour. The operation was tedious, the skin being adherent to one-third of the surface. During dissection some of the contents of the cyst escaped and hair presented at the opening, showing the true nature of the tumour. A piece of bone was adherent to the sacrum The case was one of "sequestration dermoid."—Mr. Pooley also showed a Testicle removed for Tuberculous Epididymitis —Dr. D. Richmond showed a Cyst of the size of a fœtal head removed from the right lobe of the thyroid gland of a woman, aged 60 years There had been a swelling for 30 years, but it had increased greatly during the past two months and was causing difficulty in breathing. The contents of the cyst were fluid débris and calcareous material. —Dr. W. J. Kerr read notes of a case of Round-cell Sarcoma of the Right Orbit pressing the eyeball down and out. There was some sloughing of the cornea. It was found impossible to remove the tumour with the globe in position, so enucleation was performed and the tumour was removed apparently completely. It recurred, however, in a few days. An attempt to remove a corresponding growth on the left temple was ineffectual owing to deep connexions, but no further growth occurred on that side. The patient, a boy, died three months later. He had become very anæmic and he suffered from hæmorrhages from the mouth and nose.—Dr. Kerr also mentioned a case of Strangulated Femoral Hernia, in which flatus was passed three hours after operation, followed shortly afterwards by free movement of the bowels. Motions followed in rapid succession, and, in spite of treatment, diarrhœa set in and lasted nine days, when the patient died from exhaustion The wound healed perfectly, there was no rise of temperature and only a little vomiting on the sixth day —Dr. Richmond and Mr. Pooley had each had a similar case.—Dr. Kerr exhibited sections of Alcoholic Livers showing Cirrhosis and Fatty Changes. He also exhibited a section of Liver showing Typical Cirrhosis from a man who died at the age of 44 years from the condition The patient was a life-long teetotaler and had not had syphilis —Mr. Wilton Mills mentioned a similar case of cirrhosis in a total abstainer.

Bradford Medico-Chirurgical Society.—A meeting of this society was held on April 16th, the President, Mr. F. Farrow, being in the chair.—Mr. W. H.

Horrocks read notes on two cases of Hypertrophy of the Breast. One of the patients was an unmarried woman, aged 22 years, who was admitted to the Bradford Royal Infirmary on Oct. 31st, 1898, complaining of enlargement of the right breast of 12 months' duration. It had been painless till 14 days before admission, when it had become red and painful and there had been a slight rigor. Her general health was good and the catamenia were regular. There was very great enlargement of the breast but there were no enlarged glands. The breast was amputated and the wound healed without trouble. The left breast was small and ill-developed. The other patient, a married woman, aged 21 years, was admitted in April, 1899, complaining of enlargement of both breasts. The catamenia were regular till five months before admission when she became pregnant. The breast had always been rather large since puberty and rapid increase in size began in the second month of pregnancy, rendering her miserable from the great weight and constant dragging pain. Both breasts reached almost to the umbilicus when she sat up. The circumference of the right breast at the base was 29 inches and that of the left base was 30 inches. The right breast was amputated on April 21st. The wound healed readily. Eleven days after the operation she was delivered of a five and a half months fœtus. The left breast was amputated on June 21st as it caused great trouble from its weight and its unsightly prominence. The wound healed readily.—Dr. Jason Wood read notes on two cases of Moveable Kidney giving rise to severe symptoms. One of the patients was a married woman, aged 38 years, very tall and stout, who had enjoyed good health till 18 months ago when she was seized with severe pain in the left hypochondriac region. The left kidney could be palpated for about half its extent and was tender. With a few days' rest and the wearing of a pad relief was obtained. There were no further symptoms till two months ago when she was again seized with pain and tenderness which passed off in about a week with rest in bed. The other patient was a married woman, aged 38 years. When seen on Oct. 6th, 1900, she had a temperature of 102° F. and a dry brown tongue; she vomited and was constantly passing bloody urine. There was a large swelling in the right hypochondrium which was excessively tender. On the 8th she was much better. On the 11th the tumour was smaller, moved freely, and felt like a kidney. On the 15th both kidneys could be palpated over the lower half and there was no pain or tenderness.—Dr. F. W. Eurich read a paper on Some Types of Locomotor Ataxia.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—A meeting of this society was held at 20, Hanover-square, London, W., on April 25th, Dr. A. J. Harrison, the President, being in the chair.—Dr. C. Herbert Thompson (for Dr. J. H. Stowers) showed a case of "Erythema ab Igne" in a young woman who was accustomed to take very hot baths, but had not been exposed to radiant heat sufficient to explain the cause of the eruption.—The President considered the eruption could not be produced by the hot baths.—Dr. E. G. Graham Little showed a case of a circumscribed patch of Lupus Vulgaris of the size of a sixpence on the cheek of a boy, aged 10 years, of almost identical appearance with the case shown to the society by Dr. Stowers some four months ago.—Mr. George Pernet showed cultures from the case of Ringworm in a young woman, aged 23 years, which was brought forward by him at the last meeting of the society, and gave a demonstration of the means of differentiating the types of ringworm met with in this country.

Reviews and Notices of Books.

The Law Relating to Poor-law Medical Officers and Vaccination. By M. GREENWOOD, M.D. Brux., LL.B. Lond., of Lincoln's Inn, Barrister-at-Law. London: Baillière, Tindall, and Cox. 1901. Pp. 104. Price 2*s.* 6*d.* net.

THIS is a work published under the direction of the council of the Poor-law Medical Officers' Association of England and Wales in order to provide a handbook for the use of Poor-law medical officers that will inform them upon questions which may occur to them relating to the duties of their office, and which will contain its information in such a form that it may be readily consulted and easily understood. Such information has hitherto been mainly available in more or less weighty volumes compiled by lawyers for lawyers, and from which information upon the various branches of the subject treated of can only be dug out by dint of research, while the research can only be conducted with reasonable speed and with any certainty by those who have had training and practice in similar operations. As far as it goes the small volume which Dr. Greenwood has produced, and to which the title has been given of "The Law relating to Poor-law Medical Officers and Vaccination," is capable of conveying to Poor-law medical officers and public vaccinators useful information in a compendious form, much of which they will be glad to acquire readily, particularly when first approaching the duties of their appointments. It is written in a clear style, it gives the author's opinions or deductions so that they can be understood and followed, and little or no space is wasted by the citation of authorities to which the reader is perhaps not likely to wish to refer. On the other hand, it is a handbook only and a small one at that, while, although it is possible to overburden a book for the use of those who are not lawyers by profession by the citation of law reports and by references to statutes and sections, it is to be remembered that a medical man in a difficulty as to his legal position may at times want to rely upon the precise wording of an Act of Parliament, or to refer an adversary to an authority that will convince him. Sometimes the quoting of all material sections of an Act of Parliament, with brief notes in small print, a method commonly adopted in legal works for the use of lawyers, will give quite as clear an exposition of the law as a paraphrase or summary of it, and one less likely to omit matters which occasionally, though perhaps not often, it may be useful to know. As an example of what we mean we may refer to a brief summary of the position of the person known as the "conscientious objector" to vaccination at p. 42 of the little book before us. It seems to us to contain little more than is known already to most people, whether medical men, lawyers, or parents. Quotation of Section 2 of the Vaccination Act of 1898 would have shown that the unwilling parent before he is exempt from penalties has not only to satisfy the magistrates specified that he conscientiously believes that vaccination would be prejudicial to the health of the child, but also to deliver within seven days to the vaccination officer for the district a certificate by such justices or magistrates of such conscientious objection. We may have overlooked reference to this delivery of the certificate to the vaccination officer in the perusal of the work before us, but reference to the index does not enable us to discover it, although the duties of the vaccination officer (a layman) as well as those of the public vaccinator (a medical man) are treated of. Again, to take an example at random of a case in which a public vaccinator might desire to ascertain his duties, we do not recall, nor do we find by reference to Dr. Greenwood's index, any mention of what is to occur where a child has been successfully vaccinated by an unqualified person and the parent seeks the certificate from the public vaccinator that will exempt him from prosecution. This, we believe, is regulated by the seventh and twelfth sections of the Vaccination Act of 1871, the public vaccinator giving the certificate if he chooses, but not being compelled to do so, and being able in such a case to make his own terms as to the payment of a fee for the certificate by the parent who asks for it. We are quite aware that it is possible to overload a handbook with learning and with over-full quotation from Acts of Parliament and Orders, but at the same time in dealing with vaccination we have to bear in mind that where legal proceedings are taken to enforce it defences of a technical description are very frequently successfully raised by legal practitioners who have the technical duties of the public vaccinator and the vaccination officer at their fingers' ends, and who are ready to take advantage of the smallest technical omission or mistake on the part of anyone connected with the prosecution. It is as well, therefore, that those who have to do with the carrying out of the law of vaccination should be fully informed as to technical points and should have them constantly and clearly before their eyes. The medical practitioner who wishes to become a district medical officer, or workhouse medical officer, or public vaccinator will, however, find a good deal that he may wish to know explained by Dr. Greenwood and will be able further to study in the appendices at the end of Dr. Greenwood's work forms of contract such as will be used by him and by the guardians with whom he agrees to fulfil his duties; he will also if he be, or intends to become, a public vaccinator, find some general remarks and suggestions, compiled at the request of the Poor-law Medical Officers' Association by Dr. A. E. Cope, which, while not forming part of the law relating to his office, may be of use to him in his performance of its duties.

Fractures. By CARL BECK, M.D., Visiting Surgeon to the New York German Poliklinik, and formerly Professor of Surgery in the New York School of Clinical Medicine. With 178 Illustrations. London and Philadelphia: W. B. Saunders and Co. 1901. Pp. 327. Price 15*s.*

THIS excellently got up treatise on fractures is dedicated to Professor Wilhelm Conrad Roentgen, "without whose discovery," says the dedication, "much of this book could not have been written." We may go further and say that the discovery of the x rays was the reason obviously of writing the book. The sections of our surgical manuals dealing with the diagnosis and treatment of fractures and dislocations which were written before Roentgen's valuable discovery were necessarily illustrated largely from the cadaver. Displacements of fragments, if fairly gross, can be ascertained by sight or palpation; in many fractures obvious deformities are present, their reason being very generally furnished by the muscular attachments; while in other fractures pain in certain regions and motional disabilities of certain sorts are characteristic. Before the discovery of the x rays surgical handbooks could only deal with the diagnosis of fractures as illustrated in the experience of their authors by these different signs and symptoms. Fractures and dislocations were generally discussed together, the aim of the association being differential diagnosis, and anatomical proofs being furnished from the dissection-room in proof of the conditions that were supposed to be existent. But the x rays in many instances enable the surgeon, familiar with the manipulation of the apparatus, to detect exactly what fracture is present and to deduce the cause of any deformity. The diagnosis that was wont to be a matter of doubt, only to be arrived at after the elimination of several, even of many, alternatives, may now be made without a possibility of error in a few minutes. It is from this improved surgical position that Professor Beck writes his handbook on fractures and the result is a very interesting work, though we doubt if many surgeons have found skiagraphy quite such an infallible finger-post to diagnosis as he has found it. The accurate recognition, for example, of fractures of the pelvis or of the base of the skull is not, in our opinion, much helped by the x rays. In each set of fractures it is occasionally easy to understand exactly what injury is present without recourse to any but the slightest manipulation, but we very much doubt if the x rays could be invariably depended upon to give the differentiation between the various lesions—fractures, dislocations, and simple contusions—that may occur about the hip-joint. Professor Beck admits that fractures of the base of the skull are still with difficulty demonstrated, and, for our part, we have never seen any skiagrams which illustrated the condition at all convincingly.

The book is a useful adjunct to treatises upon general surgery, and while it is intended to show that Roentgen's discovery created an epoch it really shows that the work of former observers has been so careful that many generations of surgeons have treated fractures with a perfect knowledge of the conditions although they were unable to avail themselves of skiagraphy in proof of their surgical faith. The illustrations are beautiful and we assume that the original skiagrams of which they are reproductions have not been unduly touched up.

Manual of Diseases of the Ear, including those of the Nose and Throat in Relation to the Ear, for the Use of Students and Practitioners of Medicine. By THOMAS BARR, M.D. Glasg., Lecturer on Diseases of the Ear, Glasgow University; Senior Surgeon to Glasgow Hospital for Diseases of the Ear, &c. Third edition, revised, and partially rewritten. With 236 Illustrations. Glasgow: James Maclehose and Sons. 1901. Pp. 454. Price 12*s.* 6*d.* net.

THIS valuable work has passed through an honourable probation, and has established itself in the forefront of text-books on the ear. Dr. Barr distributes the anatomical portion of the text through his work, instead of making it a separate part. This arrangement has the advantage of preparing the student for a consideration of diseased conditions with the normal state of each part fresh in his memory. We think that in no other text-book on diseases of the ear will such a clear and useful description of the more severe intracranial complications of aural suppuration be found as that given by Dr. Barr. The chapters devoted to the consideration of nasal and naso-pharyngeal affections are kept admirably within due limits, all extraneous matter being omitted. The above are but two points in a work that is of the highest order throughout, though we may perhaps take exception to the introduction of illustrative cases which we believe is not helpful to the student and adds unnecessary length to the book. Dr. Barr is to be congratulated on his manual; it is thorough, and will be found invaluable to those for whom it is written—students and practitioners.

The Asphyxial Factor in Anæsthesia, and other Essays. By H. BELLAMY GARDNER, M.R.C.S. Eng., L.R.C.P. Lond. London: Baillière, Tindall, and Cox. 1901. Pp. 63. Price 3*s.* net.

THE first essay gives the title to this little book. It presents the author's views upon the undesirable symptoms arising when, through faulty administration of the anæsthetic, the patient does not obtain sufficient oxygen. The author's personal experience appears to agree with that of most other writers upon this well-worn subject. Students will no doubt find the rules laid down useful. For a wider circle of readers the omission of all reference to the scientific work which has been done from the time of Bichât and Reid down to the present militates against the value of the essay. The paper dealing with nitrous oxide gas given with oxygen in general surgery is better written and of interest. We gather that this mixture has not proved of so much value for cases lasting over a few minutes as it has done in dental surgery. The remaining part of the book does not present any very novel features. The essays as a whole are a meritorious effort to enforce the necessity for attention to detail and the appreciation of dangers which lurk in the careless use of anæsthetics. They show that Mr. Gardner has carefully studied his cases and has arrived at his conclusions as a result. From the surgeon's point of view we cannot endorse his experience that the best position for the patient for whom an empyema thoracis has to be dealt with is "almost on his face, with the diseased half of the chest lowermost." The use of the expression "stages of anæsthesia" for "degree of narcosis" is, as Snow pointed out, objectionable and misleading. Mr. Gardner is a painstaking and intelligent worker in his field of medical science and has produced a book which will prove useful to the student and tyro in anæsthetics.

Oral Sepsis as a Cause of "Septic Gastritis," "Toxic Neuritis," and other Septic Conditions. With Illustrative Cases. By WILLIAM HUNTER, M.D. Edin., F.R.C.P. Lond., Senior Assistant Physician to the London Fever Hospital; Physician to the Electrical Department, Joint Lecturer on Practical Medicine and Pathological Curator, late Pathologist, Charing-cross Hospital. London: Cassell and Co., Limited. 1901. Pp. 30.

THE object of this book is to direct attention to the importance of septic conditions of the mouth as a cause of disease. Dr. Hunter has given considerable attention to this subject, and has succeeded in showing that certain general conditions, such as pernicious anæmia and gastritis, are at times traceable to infection from the mouth Dr. Hunter considers that he has met with cases of "neuritis" arising from septic oral conditions, but the examples which he quotes are not conclusive. The book, however, is instructive and is worthy of perusal by all medical and dental practitioners.

A Handbook of Materia Medica, Pharmacy, and Therapeutics. By SAMUEL O L. POTTER, A.M., M.D. Jefferson Med. Coll., Phil., M.R.C.P. Lond., formerly Professor of Medicine, Cooper College, San Francisco. Eighth edition, revised and enlarged. London: Rebman, Limited. 1901. Pp. 950, 8vo. Price 21*s*. net.

WE are glad to welcome another edition—the eighth—of this valuable work. It has been closely criticised and thoroughly revised, and much new matter has been added as a result of two years' medical practice in the tropical Philippines. We feel that we may recommend the book to British practitioners with the utmost confidence, though, of course, they must bear in mind that the word "official" throughout refers to the United States Pharmacopœia and not to our own.

The arrangement of the matter is in some respects unique, and will be found to make reference an easy matter. An elaborate classification of medicines is given in the first part of the book, and the definitions of each heading are thoroughly lucid and scientific. In dealing with individual drugs the physical properties and chemical constituents are first briefly described, a list of the official preparations follows, while important unofficial preparations are not forgotten. Next the physiological action in each case is described, and the therapeutics proper follow. The effects of toxic doses and physiological and empirical antidotes are also given. It will be seen that the work is nothing if not thorough. The second part of the book, devoted to "Pharmacy," is also valuable and will be found to contain an enormous amount of detailed information and good advice to the student on the writing of prescriptions.

The third part is entitled "Special Therapeutics," and in its compilation a very large number of the works of accepted authorities have been laid under contribution. It forms a very complete and reliable index of treatment which will be a godsend to many a busy practitioner who has no time to wade through the copious literature that accompanies each new drug into the market. A long list of the supposed or already discovered ingredients of various quack preparations is given at the end of the book, together with some tables of differential medical diagnosis and a most carefully-prepared index. We quite agree with the author that, however excellent a book, its value as a work of reference is small unless it possesses a thoroughly good index. But the tables of medical diagnosis seem to be hardly in place in this work on materia medica, and in their presence lies the one and only objection to the book, which is well written, well arranged, and printed on good paper.

JOURNALS AND MAGAZINES.

Scottish Medical and Surgical Journal.—The opening article in the May number is a description of the Clinical Features of Myasthenia Gravis by Dr. Edwin Bramwell of Edinburgh, who has examined nine cases of the disease. He states that up to the present time only some 80, or possibly 90, cases have been reported. In a paper on Twin Pregnancy Dr. Alexander MacLennan of Glasgow says that a diagnosis of twins can readily be made by abdominal examination. Apart from the size of the abdomen, which may be excessive, it is from palpation that the presence of twins can be most easily recognised. The shape of the uterus may be unusual. There may be a groove at the fundus, as has been pointed out by Kuncke, or the conformation of the uterus may be irregular. Fœtal movements, produced by more than one set of limbs and felt at different places, are also more or less characteristic. Two areas of maximum intensity of the heart sounds, separated by an area of silence, point towards there being more than one ovum; hearing two fœtal hearts having different rhythms is conclusive evidence. Dr. J. C. Dunlop of Edinburgh writes on the Food Requirements of Varying Labour, his data being obtained from prison experience. He considers that for moderate labour a diet of 3500 calories is insufficient, one of 3900 is excessive, and one of 3700 is sufficient without being excessive. Dr. H. O. Nicholson of Edinburgh contributes an article on the Sphygmographic Appearances of the Pulse in Infancy.

The Journal of Physiology. Edited by Sir MICHAEL FOSTER, K.C.B., F.R.S., and J. N. LANGLEY, F.R.S. Vol. xxvi., No. 5. London: C. J. Clay and Sons. April 24th, 1901. Price 7*s*.—The contents of this number of the Journal of Physiology are: 1. Galvanotaxis and Chemotaxis of Ciliate Infusoria, by H. H. Dale, B.A., Coutts-Trotter Student and Scholar of Trinity College, Cambridge. Part I. with 49 figures in the text. 2. The Action of Ether and Chloroform on the Cerebral and Spinal Neurons of Dogs, by Hamilton Wright, M.D., Director of the Pathological Institute, Federated Malay States. Supplementary papers: 3. On Dilatation of the Pupil from Stimulation of the Cortex Cerebri, by J. Herbert Parsons, B.Sc., Research Scholar of the British Medical Association, with two figures in the text 4. The Physiological Properties of the Muscle of Echidna Hystrix, by H. G. Chapman, M.B., B.S. (Melbourne), with eight figures in the text. 5. A Further Inquiry into the Supposed Existence of Cerebral Vaso-motor Nerves, by Leonard Hill, F.R.S., and J. J. R. Macleod, M.B., with 11 figures in the text. Lastly, the Proceedings of the Physiological Society on Feb. 12th and March 16th are given.

Mercy and Truth.—Dr. Minnie Gomery writes on the prospects of medical work at Islamabad in Kashmir. Dr. T. L. Pennell has an illustrated article on the Bannu Medical Mission in 1900. Bannu is in the Punjab. In the hospital there were 607 in-patients with 18 deaths. In the out-patient department 43,100 visits were made.

Friend of China.—The April number deals chiefly with the annual meeting of the Society for the Suppression of the Opium Trade held in Exeter Hall on Feb. 26th. The publishers are Messrs. P. S. King and Son, Westminster.

THE LANCET.

LONDON: SATURDAY, MAY 11, 1901.

Enteric Fever and Food-supply.

WE are always learning of new channels by which the virus of the acute infectious diseases may be conveyed to man. Before the majority of us were born it was a well-recognised fact that water was a frequent vehicle of infection. Later it was found that milk served to disseminate enteric fever, then it became clear that a similar charge could be brought against ice-creams and shell-fish; and now we are presented by the London County Council with a report in which fried fish is accused of behaving in the same manner. The report deserves careful consideration, not only on account of the extreme importance of the subject-matter concerned, but because the investigation which has led to this conclusion has been made by a competent observer. The report relates to three outbreaks of enteric fever occurring respectively in September, 1900, in Southwark, and in the latter part of August and in September in Lambeth and in Kensal Town. The Southwark outbreak furnishes the most valuable material for etiological investigation because a larger number of persons were attacked and because the social condition of the persons living in the infected area was more uniformly the same throughout the whole of it than in the other areas. This outbreak, therefore, best deserves consideration, for the extent to which Dr. W. H. HAMER'S conclusions concerning its cause are accepted must govern the view that is entertained of the soundness of his conclusions as to the other outbreaks.

In Southwark in the course of three weeks about 100 people were attacked with enteric fever. They were all poor people, living and eating as poor persons do, and subject to that amount of prevalence of enteric fever which usually manifests itself, especially in the poor districts of London, at that period of the year. The suddenness of the outbreak and the rapidity with which the residents of a small and fairly compact area were attacked undoubtedly suggested that the disease was caused by an infected food-supply, and Dr. HAMER'S inquiries were consequently directed to determining whether the cause of the attack of this considerable number of people was water, milk, ice-creams, or shell-fish. The facts ascertained, however, completely failed to show that these possible causes had been operative and hence attention had to be directed to other possibilities. Among these was the excellent habit of the younger people of resorting to public baths, but examination of the relation between bathing and the incidence of the disease failed to show any association. Lastly, Dr. HAMER was led to make detailed inquiry into the relation between the incidence of the disease and the consumption of fried fish from a particular shop, and here he found so close a connexion that this relationship was fully investigated. It then became evident that there was a parallelism between the consumption of fried fish and attack by enteric fever that is not explicable on any other hypothesis than that the two stand in the same relation as cause and effect; for not only did people visiting the fried fish shop suffer out of all proportion to others, but persons in their own homes to whom the fish was brought suffered, while other members of the same families who did not eat fish escaped. Dr. HAMER has not professed to account for every single case of enteric fever which has occurred in the affected area on this hypothesis. Some small number of "secondary cases" occurred, caused no doubt by an antecedent case in their homes, itself possibly due to infection from fish. Again, a much smaller number of cases occurred for which explanation was wanting, but these were not more numerous than might well have arisen without any cause other than those which govern the autumnal prevalence of enteric fever in the London population. Indeed, Dr. HAMER'S hypothesis must be accepted or the method of statement of the circumstances of the case contains some fallacy. In the main it is an arithmetical statement of the incidence of the disease upon two populations living under identically the same conditions, except in respect of the habit of eating fried fish. It is the method which was adopted by Sir JOHN SIMON in his investigation of the cause of cholera in London in the middle of the last century, and in other similar circumstances it has been accepted as satisfactory There is no reason for assuming that it is not completely trustworthy when applied by Dr. HAMER to prove the existence of a new method by which typhoid fever can be spread. We note that Mr. SHIRLEY MURPHY in his prefatory remarks has submitted Dr. HAMER'S report to a definite arithmetical test. He has taken a fixed period for the statement of the proportionate incidence of the disease upon the two populations we have mentioned and has thus brought out clearly the vast differences between the liability of those two populations to be attacked. The reader of the report will observe that, setting aside the few cases which Dr. HAMER had, for reasons stated in his report, not regarded as belonging to the "special outbreak," the only persons who were attacked were the fish eaters.

The circumstances of the Lambeth outbreak differ somewhat from those of the Southwark one, but this appears to be explicable on the ground that the population was less homogeneous, and hence the distribution of the cases was less compact than in Southwark. It is, however, noteworthy that the disease was limited to fried-fish eaters. In Kensal Town the conclusion is less positive, and perhaps nothing stronger can be said in support of the fish hypothesis in these cases than that it affords a possible explanation of them. We observe that neither Dr. HAMER nor Mr. SHIRLEY MURPHY is disposed to lay more stress upon the hypothesis than this. Now that attention has been directly drawn to this subject it is to be hoped that medical officers of health will bear in mind Dr. HAMER'S conclusions whenever they are concerned with outbreaks of typhoid fever or cholera for which other explanation is not forthcoming. It will be recollected that in 1893 certain persons, attacked with choleraic symptoms in London, had eaten fish received from the east coast. Dr. Hamer's report will serve to direct further attention to this question and it may be that a more intimate relationship between fish-eating and choleraic disease will be later established. The suggestion of this relationship undoubtedly demands that inquiry should be directed in ascertaining the extent to which frying or other culinary treatment destroys organisms in the fish. This, as Mr. Shirley Murphy points out, is matter for experiment. It is probable that the surface of the fish and material with which the fish is cooked are sterilised by cooking, but even in respect of this there is no certainty.

The Registrar-General's Annual Report.

The Registrar-General's sixty-second annual report has recently been published as a blue-book. It relates to the year 1899, and, like its predecessors, it is a highly important and interesting document; so much so, indeed, that we cannot forbear expressing regret that its preparation should have taken more than a year and a quarter after the close of the period to which it refers. The populations used throughout the book are avowedly estimated on the hypothesis that the rate of increase since 1891 has been the same as it is known to have been during the previous inter-censal period. At this distance, however, from the 1891 census it is very questionable whether population estimates so obtained are generally to be relied on; and we had almost expressed a wish that as the new census has already been taken the revised figures could have been used in calculating the rates of marriage, birth, and death for the present report. This, however, would have still further delayed the production of the report and to that extent would have diminished the value of the information it contains.

The continued prosperity of the country is attested by the marriage-rate, which in 1899 was higher than in any year since 1876, the rate having steadily increased to its present level ever since the year 1893. The birth-rate in 1899 was only 29·3 per 1000 and was the lowest on record, being below the mean rate in the previous 10 years by 1·0 per 1000. The death-rate was 18·3 per 1000 and was slightly below the decennial average rate. The death-rates for the several counties are given in the report. It must, however, be borne in mind that, inasmuch as those rates are based on purely provisional estimates of population, inferences from them are likely to need modification after the estimates have been revised on the basis of the 1901 census. In discussing the question of infantile mortality we are on firmer ground, and as in this case we are able to eliminate the errors inseparable from estimates of population the rates may be accepted as fairly trustworthy. In the year 1899 the proportion of deaths of infants under one year of age to registered births was 163 per 1000, which is somewhat higher than the mean proportion in the previous 10 years. In registration counties infantile mortality ranged from 106 in Rutlandshire and 108 in Herefordshire, to 186 in South Wales and 191 in Lancashire.

Among common infectious diseases scarlet fever, measles, and whooping-cough were much less fatal in 1899 than the average, the disease last mentioned showing a lower fatality than in any previous year on record. Diphtheria and diarrhœa, however, were more fatal than usual, whilst the mortality from enteric fever in 1899 has only once been exceeded in any year since 1884. The section of this report which deals with the local incidence of enteric fever is very complete and gives evidence of thoughtful preparation. In view of the well-known connexion between insanitary conditions and the prevalence of that disease we may be certain that this portion of the report will receive the consideration of the Local Government Board. The continued increase of diphtheria in recent years is once more adverted to in the present report, more than 10,000 deaths having been caused by it in the year under notice. The local incidence of this disease is here specially considered, and a table is given showing the mortality to which it gives rise in the several counties of England and Wales. In the year 1899 the mortality from diphtheria and croup did not exceed 98 per million of the population in Oxfordshire and 110 per million in Cornwall, whilst it amounted to 658 per million in Monmouthshire, 703 per million in Leicestershire, and 837 per million in South Wales. During the earlier years of life this disease is enormously more fatal than at subsequent ages, as many as 64 per cent. of the total deaths being those of children under the age of five years. In proportion to population the deaths from diarrhœal diseases were more numerous in 1899 than in any year since 1893. In addition to 31,000 deaths certified as from diarrhœa, more than 19,000 deaths were referred to enteritis or gastro-enteritis. Etiologically, all the infantile deaths referred to so called "gastro-enteritis" and a large share of those referred to "enteritis" should, doubtless, be considered as cases of epidemic diarrhœa. The fact that the age incidence of these maladies closely corresponds with that of epidemic diarrhœa strongly supports this view. It is much to be desired that in certifying deaths from epidemic diarrhœa medical practitioners should adopt the recommendation of the Royal College of Physicians of London, invariably using this term, or the suggested alternatives "epidemic enteritis" or "zymotic enteritis," and discontinuing the use of such terms as "gastro-enteritis," "muco-enteritis," and "gastric catarrh."

Among constitutional diseases both cancer and diabetes showed in 1899 a fatality in excess of the average, but tuberculous diseases had not exacted so heavy a toll. From cancer the mortality among males was equal to a rate of 672 per million, and among females to a rate of 977 per million, both these rates being the highest on record Out of a total of 26,325 deaths from malignant disease 736 were attributed in the certificates to scirrhus, 1293 to epithelioma, and 1706 to sarcoma—the remainder, amounting to 86 per cent. of the whole, being referred to carcinoma or malignant disease simply, without further discrimination as to kind. The mortality from phthisis is still happily on the decline; as compared with the respective averages, the male rate in 1899 was lower by 5 per cent and the female rate by 12 per cent. In both sexes the reduction in mortality was greatest at ages below 35 years; at the higher ages either the reduction was small or else there was an actual increase as compared with the average. Tuberculous meningitis accounted for not fewer than 6449 deaths in the year under notice. Most of these deaths were those of infants; among male children this disease was responsible for a death-rate of 1326 per million living under five years of age, and among female children for a rate of 1046 per million. Both these rates are, however, below the average. The disproportionate liability of male children to tuberculous meningitis is remarkable, male children under five years of age dying from this disease faster than female children by no less than 20 per cent.

Having regard to the remarks which we have recently felt called upon to make on the subject of death certification we are pleased to note that the resources of the General Register Office are being utilised with the object of ascertaining the extent to which the law is being evaded. We have repeatedly pointed out that although, taking England and Wales as a whole, the proportion of deaths uncertified by medical men does not exceed 2 per cent., nevertheless there are many districts (Spennymoor in Durham, for example) where the proportion of uncertified deaths is so high as to constitute a public scandal. In the report before us we are glad to find a table showing the registration districts in which the highest proportions of uncertified deaths occur. From this we find that in the year 1899 there were 55 districts which showed in every case a percentage of uncertified deaths amounting to more than double, and in one instance to more than nine times, the average proportion in England and Wales generally.

The Motor-Car Exhibition.

AN excellent insight into the progress of the motor-car and of its industry could be gained at the Royal Agricultural Hall this week (May 4th to 11th) on the occasion of the motor-car exhibition held there under the auspices of the Auto-mobile Club. It must be admitted, we think, that although advances in the structure of the motor-car are announced day by day and there is little doubt that the actually practicable motor will at length be realised, yet in the main progress is slow. Attention appears to be directed equally to electricity, steam, and petroleum as the motive power. Undoubtedly "petrol" is the favourite source of energy, while for many practical purposes, at any rate for the present, electricity is inadmissible. Some excellent motor-cars are now being made, however, which are driven by steam, and not the least advantages of these cars are that they are much less noisy than the petroleum-driven car, there is decidedly less vibration, and they are free from unpleasant smell. Apparently steam motors admit also of a greater simplicity and neatness of design than does the petroleum motor. But the requirements of a really useful motor are somewhat exacting. One important requirement (as, for example, in the case of the medical man) is that it should be ready for use without much preparation. The electric car requires practically no preliminary attention, the petrol-car requires some attention before a start can be made, while the steam car necessarily involves a good deal of time before it can be started. The steam-car, however, is evidently an increasing favourite, although by far the majority of cars are driven by petroleum. While it is true to some extent that petroleum is a manageable force, yet it is only so by virtue of the fact that it forms an explosive mixture with air. The petroleum must be uniformly vapourised and the resulting vapour mixed with air and the resulting mixture ignited before the energy of the petroleum is obtained as a propelling force. All this means an infinite amount of control at various points in the structure of the motor. Steam, on the other hand, is more easily under control because it is an expansive force, petroleum giving, so to speak, a series of jerks from results of explosions instead of a steady elastic pressure Until a way is found of storing electricity on a better plan than is at present available—that is, by the use of very weighty accumulators the capacity of which is necessarily limited—electricity cannot become a practical source of propulsion for the motor-car. At most not more than a 30 to 40 mile charge of battery power can be carried and this means a great weight, and then there is the inconvenience of the ever-present doubt as to whether the charge will serve, and there may be no re-charging station within reach. Sooner or later, however, the motor-car is sure to become a simpler and handier means of propulsion and more adapted for common every-day purposes than it is at the present time. The enormous attention that is being directed by a large and highly skilled body of engineering men towards the improvements of the motor-car is practically certain to be crowned with success in the near future. This reflection doubtless restrains many from possessing a motor-car, for rapid improvements may come at any moment. As it is, the improvements that take place every year are certainly noteworthy, all tending to the evolution at last of a really satisfactory motor-car. The relative merits of the different kinds of motors could easily be discussed at this exhibition, and a spacious arena was provided in which trial trips could be made. The hall was well-nigh intolerable, however, from the nauseating smell of escaped and partially burnt "petrol." One satisfactory feature of the exhibition was the fact that many of the improvements are due to English skill and ingenuity and a great many of the motors were entirely British made. Another point worth mentioning also is that the prices of the motor-car are evidently being gradually reduced; they are certainly much lower in price than in previous years, a really useful motor-car with accommodation for two persons costing now not more than 150 guineas The exhibition was of the most encouraging kind and undoubtedly teaches that amongst the industries of this country motor-car manufacture will have a very important place, serving to maintain a brisk demand for steel and a large field for foundry labour. The growth of the industry in the Coventry district and in many other provincial towns also is already very great, and there is little doubt that as the motor-car is further improved so *pari passu* the industry will expand. The time is sure to come when the production of motor-cars will be as large and as popular as was the case with cycles some few years ago. There is a peculiar and special interest therefore connected with the annual exhibition of the motor-car industry.

Annotations.

"Ne quid nimis."

THE LATE HONOURS GAZETTE.

THE *Army and Navy Gazette* of May 4th, referring to our remarks which "as in duty bound commented rather severely on the omission of the name of the Director-General of the Army Medical Service from the Honours *Gazette*," thinks that THE LANCET went a little too far in treating the honours conferred on Sir H. Brackenbury and Sir C. Mansfield Clarke as Director-General of Ordnance and Quartermaster-General at home as accentuating the omission of the name of Surgeon-General J. Jameson from the list. Our service contemporary adds: "How it can be supposed that the Army Medical Service must be unpopular in the eyes of its officers and of the profession on account of the omission is beyond our comprehension. It surely is not 'ignoring the Director-General' to give the G.C.B. to these two senior officers?" Admitting the force and truth of the remarks which follow in the article from which we are quoting about the relative value and importance which the world attaches to the work of its soldiers and sailors as compared with that of its physicians and surgeons we have nevertheless to confess that they seem to us wide of the mark. As a matter of fact, our comments simply stated the opinion which was generally entertained and had been freely expressed. That the Director-General of Ordnance and the Quartermaster-General thoroughly deserved their G.C.B.'s we never questioned and do not doubt, nor did it ever enter our minds to conceive that the Director-General of the Army Medical Service would have had that particular honour conferred upon him. Our point was that while Sir Henry Brackenbury and Sir C. Mansfield Clarke had been selected for reward in recognition of the services which they had performed in this country during the present war the name of the head of another department in this country, that of the Medical Service, on whom the war must have entailed an immense amount of labour and responsibility, was altogether omitted from the *Gazette*. The circumstance surely does tend to make the name of that official more conspicuous by its absence in the list than it would otherwise have been, and it is natural, indeed unavoidable, to notice and to seek for an explanation of such an occurrence. That was our point, and we are glad to see that the *Broad Arrow* looks at the matter with the same eye as ourselves.

THE EDINBURGH UNIVERSITY CLUB: LORD LISTER ON MEDICAL EXAMINATIONS.

THE Edinburgh University Club held a dinner at the Holborn Restaurant on May 1st. Lord Lister occupied the chair as President of the club, and he was supported by, among others, Sir James Reid, Lord Justice Stirling, Dr. Ferrier, Dr. Farquharson, M.P., and Sir Thomas Barlow. The company was large and everything went to show that the club is in a satisfactory state despite the great losses, very feelingly alluded to by the President, in recent months of two important members—the late Dr. J. B. Potter and the late secretary, Dr. Leslie Ogilvie. The music of the evening was supplied by Mr. William Nicholl who was frequently encored. In responding to the toast of "The Naval and Military Forces," proposed by Dr. Farquharson, Deputy Surgeon-General W. G. Don vindicated the military services, dwelling much on the actually new and unprecedented conditions of the war in South Africa. The feature of the evening was the speech by Lord Lister, revealing, as many previous speeches have done, his affection for Edinburgh and his gratitude for the influence of the Edinburgh University School, and especially of Mr. Syme's practice and character, on his mind. Lord Lister went to Edinburgh as Mr. Syme's house surgeon. Though, he said, he was not in the ordinary sense of the word a student of the University he received lessons there which were as valuable as any in his student career, and this in spite of the absence of many advantages which now existed in the form of laboratories of all kinds and a new infirmary. Lord Lister made some significant remarks as to recent changes in the examination system of the University and in the remuneration of professors. Formerly the candidates for graduation were examined solely by their professors and Lord Lister boldly intimated that in his opinion if the choice lay between examination of the student by his own teachers and by strangers he would unhesitatingly prefer the former on the ground that the teacher was likely to be the best judge of the real merits and the real knowledge of the student. The teacher's presence, with the help of an assessor, was perhaps the best guarantee for the avoidance of undue leniency on the one hand and what was probably a more serious fault—undue severity—on the other hand; the more so considering the enormous range and number of subjects which no teacher could cover entirely. Lord Lister used to say that it was impossible to teach the whole subject of chemistry; now it was equally true to say that it was impossible to overtake the whole range of surgery in any practicable course All the teacher could do was to teach sound principles with such materials as he could command. To subject the student to the examination of perfect strangers was a grievous injustice, and the student was tempted to study by cram to meet the views of various possible examiners. Lord Lister criticised with some disapproval recent changes in the payment of professors, maintaining that it should vary in proportion to their work and fitness. Referring to the club itself he thought that it maintained its health and prestige. It was most valuable in reviving old friendships and originating new ones and in promoting reverence and affection for the *alma mater*. Dr. Ferrier, in proposing the health of the President, said that no man of medical science had attained such wide renown or seen in his lifetime the fruit of his labours to the same extent as had Lord Lister. None had had higher honours conferred upon him or had borne them with more modesty. Lord Lister was more than great—he was loved. He told an anecdote of his humanity. In prescribing the actual cautery for one of Dr. Ferrier's patients Lord Lister expressed regret for the pain that it would cause. The patient said that he could submit to any pain which Lord Lister thought fit to order. "We are all proud of him," Dr. Ferrier added, and the toast was drunk with musical honours.

LAUGHTER AND LONG LIFE.

IT may be that some enthusiastic and laborious German statistician has already accumulated figures bearing upon the question of length of life and its relation to the enjoyment thereof; if so, we are unacquainted with his results and yet have a very decided notion that people who enjoy life, cheerful people, are also those to whom longest life is given. Commonplace though this sounds, there is no truth more commonly ignored in actual every-day existence. "Oh, yes, of course, worry shortens life and the contented people live to be old," we are all ready to say, and yet how many people recognise the duty of cheerfulness? Most persons will declare that if a man is not naturally cheerful he cannot make himself so. Yet this is far from being the case and there is many a man who is at present a weary burden to his relatives, miserable through the carking care of some bodily ailment, perhaps, or some worldly misfortune, who, if he had grown up into the idea.

that to be cheerful under all circumstances was one of the first duties of life, might still see a pleasant enough world around him Thackeray truly remarked that the world is for each of us much as we show ourselves to the world If we face it with a cheery acceptance we find the world fairly full of cheerful people glad to see us If we snarl at it and abuse it we may be sure of abuse in return The discontented worries of a morose person may very likely shorten his days and the general justice of nature's arrangement provides that his early departure should entail no long regrets On the other hand, the man who can laugh keeps his health and his friends are glad to keep him To the perfectly healthy laughter comes often Too commonly, though, as childhood is left behind the habit fails, and a half smile is the best that visits the thought lined mouth of a modern man or woman People become more and more burdened with the accumulations of knowledge and with the weighing responsibilities of life, but they should still spare time to laugh Let them never forget, moreover, and let it be a medical man's practice to remind them that "a smile sits ever serene upon the face of Wisdom"

THE KING AND THE CORONERS

AMONG the deputations received by His Majesty the King on May 3rd at St James's Palace was one from the coroners of England The deputation, which consisted of Mr Sidney Hacker, coroner for Devon, Mr Henry John Robinson, coroner for Lancashire, Dr Danford Thomas, coroner for Central London and Central Middlesex, Dr Wynn Westcott, coroner for North East London, Mr Arthur Langham, the treasurer of the Coroners' Society, and Mr Walter Schröder, secretary of the London Coroners' Association, was most graciously received in the Throne Room The President, Mr Hacker, presented an illuminated address, congratulating His Majesty upon his accession to the throne and giving an assurance of the loyalty and devotion to the Crown which the coroners, as His Majesty's own personal officers, ever feel towards the sovereign Each of the gentlemen present was introduced to the King who made the following reply —

"I thank you for your loyal and dutiful address and for your expressions of attachment to my Throne and to my Consort and my Family I appreciate the cordial sympathy which you express with our own and the nation's grief at the loss of my beloved mother, and I am deeply gratified *by your assurances of faithful service* to the Crown in the ancient and honourable office which you hold"

A similar deputation was received by Her Majesty Queen Victoria in July, 1897, on the occasion of the Diamond Jubilee

A MILITANT BACTERIOLOGIST.

WE regret to announce the death, at the early age of 40 years, of Professor P Kohlstock, which occurred at Tientsin on April 15th in consequence of heart failure following upon an attack of enteric fever During Professor Robert Koch's sojourn in South Africa for the purpose of investigating and combating the rinderpest Dr Kohlstock was his first assistant and wrote all the more important despatches and reports bearing upon rinderpest In Germany, however, his name is associated with several other, by no means less important, scientific adventures; indeed, he may be said to have been an adventurer in the truest sense of the word, for at a very early period of his life he voluntarily joined Wissmann's column as a leading member of his personal staff and took a prominent part in suppressing a number of sudden insurrections of the Arabs So highly did he distinguish himself in this respect that soon afterwards he was directed by the German Government to organise and to conduct the sanitary service in its East African colonies He accomplished this task and remained there till 1890, when he returned to Berlin and began some special bacteriological studies under the superintendence of Professor Koch In the following year the Seminar für Orientalische Sprachen was founded in Berlin, and Dr Kohlstock for some years lectured there at intervals on tropical hygiene To his connexion as a teacher with this institute he mainly owed the title of Professor which was bestowed upon him by the German Government in 1898 Nor were his interest and his activity confined to the latter work alone, indeed, his subsequent appointment as a scientific adviser to the German Foreign Office in matters bearing upon tropical hygiene occupied a great deal of his time and brought him into public prominence, with the result that he was soon approached by several private colonial associations to accept a post similar in character to that which he held in connexion with the Foreign Office Circumstances, however, led him to refuse these lucrative overtures, but, on the other hand, it is stated that on more than one occasion he rendered valuable practical assistance in matters relating to colonial enterprise to the leading colonial companies in Germany His name, however, was still more before the German public during the great cholera epidemic of 1893 He was then called upon to undertake the control of some of the main seaports and he fulfilled this task with conspicuous ability His scientific and literary contributions are numerous, but they are almost entirely confined to the domain of bacteriological and clinical research in connexion with malaria and yellow fever One popular book, however, which he wrote some two or three years ago is likely to remain of permanent importance—namely, his "Aerztlicher Rathgeber für Ost-Afrika und andere Tropische Malaria Gegenden" (Medical Guide for East Africa and other Tropical Malarial Regions) Lastly, in conjunction with Professor Koch he originated the scheme for the establishment of the Deutsche Anstalt für Tropen Hygiene (German Institution for Tropical Hygiene) which was recently erected in Hamburg

THE ASSOCIATION OF OBESITY WITH NARCOLEPSY

DR PAUL SAINTON of Paris contributes to the *Revue Neurologique* of March 30th last a paper on the Association of Obesity with Narcolepsy and gives an outline of the treatment proposed The torpor or somnolence of the obese is a fact of common observation, but attacks of narcolepsy—i e, of irresistible sleep—are rarer Of two cases of narcolepsy and obesity recently recorded it was found that diabetes was present in one (Robin) and albuminuria in the other (Lamacq) The following case was entirely free from any such disease or disorder, the only physical condition associated with the narcolepsy being obesity The case was that of a man, aged 43 years, a musical composer His father was gouty and his mother was subject to arthritis and eczema There was marked obesity in the grandparents The patient was thin and delicate in childhood, with an innate dislike of physical exercise He led a very regular life, was a big feeder, and at the age of 17 or 18 years began to grow fat He ate heartily of starchy and saccharine foods and drank red wine, but was not given to taking liqueurs He was a good sleeper at first, but subsequently he began to suffer from insomnia towards early morning, waking three or four times after a short sleep of two or three hours One morning he got up at six o'clock; a few minutes later he felt suddenly and irresistibly sleepy and slept for two hours During the day similar attacks of sleep occurred, and on one occasion while writing he suddenly fell asleep pen in hand These "crises" of sleeping seldom lasted more than a few seconds or minutes Sometimes when out visiting and during conversation he would suddenly fall asleep One day while descending a staircase he was suddenly overcome by sleep and rolled down the steps, sustaining a severe bruise of the forehead. Alarmed by these symptoms he decided to diminish his food with the result that he became less fat and the attacks of sleep became less frequent. But he failed to keep up the dietetic *régime* and became fat again. Later, he tried taking thyroid tablets, but these he found he could not tolerate owing to the production of tachycardia lasting several days after taking them. The attacks of narcolepsy now became more frequent and he consulted Professor Debove. He was now very fat, easily tired on exertion, and suffering from intertrigo. The urine was free from albumin, sugar, or bile, and the percentage of urea was normal. He was put on a special diet of fresh fruits, green legumes, plenty of water and of weak tea, and a dose of 10 minims of tincture of aloes after meals daily. The soup which he was allowed to take had to be free from fat. He lost his excess of fat after this and his weight, which at one time was 235 pounds, was gradually reduced to 157 pounds. His intellectual and physical vigour gradually returned, he slept naturally, and no longer had attacks of narcolepsy. Dr Sainton points out that Lamacq regards narcolepsy as not caused solely by obesity, because in two of his cases he noticed the presence of albuminuria and of enlarged tonsils respectively. The symptoms in the present case, however—viz., the association of narcolepsy with obesity uncomplicated by other conditions—and the results of treatment show that a constitutional condition characterised by slowness of tissue metabolism underlies both. Dr. Sainton thinks that this underlying condition may be due to some form of auto-intoxication, the narcoleptic attacks being due to the toxæmia affecting the brain. Suitable diet and increase of metabolism contributed to the cure of both the obesity and the narcolepsy in the present case.

THE FESTIVAL DINNER OF THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

THE festival dinner of the Royal Hospital for Diseases of the Chest, organised by the energetic secretary, Mr. John Harrold, was a decided success inasmuch as it realised £5800 of the £10,000 required for the purposes of purchasing a freehold site for the hospital, of building and furnishing a nurses' home, and of carrying on the work of the hospital. The dinner was held on Monday, May 6th, under the chairmanship of Sir T. Andros de la Rue, Bart., chairman of the hospital, at the Whitehall Rooms of the Hôtel Métropole and there was a good attendance. The toast of "His Majesty the King," proposed by the Chairman, was enthusiastically received with musical honours and the toast of "Queen Alexandra, the Duke and Duchess of Cornwall and York, and other members of the Royal Family," also proposed by the Chairman, was cordially responded to. In proposing the toast of the evening, "Success to the Hospital," the Chairman reminded his hearers that the hospital was founded by the Duke of Kent in 1814 and also that it was the first hospital in Europe founded for the study and treatment of consumption. At the present time there were about 800 in-patients treated annually, while the attendances of out-patients exceeded 26,000 annually. The reliable income of the hospital from annual subscriptions was less than one-third of the expenditure, and consequently from time to time the management got into troubled waters. The Prince of Wales's Hospital Fund Committee and the medical staff of the hospital insisted upon the imperative necessity of providing a suitable home for nurses which would cost some £7000, and £3000 were required for the ordinary work of the hospital. He concluded by asking for liberal support on the part of the charitable public. It would indeed be a pity if the remaining £4200 were not soon subscribed. The toast list included "The President, Lord Rothschild," proposed by the Hon. Claude Hay, M.P.; "The Chairman and other members of the Council," proposed by Mr. A. Wedderburn, K.C., and responded to by the Rev. G. H. Perry, M.A.; "The Medical Staff and other Honorary Officers," proposed by Colonel Makins and responded to by Dr. Philip J. Hensley; and "The Chairman," proposed by Mr. S. Hope Morley. The proceedings of the evening were enlivened by vocal and instrumental music, Miss Daisy Harrold, daughter of the secretary, making her public début with a charming rendering of a pianoforte solo, "Carmen."

THE GENERAL MEDICAL COUNCIL.

SUMMONSES have been issued for the meeting of the General Medical Council on Tuesday, June 4th, at two o'clock. The Executive Committee will, as usual, meet on the day previous. One matter of vital importance to the Council must receive early discussion. On the last day of the last session the Special Finance Committee of the Council presented a report on the financial condition of the Council which it was decided to refer to an expert in finance. The members of the Council were divided into two camps. On the one side it was asserted that the financial condition was sound, the annual deficit being too small to cause the slightest anxiety; on the other it was contended that a very serious condition of affairs existed which urgently called for reform. The point is so vitally important that the truth will have to be made clear at the first opportunity.

QUEEN VICTORIA'S NURSES' ENDOWMENT FUND.

IN THE LANCET of April 20th, 1901, p. 1152, we called attention to the special appeal to the women of the Empire for further funds permanently to endow Queen Victoria's Institute for Jubilee Nurses. The following committee, with power to add to their number, have now been appointed with the object of carrying out this project:—The Duchess of Beaufort, the Duchess of Bedford, the Duchess of Marlborough, the Duchess of Portland, the Duchess of Westminster, the Marchioness of Lansdowne, the Marchioness of Londonderry, the Dowager Countess of Shrewsbury, the Countess of Derby, Helen, Countess of Radnor, the Countess of Lonsdale, the Countess of Selborne, the Countess Roberts, Lady Lucy Hicks-Beach, Lady Aline Beaumont, Lady Hilda Brodrick, Lady Sandhurst, Baroness Burdett-Coutts, the Lady Mayoress, and Mrs. Beerbohm Tree. At a meeting of this committee, presided over by the Marchioness of Londonderry, held on April 29th at Londonderry House, Park-lane, it was decided that the wives of the Lord Lieutenants and the mayoresses of the United Kingdom should be approached and invited to identify themselves with the movement and to coöperate with Lady Londonderry's committee in carrying it out. In order that all classes, both in town and county districts, might have the opportunity of participating in the "Women's Memorial to Queen Victoria," it was also resolved that a thorough organisation should be instituted throughout the entire country. For this purpose arrangements will be made to ensure collecting cards finding their way into every village and remote hamlet, thus affording to the humblest the opportunity of subscribing their mite to the work. The present income of this institute, which for 12 years has ministered to the poorest people in the kingdom, is totally inadequate to meet the expenses, and unless the funds are greatly increased it will be impossible to keep up even the present number of nurses. To justify the council in considering the Queen's work as fairly established some 2000 nurses will be required, and to raise the establishment to this number will necessitate great efforts on the part of those interested in the work of the institute. The committee desire it to be understood that whilst contributions from those who can afford to give generously will be [illegible] 'hey equally wish it to be known tha [illegible] less fortunately placed will be heartily welcomed. Ladies desirous of acting on county committees or assisting in any way are requested to forward their names and addresses to the Honorary Secretaries, Women's Memorial Fund, 64, Cannon-street, London, E.C., stating the district and county in which they are desirous of working.

THE ROYAL SOCIETY.

THE Council of the Royal Society have recommended as Fellows of the society Major Ronald Ross, I.M.S. (retired), director of the Liverpool School of Tropical Medicine, whose researches into the etiology of malaria have borne such brilliant fruit; Dr. C. J. Martin, Professor of Physiology in the University of Melbourne and an acknowledged authority on snake-poison; and Major Alfred W. Alcock, I.M.S., superintendent of the Museum at the Medical College of Calcutta, and well known for his researches in marine zoology.

DRUNKENNESS AND HEREDITY.

IT is now 18 months since the Society for the Study of Inebriety appointed a special committee to consider the relation of heredity to inebriety. The committee was composed of five physicians, two surgeons, a professor of bacteriology, an army surgeon, and five general medical practitioners. 18 months have been spent in investigation. The report of this committee has just been published and it is signed by nine of the 14 members, some of whom have made comments, while one has sent in an independent report. The reference to the committee was in these terms: to investigate the conditions under which the tendency to drunkenness is capable of transmission to offspring. It does not appear to be contended that inebriety in itself is hereditary but that a capacity or tendency to it *is* heritable. The report declares that the inebriety of an individual depends upon three conditions—the first being an *inborn* capacity for enjoying the sensations which alcohol produces, and the second and third being *acquired*—personal experience of the pleasures of alcohol and the increased delight which continued indulgence confers in the case of the inebriate. That one drunken generation often succeeds another suggests an hereditary taint. The committee adds that there is no evidence that acquired characters of any kind are heritable. This appears to have been a much-debated question. Popular opinion has taken for granted that the acquired characteristics of parents are likely to be inherited and, of course, "temperance reformers," well-meaning, but often ignorant and misguided, have not been slow to urge upon the public that each man's drinking is pretty sure to produce for him a generation of children who will become drunkards. If this be not true the temperance reformer (who is generally in favour of entire abstinence rather than of temperance) must bear a heavy responsibility for the vast amount of mental torture which he has inflicted on the moderate-drinking citizen. The last word of science, however, as declared by teachers of physiology, biology, and botany, is a very definite assertion that no instance of the hereditary transmission of an acquired characteristic has ever been demonstrated either in the animal or the vegetable kingdom. If this be a fact a man can only transmit to his son the hereditary taint with which he was born, and if a man having no inborn tendency to excess yet acquires drunken habits his progeny are in no more danger than are those of his neighbour, leaving out of consideration the effect of environment on youth. It is not denied that drunken parents who become thus mentally and physically weak are liable to have children who are degenerate—weak in body and feeble in mind; such persons, in fact, as under unpropitious circumstances tend to become paupers, criminals, epileptics, and drunkards. The point which is denied is that the drunkard's child has the specialised tendency to become inebriate rather than vicious in some other direction. It seems probable that the question of environment is of more importance after all than that of heredity, and a man of strong will is just as likely to exercise it in the gratification of his desires as in the contrary direction. If a man of powerful will finds that alcohol gives him pleasure he will take good care to repeat the experience. The habitual drinker is one to whom alcohol brings enjoyment, either as positive pleasure or cessation of pain, whereas the voluntary abstainer is one who from constitutional peculiarity finds little pleasure in alcoholic exhilaration. Alcohol weeds out from every race the individuals who most enjoy and indulge in it. The races of Southern Europe who have had the longest experience of alcoholic drinks are now more temperate than the British, the Scandinavians, and the Russians. The committee is of opinion that the continued abuse of alcohol tends to render a race less innately prone to inebriety than it would otherwise have been, this result being brought about by the elimination of the drunken unfit and the survival of those with a weak tendency to alcoholism.

THE MIDDLESEX HOSPITAL LODGE OF FREEMASONS.

THE consecration of the Middlesex Hospital Lodge, No. 2843, took place at Freemasons' Hall, London, W.C., on Tuesday, May 7th. The ceremony of consecration was conducted by V. W Bro. Edward Letchworth, P.G.D., Grand Secretary, assisted by other Grand Officers, amongst whom were W. Bro. Clement Godson, M.D., P.G.D. (as S.W.), W. Bro. Alfred Cooper, F R.C.S., P.G.D. (as J.W.), and W. Bro. Surgeon-Lieutenant-Colonel H. W. Kiallmark, P.G.D. (as I.G.), W. Bro. T. G A. Burns, M.A., M.R.C.S., was appointed the first Master of the Lodge, with Bro. William Duncan, M.D., F.R C S., as Senior Warden, and Bro. Frank J. Wethered, M.D., F R C.P., as Junior Warden. The other officers are as follows: R. W. Bro. the Earl of Lathom, Prov. Grand Master for East Lancashire, I.P.M., Bro. Henry Morris, F.R C S., treasurer; Bro. F. Clare Melhado, secretary; W. Bro. E. J. Humphery, P.G.S., D. of C., Bro. A G. R. Foulerton, F.R C S., S.D., Bro. F. P. Wightwick, M D., J.D., W. Bro. C. Vincent Cotterell, I.G., W. Bro. Wilhelm Ganz, P.G.O., organist; and Bro. R. A. Young, M.D., steward. The Worshipful Master, in replying at the banquet to the toast of his health, remarked that the Middlesex Hospital Lodge was the fifth lodge founded in connexion with medicine in London, the others being the Æsculapius Lodge (which is a general medical lodge), the Rahere Lodge (St. Bartholomew's Hospital), the Sancta Maria Lodge (St. Mary's Hospital), and the Cavendish Lodge (West London Hospital). He also stated that he understood that three other great London hospitals were taking active steps for the foundation of Masonic lodges. About 70 brethren were present, including a large number of guests, W Bro. R. J. Reece, M.D., P.M. of the Rahere Lodge, and W. Bro. L. Bidwell, F.R.C.S., W.M. of the Cavendish Lodge, responding to the toast of "The Visitors." The Middlesex Hospital Lodge has started upon its Masonic career under most promising and pleasant auspices, and we venture to prophesy for it a success not less than that which has attended the other Masonic lodges attached to metropolitan hospitals. The good work done in the world's behalf by hospitals is known to everyone, and the good work done by Freemasonry, however jealously its mysteries may be guarded, is no secret, for public witness is borne to this fact by its magnificent charities—the schools for girls and for boys who are children of Masons and the Benevolent Institution for Aged Freemasons and Widows of Freemasons. Long may such a happy union of charity's forces as is evidenced by a hospital Masonic lodge flourish. The pleasure of the post-prandial proceedings was enhanced by an admirable selection of music by the "Westminster Singers" under the direction of Bro. Ganz.

SUPERVISION OF THE CRIMINAL INSANE IN THE PAST CENTURY.

IN the *Journal of Mental Science* for April Mr. Richard Brayn, superintendent of the State Criminal Lunatic Asylum, Broadmoor, deals with the important matter of the State supervision of criminal lunatics, and sketches the progress made with respect to their care in the course of the past century. Previously to the year 1800 no special provision was made for criminal lunatics; they were either dealt with as ordinary lunatics or were committed to prison and punished for their offences. The result of this was that "many of the bridewells were crowded and offensive because the rooms designed for prisoners were occupied by lunatics";[1] and, on the other hand, it was stated by the Attorney-General[2] that "persons who had committed the most shocking acts, and been acquitted on the grounds of being deranged in their intellects, had been allowed to go at large and again commit similar atrocities." In July, 1800, an "Act for the Safe Custody of Insane Persons charged with Offences" was passed. This is the oldest of the statutes relating to criminal lunatics and was the direct outcome of the trial of Hadfield for attempting the life of George III. The appointment of a Select Committee on Criminal and Pauper Lunatics in 1807 was the next step of importance. This committee recommended "that a building should be erected for the separate confinement of all persons detained under the above-mentioned Act ...... for offences committed during a state of insanity." Nothing was done, however, till 1814, when wards for the accommodation of 60 criminal lunatics were constructed in connexion with Bethlem Hospital; but a few years later it was found necessary to double the accommodation, and shortly afterwards further provision was required. In 1849 an arrangement was made whereby accommodation for criminal lunatics was obtained at Fisherton House and at the Camberwell and Dumfries lunatic asylums. The wards provided at Bethlem Hospital and Fisherton House soon became filled, and it was at last decided to build a special asylum for criminal lunatics, and in 1856 Broadmoor was selected for the erection of such an institution. In 1860 an Act of Parliament commonly known as the Broadmoor Act was passed, which made the necessary provisions for the government of such an institution, and for its annual inspection by the Commissioners in Lunacy, and in 1863 the Broadmoor Asylum for Criminal Lunatics was opened. Originally constructed to accommodate 400 male and 100 female patients, it has since then been altered and enlarged until now (1900) it has accommodation for 480 males and 187 females. In 1883 an Act called the "Trial of Lunatics Act" was passed. A further Act to consolidate and amend the Acts relating to criminal lunatics was passed in 1884. This Act makes provision for the certification and detention of insane prisoners as criminal lunatics, and is the statute which mainly governs the practice and method of procedure in dealing with criminal lunatics in asylums. The treatment of patients in Broadmoor Asylum is, says Mr. Brayn, based on the same principles as that of other asylums, excepting that in consequence of the dangerous and violent propensities of many of the patients, stricter supervision and a larger staff of attendants are required. From statistical tables compiled by Mr. Brayn it appears that 83·3 per cent. of the total population of the asylum were cases of homicide and homicidal attempts.

THE TREATMENT OF THREAD-WORMS.

IN our issue of April 20th there appeared a letter from a correspondent asking for some hints as to the treatment of thread-worms. In THE LANCET of April 27th another correspondent replied advising the use of copaiba given by the mouth. We have also received a letter from a non-medical correspondent who says that both he himself and a child, aged 10 years, were formerly greatly troubled with these pests. Our correspondent tried (doubtless under medical advice) many remedies but without success, until at last he took to having all drinking-water boiled, since when neither he himself nor the child has been troubled. The treatment usually recommended is that of enemata of solution of common salt, of solution of perchloride of iron, or of infusion of quassia together with a purgative. As, however, the main habitat of the worm is in the cæcum and not in the rectum it is obvious that rectal injections will generally fail to dislodge the main body of the parasites. Cobbold used to recommend aloes and assafœtida for adult patients and for young children small doses of perchloride of iron together with a saline purgative. But in no disease is the principle of *obsta principiis* more to be remembered than in cases where a patient is infested with oxyurides. Water should be boiled, though this is not the usual medium of infection, for the ova quickly die in water, and uncooked vegetables or fruit should be washed before being eaten. But in most cases the process of infection is a sort of vicious circle—namely, by the hands of the sufferer himself, the ova being conveyed to the hands by scratching and thence to the mouth again. Strict personal cleanliness is therefore of the highest importance and the nails should be kept as short as possible.

THE PRODUCTION OF BACTERIAL DISEASE IN RATS AND MICE.

IN April, 1900, Professor Danysz of Paris published in the *Annales de l'Institut Pasteur* an account of a micro-organism pathogenic to rats, whether given in their food or by subcutaneous injection, and presenting some resemblance to Loffler's "mouse typhus" bacillus and to the bacterium coli. Bacilli which had been once passed through an animal killed rats in from seven to 12 days, but by successive passages through animals their virulence diminished and finally disappeared altogether. Professor Danysz was very successful in experiments which he made on a large scale for the destruction of rats in drains by this means, for the dead rats were eaten by the others and thus the disease was spread. With a view to test the applicability of the method for the destruction of rats in time of plague Dr. J. Kister and Dr. P. Kottgen of the Public Health Institute in Hamburg have made a number of observations which are published in the *Deutsche Medicinische Wochenschrift* of May 2nd. They found, like Professor Danysz, that the virulence of the bacillus for rats diminishes with successive passages through the animal organism, and after about 10 passages it no longer causes death. For their experiments they grew pure cultures from the heart-blood of dead animals on agar plates. The weight of an agar plate stroke culture mass of 24 hours' growth was about nine milligrammes, and a rat was, on an average, given bread soaked in fluid containing one of these. These rats, after they had eaten the whole of the bread, were put in a cage with a large number of healthy rats. The latter did not fall ill if the infected rats as they died were immediately removed from the cage, but if food were withheld, so that the dead rats were eaten by the others, the disease immediately spread and the rats infected from the dead bodies died in about the same time as those which were fed on the bread to which the cultures were added. Fowls, cats, dogs, and guinea-pigs to which the bacilli were administered suffered from no symptoms of illness whatever. The rats killed in this way never showed the swellings of the lymph glands or the hæmorrhages into the internal organs and into the subcutaneous connective tissue which are almost invariably found in rats that have died from plague

---

[1] Howard: State of Prisons.
[2] Hansard: 1800, vol. xxxv.

THE ANNUAL DINNER OF THE WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

THE annual dinner of the West London Medico-Chirurgical Society was held on Wednesday last, May 8th, at Frascati's Restaurant The President, Dr. F. F. Schacht, was in the chair, and the list of speakers included, among others, the names of Sir Richard Douglas Powell, Dr F. W. Pavy, Mr. Howard Marsh, Mr. C. B. Keetley, and Dr. Seymour Taylor. About 130 members and guests attended. Dr. Pavy, President of the Royal Medical and Chirurgical Society, in replying to the toast of "Kindred Societies," spoke eloquently upon the extension of medical knowledge and science which had taken place during the last few years, pointing out that this had led to the formation of many medical societies founded for the consideration of all the various points of interest in the different branches of medicine and surgery. The enormous increase in the population of London alone had created districts far away from the centre where the older societies had their home and younger societies had been constituted to fill the want of a local centre of discussion. The West London Medico-Chirurgical Society was formed in this manner, and though the older societies could not help feeling that these vigorous saplings drew a certain amount of sap from the parent stem, the feeling towards them was one of congratulation, for it was recognised that they had the same object as their seniors—viz , the extension and diffusion of medical knowledge for the good of humanity

THE HEALTH PROSPECTS OF HAVANA UNDER THE UNITED STATES GOVERNMENT.

WE have received a copy of a very interesting communication from the chief sanitary officer in Havana, Cuba, to the Adjutant-General, Department of Cuba, regarding the vital statistics of Havana for the month of March last. The population numbers 253,333 and Major W. C Gorgas, Surgeon in the United States Army, the chief sanitary officer, invites the attention of the major-general commanding to the continued excellent sanitary condition of the city as shown by the general death rate of 26 28 per 1000 which is considerably lower than that of any March since 1889—the lowest previous rate for the preceding 11 years being that of 1893 when it was 27 60; the highest that of 1898, the last year of Spanish occupation, when it stood at 78 00 It will be seen from this that there has been a steady decrease since the American occupation and that Havana will now compare favourably with many other of the larger cities of the world. As regards yellow fever the report is especially good It shows four cases and one death The only two years since 1889 showing as small a number of deaths as this were 1892 and 1899, when there was one death in March for each of these years In 1900 during March there were 11 cases and four deaths "As a matter of fact we have had only one case of yellow fever in Havana since March 1st, and since March 23rd the city of Havana has been entirely free from that disease This is the first time this has occurred since June, 1899. There were two occasions in 1900 when we went for a few days with no fever, but none since the time mentioned that we have been free from fever as long as at the present I feel very much encouraged at the prospects for the summer." The chief sanitary officer thinks that the present freedom from fever is in part due to the systematic and extensive way in which the mosquitoes have been killed. He states that he has the greatest hopes of destroying the foci as they appear by systematically killing the mosquitoes over a large area around each focus as it occurs. He is inclined to think that they have been free from fever for a longer time than has ever occurred in Havana before With regard to small-pox the report is equally satisfactory. Not a single case has occurred in Havana since August, 1900 These two diseases, yellow fever and small-pox, have been looked upon as being endemic in Havana; consequently the present state of affairs is particularly worthy of remark. A large amount of sanitary work is being done and bacteriological examinations are being instituted.

NICOTINE AND FUSEL OIL.

MODERN researches are distinctly tending to show that neither are the poisonous effects of unlimited tobacco-smoking due to nicotine nor are the toxic consequences of excessive whisky drinking due to fusel oil. Whisky certainly does contain fusel oil and tobacco contains nicotine, but while the fusel oil directly reaches the system it is practically certain that the nicotine of tobacco does not occur as such, at any rate to any extent, in the smoke. By far the greater portion of the nicotine in tobacco—and as we have shown the amount of nicotine in Virginia tobacco does not often exceed 1 per cent , although there is a popular idea that the quantity of nicotine is much more than this—is destroyed by the combustion. New products, however, are formed, consisting of tobacco tar-oils which are undoubtedly poisonous The foul smell of a well-used pipe is due to these oils, in which analysis has shown but a trifling quantity of nicotine The composition of these oils indicates that they are very closely related to nicotine, and their chief constituent is pyridine, and it and its "relatives" are responsible for the violent headache, trembling, and giddiness following excessive smoking. The degree of toxicity of the smoke, however, probably depends largely upon the completeness of the combustion The combustion of the cigarette is probably more complete than that of the tobacco in a pipe or of the uncut leaf of a cigar. But the pipe serves as a condenser, the condensed products not reaching the mouth The filthy fluid accumulating in a pipe is very poisonous. A good deal of condensation must take place in the cigar and, moreover, the products reach the mouth and are absorbed. According to this we should place in the order of injuriousness, beginning with the worst first, the cigar, the pipe, and the cigarette The experience of juvenile smokers or beginners would seem to bear out this classification. With the schoolboy the first step to smoking is the cigarette, then the pipe, and later he is tempted to try the cigar Much in the same way that nicotine was credited with being the poisonous agent in smoking, so fusel oil has been looked upon as the constituent producing the train of symptoms (chiefly headache) following a free potation of not too good whisky It is now shown that, comparatively speaking at any rate, fusel oil is not the injurious constituent of whisky It is rather the aldehydes, the partly oxidised alcohols in whisky, which are mischievous, and the chief amongst these is furfural Old matured whisky is free from furfural, while freshly made or unmatured spirit contains a marked amount of this constituent, the source of the throbbing headache of the heavy drinker. In the light of these interesting observations it is apparently no longer correct to speak of fusel oil in whisky as the toxic body which it is desirable to eliminate or of nicotine as the poisonous constituent of tobacco smoke. In the former case it should be furfural and in the latter case pyridine and its congeners.

THE METROPOLITAN ASYLUMS BOARD.

THE resignation by Sir Edwin Galsworthy of the office of chairman is an event in the history of the Metropolitan Asylums Board. He has been a manager of the Board for 33 years and chairman for a period of 20 years. Opinions will vary as to the policy of the Board in developing the system of wholesale admission of all infectious cases to the hospitals of the Board without discrimination as to the social position and means of patients—a system which is said to cost £700,000 a year instead of £4000 which was the expenditure when Sir Edwin Galsworthy became a member. According to a statement by Mr. Elliott, one of the representatives for Islington on the Metropolitan Asylums Board, it is one of the most expensive boards in the kingdom. Originally intended for the poor, its hospitals are open to all comers, and patients are visited, according to Mr. Elliott, by "friends who come in a carriage-and-pair." This statement may be inaccurate or misleading, but it is certainly true that the doors of its hospitals are open to patients of all classes, and to classes for which these hospitals were never intended. And the development of this system certainly coincides with Sir Edwin Galsworthy's chairmanship. He has nevertheless been an able chairman who has displayed such a power of work, and such tact and ability, as have induced the managers to re-elect him to the chair for 20 years. We shall not choose this moment to be critical or to press the suggestion that the time is ripe for investigating the effect of the hospitals on infectious diseases and on the limitation of their spread, the more so as we fully recognise with the managers the great work which has been done and the great qualities which have been displayed by Sir Edwin Galsworthy, and we are ready to admit that the grave responsibility for the wholesale gratuitous treatment of disease in persons who are not paupers must rest ultimately not with him and his colleagues, but with Parliament and the Local Government Board which was intended to have some function in regulating the uses of these hospitals. The expenditure is part of that municipal expenditure which is grossly overlooked by Parliament and which is rapidly involving a debt that threatens to reach the proportions of the national debt.

A TELEGRAM from Sir W. F. Hely-Hutchinson, Governor of the Cape of Good Hope, states that for the week ending April 27th the total number of cases of plague admitted to hospital was 63; of this total 22 were Europeans, 35 were coloured, 5 were Malay, and 1 was a native. The deaths numbered 32—9 European, 18 coloured, and 5 Malay. The number of cases admitted up to midnight on April 27th was as follows: European, 135; coloured, 226; Malay, 26; Indian, 5; Chinese, 1; natives, 126; total, 519. Total deaths: Europeans, 41; coloured, 102; Malay, 20; Indian, 5; natives, 49; total, 217. A private in the Royal Engineers had been attacked. Among persons under naval and military control the total up to April 27th reached 43. No further cases have been discovered at Port Elizabeth. A case having all the symptoms of plague has been reported from Mafeking.

THE London Companies of the Volunteer Medical Corps are giving a dinner to welcome home the members of the corps returning from active service in South Africa. The dinner will take place at the Holborn Restaurant on Saturday next, May 18th, and communications from those intending to be present should be made to the honorary secretary of the Officers' Mess, 51, Calthorpe-street, London, W.C.

THE annual dinner of the Indian Medical Service will be held at Prince's Restaurant on Thursday, June 13th, at 7.45 P.M., Surgeon-General R. Harvey, C.B., D.S.O., the Director-General, in the chair. Officers intending to be present should communicate as early as possible with the honorary secretary, Mr. P. J. Freyer, 46, Harley-street, London, W.

THE annual dinner of the Chelsea Clinical Society will be held on Thursday, May 23rd, at 7.45 P.M. in the Princes Room of the Criterion Restaurant. Further particulars may be obtained from the honorary secretary, Dr. Austin Cooper, 41, Sloane-square, London, S.W.

LORD LISTER and Sir William Broadbent attended the first sitting of the Commission of Inquiry at the National Hospital for the Paralysed and Epileptic, Queen-square, London, W.C., on May 4th. The commission have continued their sittings since last Saturday.

THE twenty-third annual congress of the American Rhinological Association will be held in the Dwight Hall of Yale University on May 27th, 28th, and 29th. Dr. H. L. Swain of Newhaven is the President of the Congress for the year.

WE are glad to be able to congratulate Sir Frederick Treves, C.B., upon his knighthood, the King having conferred upon him since our last issue the distinction of Knight Commander of the Royal Victorian Order.

THE annual dinner of the Pharmaceutical Society of Great Britain will be held at the Whitehall Rooms of the Hôtel Métropole on Tuesday, May 21st.

A SERIOUS epidemic of scarlet-fever, prevalent in Shoreditch and Bethnal Green, has been traced to an infected milk-supply.

MEDICAL NOTES ON THE LIFE OF EDWARD GIBBON, THE HISTORIAN.

By WILLIAM H. HORROCKS, F.R.C.S. ENG.,
HONORARY SURGEON, BRADFORD INFIRMARY.

IN studying the life-history of an individual long since dead the account has frequently to be drawn from non-medical sources and is of necessity indefinite and in parts incomplete. It is of interest to trace the effects of health and physique in shaping the career.

Edward Gibbon was born on April 27th, 1737, of parents in a good social position. His father contested a county election in times when rival candidates showered bribes on their bibulous supporters. Edward Gibbon was the oldest of six children, but the other five died at an early age. So feeble was his constitution that in the baptism of his brothers his father's name was given to each succeeding child. Gibbon in his autobiography says that his mother's attention was somewhat diverted by her frequent pregnancies, by an exclusive passion for her husband, and by the dissipation of the world. The maternal office was fully supplied by his aunt who not only tended him with care but sought the medical aid of every practitioner from Sloane to Ward. As he had trouble with his sight the services of Chevalier Taylor, a well-known quack oculist, were called into request. So he passed a sickly childhood with frequently interrupted attempts at education. When he was 13 years of age he suffered from a strange nervous affection which alternately contracted his legs and produced, without any visible symptoms, the most excruciating pain. For this he was treated at Bath "by bathing and pumping." Writing to Lord Sheffield in later life he thus sums up his early history: "I was a puny child, neglected by my mother, starved by my nurse, and of whose being very little care or expectation was entertained; without the vigilance of my aunt I should have gone to my grave or imperfectly lived a crooked rickety monster, a burden to myself and others. It might be apprehended that I should continue through life an illiterate cripple, but as I approached my sixteenth year nature displayed in my favour her mysterious energies My constitution was fortified and fixed and my disorders, instead of growing with my growth and strengthening with my strength, most wonderfully vanished. I have never possessed nor abused the insolence of health, but since that time few persons have been more exempt from real or imaginary ills."

At 15 years of age Gibbon was admitted a gentleman commoner at Magdalen College, Oxford. His duties here were not arduous, for after paying his fees he was not further troubled by his tutors during his term of residence. No college lectures were delivered and the life of the professors was spent in hunting, dining, and discussing the politics of the day. Gibbon's naturally studious inclinations led him to read deeply in classics, to which he had ready access. His father, however, cut short his university career on hearing that his son had become converted to the Roman Catholic faith. He was withdrawn from Oxford and sent to Lausanne to be under the care of a Lutheran minister. Here Gibbon continued his student life under the guidance of an able teacher. "The desire of prolonging my time of study gradually confirmed the salutary habit of early rising to which I have always adhered. It is happy for my sight and my health that my temperate ardour has never induced me to trespass on the hours of the night." After three years at Lausanne he returned to England, where he lived until the death of his father. Gibbon then returned to Lausanne and began his great life-work, "The History of the Decline and Fall of the Roman Empire." This work was published in six quarto volumes between 1766 and 1787. Early in 1790 Gibbon had an attack of gout which began with acute pain in the foot and was followed by weakness in the knees, which kept him a prisoner for several months. The length of this attack may possibly be accounted for by the pipe of excellent port which his friend Lord Sheffield had sent him.

In 1791 Gibbon's health showed evident signs of failure. "Although he was inclined to represent his health as better than it really was his habitual dislike to motion appeared to increase. His inaptness to exercise confined him to the library or dining-room, and there he joined Mr. Frederick North in arguments against exercise in general. He ridiculed the unsettled and restless disposition that summer, the most uncomfortable of all seasons, generally gives to those who have free use of their limbs." In a letter to Lord Sheffield in November, 1793, Gibbon writes: "I must at length withdraw the veil before my state of health, tho' the naked truth may alarm you more than a fit of gout. Have you never observed through my inexpressibles a large prominency, which, as it was not at all painful and very little troublesome, I have strangely neglected for many years? But since my departure it has increased, is increasing, and ought to be diminished. Yesterday I sent for Farquhar, who is allowed to be a very skilful surgeon. After viewing and palping he very seriously desired to call in assistance, and has examined it again to-day with Mr. Olive, a surgeon of the first eminence. They both pronounce it a hydrocele (a collection of water) which must be let out by the operation of tapping, but from its magnitude and long neglect they think it a most extraordinary case and wish to have another surgeon, Dr. Baillie, present. If the business should go off smoothly, I shall be delivered of my burden (it is almost as big as a small child), and walk about in four or five days with a truss. But the medical gentlemen, who never speak quite plain, insinuate to me the possibility of an inflammation, of fever, &c." A few days afterwards Gibbon was tapped for the first time, four quarts of a transparent watery fluid being evacuated Neither fever nor inflammation ensued and the tumour was reduced to nearly half its size. The remaining part was a soft, irregular mass. He was about again in a few days, but the water collected very fast. The swelling was again tapped in a fortnight, this operation being more searching and painful than the first, but it eased and lightened him to a much greater degree. Three quarts of a similar fluid were discharged; "no inflammation; *a good night; permission to go out on the following* day, and to await the future measure of a radical cure."

On Dec. 23rd, 1793, his appetite began to fail; a considerable degree of fever now made its appearance. Inflammation arose from the weight and bulk of the tumour and water again collected very fast. The tumour became more distended and ulcers formed in many places. Remedies were applied to abate the inflammation but it was not thought proper to puncture the tumour a third time until Jan. 13th, 1794. He seemed much relieved by the evacuation. On the third day after the operation he complained much of his stomach and of a disposition to vomit. Soon after 9 P.M. he went to bed and took his opium draught; he became gradually weaker and died on the following day. At the post-mortem examination the following condition was found. The scrotum formed a large sac which descended almost to the knee. The skin covering it was ulcerated at several spots. The sac contained part of the colon and the whole of the omentum, which was much enlarged. The stomach was dragged down so that its orifice was near the pubes. "This," the writer says, "was probably the cause of death." On the omentum and intestine were small spots of livid colour. In the liver a great number of small tubercles were seen.

It is very evident from the account of the illness and examination that Gibbon died from septic infection. The first two tappings were satisfactory, but after the second tapping the skin of the scrotum sloughed and the third tapping infected the sac. This caused a localised peritonitis of the sac and its contents with secondary abscesses in the liver. From this description it appears that his disease was irreducible hernia with accumulation of fluid in the sac and not, as usually stated, hydrocele of the tunica vaginalis.

PROVISIONAL RETURNS OF THE CENSUS OF 1901.

WE are indebted to the Registrar-General for the tables at the end of the present article which give the first results of the recent English *census* The present list is limited to the metropolitan boroughs and the county boroughs of England and Wales It is based on the summary returns furnished by the local registrars, and accordingly must be regarded as provisional only, being subject to modification in detail when, in due course, the enumeration books have been received and scrutinised at the central office. The publication of census returns by instalments, whilst in some respects a desirable arrangement, is nevertheless likely to give rise to more or less dissatisfaction among the dwellers in those districts which are not included in the earliest lists. Others, again, will be impatient because a statement of the entire English population is not furnished at once. But a little consideration will show that the labour of accurately summarising and tabulating the populations of a vast number of small and highly complex areas is very considerable and is calculated to tax severely the energy and ingenuity of any staff; added to which we are officially informed that the local registrars were not instructed to transmit their summaries to the central office until April 27th at the earliest. We, therefore, are of opinion that credit is due to the authorities at Millbank for having prepared and published within ten days of the commencement of the work a *summary* which deals with the metropolis and with the whole of the more important towns of England and Wales.

Turning first to London, we find that on April 1st the administrative county contained 4,536,034 people, being an increase of more than 307,000 on the number enumerated 10 years ago. Estimated to the middle of the present year the population of the metropolis is 4,543,700 in round numbers, which is below the estimate based on the increase between the two previous censuses by more than 107,000. In the several metropolitan boroughs the movement of the population since the last census has been very unequal. In seven of the boroughs—namely, Bermondsey, Finsbury, Holborn, St. Marylebone, Shoreditch, and the Cities of London and Westminster—there has been a decrease in the population, whilst in the remainder of the metropolis the numbers have increased, the increase having been greatest in Wandsworth, Woolwich, and Lewisham. In the 67 provincial county boroughs there has been inequality in the movement of population quite as marked as that which has occurred in the metropolis. In a few of the older towns the population has remained almost stationary, and in others, such as Bath and Chester, there has been some slight decrease since 1891; but in the great manufacturing cities, such as Liverpool, Manchester, Birmingham, Leeds, and Sheffield, there have been increments of population in the last decade ranging from 40,000 to 50,000, and even 60,000.

It is chiefly in relation to vital statistics that the returns of the census are interesting and serviceable to our profession. Students of preventive medicine generally, and especially those holding public health appointments, have to rely entirely on these returns for the correction of the estimates of population on which local rates of sickness and mortality are computed, and thus a test is provided by which the results of sanitary improvements can be judged. From this point of view it will be useful to compare the estimates of population based on the recent enumeration with those calculated beforehand, on the theory that the rate of increase or of decrease in the last intercensal period has been maintained since 1891. Taking the 33 great towns of the Registrar-General we note that the populations of 24 of them, including London, had been over-estimated, in several instances very seriously; that in five cases they had been under-estimated; and that in four cases only did the previous estimate agree closely with the results of the recent census.

Under these circumstances it is clear that for purposes of accurate vital statistics an enumeration of the people ought to be taken more frequently than once in ten years, and we hope that when the quinquennial London census of 1906 comes to be provided for arrangements will be made to extend the provisions of the Metropolitan Act to the remainder of England and Wales.

Population enumerated in 1901 in the 67 County Boroughs of England and Wales.

County boroughs.	Enumerated population, 1901.	County boroughs.	Enumerated population, 1901.
Barrow-in-Furness ...	57,589	Leicester...	211,574
Bath	49,817	Lincoln	48,783
Birkenhead	110,906	Liverpool	685,276
Birmingham	522,182	Manchester	543,930
Blackburn	127 527	Middlesbrough ...	91,300
Bolton...	168,205	Newcastle upon-Tyne	214,993
Bootle	58,481	Newport (Monmouth)	67,279
Bournemouth	47,003	Northampton ...	87,021
Bradford	279,809	Norwich	111,728
Brighton	123,478	Nottingham	239,753
Bristol...	328,836	Oldham	137,238
Burnley	97,044	Oxford	49,413
Burton upon-Trent	50,386	Plymouth	107,509
Bury (Lancashire)...	58 028	Portsmouth	189,160
Canterbury	24,401	Preston	112,910
Cardiff	164,315	Reading	72,214
Chester	36,281	Rochdale	83,112
Coventry	69,877	Saint Helens... ...	84,410
Croydon	133,885	Salford	221,015
Derby	105,785	Sheffield	380,717
Devonport...	69,674	Southampton ...	104,911
Dudley	48,809	South Shields ...	97,272
Exeter	47,180	Stockport	78,871
Gateshead	109,891	Sunderland	146,828
Gloucester...	47,944	Swansea	94,505
Great Yarmouth ...	51,250	Walsall	86,440
Grimsby	63,119	Warrington	64,241
Halifax	104,937	West Bromwich ...	65,172
Hanley	61,519	West Ham	267,308
Hastings	65,528	Wigan	60,770
Huddersfield	95,003	Wolverhampton ...	94,179
Ipswich	66,622	Worcester	46,623
Kingston-upon-Hull	237,786	York...	77,793
Leeds	428,953		

Population enumerated in 1901 in the Administrative County of London and in the 29 Metropolitan Boroughs.

Metropolitan boroughs	Enumerated population, 1901.	Metropolitan boroughs.	Enumerated population, 1901.
City of London ..	26,908	Lambeth...	301,873
Battersea	168,896	Lewisham	127,490
Bermondsey	130,486	Paddington	143,954
Bethnal Green	129,681	Poplar	168,838
Camberwell	259,253	St. Marylebone ...	133,329
Chelsea	73,856	St. Pancras	235,264
Deptford	110,513	Shoreditch	118,705
Finsbury	101,476	Southwark	206,123
Fulham	137,289	Stepney	293,548
Greenwich...	95,767	Stoke Newington ..	51,247
Hackney	219,283	Wandsworth ..	232,030
Hammersmith	112,245	Westminster, City of	182,977
Hampstead	81,902	Woolwich	117,165
Holborn	59,390		
Islington	334,928	Administrative County of London	4,536,034
Kensington	176,623		

THE REPORT OF THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA FOR 1899.

FIRST NOTICE.

THESE reports are so ably drawn up and contain such an excellent *résumé* of the latest information and literature on the subjects of which they treat that we always welcome their appearance and regret that they are not better known to the profession generally than they seem to be. In this respect, however, they probably only share the fate of other Government documents drawn up with great labour and skill. The fact that these annual reports happen to deal largely with statistical data relating to the public health that obtained in India a year or two previous to the date of their publication probably has a deterrent effect on the readers of medical literature other than those directly interested in Indian affairs. All we can say is that it is unfortunate if this be so, for the reports, as we have said, contain a mass of valuable and carefully compiled scientific information regarding the etiology and pathology of a variety of diseases which is not to be elsewhere met with in such a compendious form. From an official standpoint the statistical data and the conclusions that may be deduced from them are invaluable to statesmen, to military authorities, and to others connected with the government and wellbeing of India, because many of these conclusions, having been derived from observations drawn from large numbers and repeated over a long series of years, may be regarded as very much in the light of natural laws. They must therefore be taken into practical account in considering any Indian policy or dealings with that country. They may be regarded, too, as the only available guides which we have for forming an estimate of what may be expected to occur in other climates of a tropical or sub-tropical kind. It would be a great mistake, however, to suppose that the value of these reports is circumscribed within these limits. It is their medical interest and value with which we are concerned and it is in these respects that we hope to show that they are not lacking.

Starting with the European army in India we may, in the first place, give a summary or bird's-eye view of the statistical results. The health of the European troops in 1899 was again much better than in the preceding year, the rate of invaliding only being greater than in the corresponding decennial ratio. The year on the whole was hot and dry, with deficient rainfall. To these meteorological conditions is attributed in the report the fact that the admission-rate, death-rate, and invaliding-rate from malarial fevers were much reduced. The total strength of the

European army in India was 67,697 in 1899. The chief causes of admission were venereal diseases and ague. The former caused 27 per cent. of the total sickness and ague 20 per cent. The chief causes of death were enteric fever and hepatic abscess. Enteric fever caused 40 per cent. of the total deaths and hepatic abscess 10 per cent. The causes of invaliding were numerous and need not be enumerated. A table is given of the comparative ratios of the different military commands. Bengal had the highest mortality from heat-stroke, tubercle of the lungs, and dysentery; the Punjab the highest rate from enteric fever, remittent fever, pneumonia, and other respiratory diseases; and Madras, which recorded the lowest mortality-rate but the highest constantly-sick and admission rates, had the highest death-rate from hepatic abscess. All the commands were more healthy than in 1898. Of the larger military stations Peshawar, Lucknow, Umballa, and Bangalore return the highest death-rates. There was only one case of cholera in the whole of the European army in India in 1899, and "never before in the records of this office," says the Sanitary Commissioner with the Government of India, "has so low a mortality appeared." There can, we think, be little doubt that the persistent efforts in carrying out sanitary improvements in all that concerns the European army in India have had a most favourable effect, for we no longer hear of the wide-spread epidemics and outbreaks of cholera in cantonments which were once so frequent. It is remarkable how little we still really know, however, of the conditions which give rise to the widespread prevalence of a disease with its epidemic intensity in one year, and its dormancy or almost complete disappearance during other years where the conditions, whether meteorological or otherwise, seem to be identical or nearly the same in both cases alike. The phenomenon is of too striking a character not to have attracted notice always, and its explanation was once vaguely relegated to an epidemic constitution of the year or season. Explain it as we may, it makes all the difference in India if it is, as recognised by the natives of that country, a cholera year or not—whether the land is to be devastated by disease, or, in spite of having numerous foci of infection apparently ready for its spread, it is to have complete or comparative immunity from it in epidemic extent and force.

The subject of fever in India is a very wide and ill-defined one owing to the different forms and varieties of fever not having been accurately differentiated from one another. With regard to cases of remittent fever, about the exact nature of which there apparently exists some doubt, we may say that at Shwebo the disease, often of a severe type, was in all cases contracted in the very malarious forests to the north-east of the station where the natives, towards the end of the rains, had been dying in numbers from that disease. Of 11 fatal cases 10 of the bodies were examined. In five no very definite lesions were discovered, and in the remaining five the lesions were of various kinds, but not characteristic or indicative of enteric fever At Barrackpore cases suspected of being enteric fever, but not reacting to Widal's test, were returned as remittent fever, but they did not respond to the exhibition of quinine. Of the cases of so-called "simple continued fever" some are forms of heat fever or various local and constitutional affections attended with febrile disturbance, some turn out to be enteric fever or of a malarial or influenzal nature, and some appear to be cases of mistaken diagnosis. Latterly it has been suspected that the form of fever known as "Malta fever" or "undulatory fever" prevails in India, and a number of such cases are being discovered both among Europeans and natives. But we are told that "the experience of the past should warn those in authority, while encouraging the research, to exercise a certain amount of reserve in the acceptance of at least the earlier results. After all, serum diagnosis is still in its infancy or just emerging therefrom."

We now come to the subject of enteric fever, about the literature of which the report, together with the preceding one for 1898, contains a large amount of admirably compiled and interesting information. Among other references, it largely lays under contribution the Goulstonian Lectures for 1900 by Dr. P. Horton-Smith as adding some recent and very valuable information about enteric fever from its scientific side The report quotes among the more general conclusions at which Dr. Horton-Smith has arrived those illustrative of the distribution of the typhoid bacillus to the most diverse organs throughout the body, showing that "any conception of the disease which regards it merely as affecting the alimentary canal only can no longer be maintained." (We may parenthetically remark here that the use of the term "enteric" in army medical nomenclature is consequently misleading and no longer warranted.) So far from considering it as an intestinal disease pure and simple, it should rather be looked upon as a modified form of septicæmia, for the bacilli always and in all cases pass into the blood and then into the various organs. For years past precautions have been taken as regards the intestinal discharges. But it is the subject of the urine in its relations to the enteric bacillus, since the discovery of the bacillus in that fluid during the later stages of the disease and sometimes for a very considerable time afterwards, that has of late engaged so much attention. The bacillus gives rise in the skin to the typical eruption and Fraenkel has been able to show the multiplication of the bacillus in some excised roseola spots kept under proper conditions and with proper precautions. In stained sections he was able to find little heaps of bacilli lying in the papillary portions of the cutis and to demonstrate thereby that the roseola is not merely a hyperæmia, but a local lesion caused by the bacillus. The Sanitary Commissioner with the Government of India quotes as interesting to sanitarians in India some remarks from an article in THE LANCET on the endemic fever of English towns,[1] with special reference to the report of the medical officer of health of Chichester. *Apropos* of the prolonged infectiousness through the urine, for example—which is on the whole more dangerous than the fæces in this respect—of persons apparently restored to health after an attack of enteric fever, and the power of the bacillus to resist the effect of desiccation it becomes easy to understand how bacilli eliminated from the body may pass into the atmosphere and subsequently give rise to disease by being carried in the form of dust. Whether it be in this way or by an actual growth of the bacillus in the soil outside the human body is a question which can be settled only in the future. The report then takes up and discusses a number of points connected with water, filters, chemical purifiers, and bacteriology, together with some questions of a medical and pathological kind. However interesting these may be we must not linger over them

The great practical point connected with the returns of enteric fever in the European army serving in India is the marked improvement that has taken place in 1899 and the way in which it is to be explained. In 1898 the disease caused 2375 admissions and 654 deaths, and in 1899 (the year under report) there were 1392 admissions and 348 deaths. The admission-rate fell from 36 9 to 20 6 and the death ratio from 10 17 to 5 14. From this it will be seen that there has been a very marked fall indeed in the number of cases and a still more marked diminution in the mortality—the latter, indeed, being less than it has been for the previous nine years. While we may congratulate ourselves on this fact we wish that we could equally congratulate ourselves on any assured belief that we were at last on the right road; that, as these results were the first-fruits of an application of modern methods of preventive medicine in India, so we had only to continue and to increase our efforts to ensure a progressive improvement in the future. The report does not, however, give us any assurance of the kind. It practically ascribes the change to two factors—first, that owing to the war in South Africa the influx of drafts from home was stopped during part of the year, and, secondly, that there was no field service going on in India during the year. Seeing that the liability to die from enteric fever during the first year of residence in India is far greater than in any subsequent year it follows that in proportion as the supply of this susceptible material is reduced or cut off will there be a corresponding reduction in the prevalence and amount of this fever. It is, as we know, a well established fact that enteric fever affects the young and recently-arrived soldier. Of 100 cases of enteric fever 43 will be in patients between the ages of 20 and 25 years, and of 100 cases occurring in adults of all ages no less than 38 occur during the first year of residence in India and 60 in the first two years. With regard to the second factor—that there was no field service going on in India in 1899—we have to remembe [illegible] Tirah field force, [illegible] all of which suffer [illegible] r. In the case of Quetta, where there had been a great decrease in the amount of enteric fever, this decrease might have been fairly attributed to the sanitary measures adopted in 1898 but for a significant footnote in the report that there had been a renewed outbreak in 1900. With regard to the effect which protective inoculation against enteric fever may have exerted it would be premature to form any decided opinion at present, but so far as we know and so far as India is concerned its effect seems to be favourable in safeguarding the constitution against attack. We have still, however, to await the results of the returns from the army in South Africa.

---

[1] THE LANCET, July 21st, 1900, p 199.

THE ROYAL SOCIETY CONVERSAZIONE.

THE annual conversazione of the Royal Society was held on May 8th, when an unusually large number of Fellows gathered together to witness the exhibits, to exchange ideas, and to welcome the new President, Sir William Huggins, K.C.B., D.C.L. The exhibits covered a very wide range of scientific subjects and for the most part were of a severely technical kind and beyond the grasp of the average man.

The beautiful experiments shown by Mr. J. E. Barnard and Dr. Allan Macfadyen of the Jenner Institute were, however, very generally appreciated. In a darkened corner of the library they exhibited luminous cultivations presenting an eerie blue light emitted by specific bacteria. The luminous properties of these bacteria, which are well illustrated in such familiar objects as dead fish, meat, and other substances, are dependent upon a supply of free oxygen and a suitable amount of a soluble chloride in the nutritive medium. The light ceases in the absence of oxygen, but on shaking a culture with air the whole mass glows brilliantly. Phosphorus has nothing to do with this, as has been popularly supposed. The light calls to mind that of luminous paint. By its aid a book may be read and the position of the hands of a clock made out. Equally attractive were the experiments of Mr. W. Duddell, who succeeded in drawing musical sounds from the electric arc light. This is done by superposing alternating currents on the direct current through the arc, the result being the setting up of vibrations producing a musical note. The pitch can be varied by altering the capacity or self-induction, and a tune can be played on the arc by this means. It was found during the evening that the tunes played on the experimental arc were simultaneously produced in the arc lights in other parts of the building and in the street. Representatives of the press were attracted most by the telegraphone, a combined telephone and phonograph receiving, recording, and transmitting. The instrument dispenses with the mechanical arrangement of a sharp point acting upon a wax surface, the whole performance being brought about by induced currents. A message may be received along a single cable and distributed at the same time through any number of wires. Moreover, it is calculated to curtail the labour of heavy correspondence; messages of considerable dimensions can be recorded and packed off in very small compass on a steel ribbon. A speech of an hour's duration may be thus contained on a steel ribbon occupying not more than a litre of space.

Specimens of the so-called "blood-rain," which fell in Sicily were shown by Professor Rücker and Professor Judd, C.B. In two experimental areas the dust collected was equal to a fall respectively of five and a half and nine and a quarter tons to the square mile. It is said that this dust derived from Northern Africa was noticed as far north as Hamburg. Close by these specimens were some huge specimens of chromium, manganese and cobalt in the metallic state, obtained by reducing the oxides with finely divided aluminium. They were exhibited by Sir W. Roberts Austen, K.C.B. Mr. G. Abbott, M.R.C.S. Eng., illustrated "growth" in inorganic matter by his interesting specimens of the cellular or magnesian limestone simulating corals. The "molecular directive force" produces patterns suggestive of an organised structure. Dr. P. L. Sclater exhibited two bandoleers from the Congo State and made from the skin of a hitherto unheard-of mammal, probably allied to the zebra. The specimens were obtained by Sir Harry Johnston, Special Commissioner in Uganda. The Zoological Society showed living specimens of the heloderm from Arizona, the only venomous lizard known; and close by Dr. J. H. Gladstone exhibited some interesting specimens of ancient Egyptian gold from the tombs of the kings of the 1st dynasty, and next to these were some casts and photographs of Egyptian jewellery of the 1st dynasty, 4700 B.C., shown by Mr. Flinders Petrie, D.C.L. Amongst them were four bracelets which belonged to the Queen of King Zer.

One of the most interesting and important exhibits was the excellent collection of microscopical specimens illustrating West African Parasitology by the School of Tropical Medicine, University College, Liverpool. The objects included 12 new specimens of hitherto undescribed blood filariæ of birds. Further objects illustrated the life-history of the intestinal parasite (ankylostoma duodenale) of the chimpanzee. Close by this interesting demonstration Mr. J. Mackenzie Davidson exhibited some very pretty stereoscopic transparencies of electrical discharges, and also some stereoscopic skiagrams of bullet wounds, the photographs having been taken during the South African war. The exact position of the bullet is shown by mere inspection in the stereoscope. Mr. Eric S. Bruce's meteo-parachute, a new instrument for investigating the upper atmosphere, attracted a deal of attention by reason of its ingenuity and promised usefulness. It consists of a parachute containing the instruments—thermometers, for example—attached to a balloon. By means of a clockwork arrangement the parachute may be made to detach from the balloon at any given moment, bringing the record of observation gently and gracefully to the feet of the investigator. In fact, the meteo-parachute ensures the safe return of the recording instruments to the ground at any moment that the experimenter determines before the ascent of the balloon.

We understand that the usual second conversazione of the Royal Society, an event generally known as Ladies' Night, will not be held this year owing to the death of Queen Victoria.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6517 births and 3799 deaths were registered during the week ending May 4th. The annual rate of mortality in these towns, which had been 19·7, 18·9, and 18·4 in the three preceding weeks, further declined last week to 17·3 per 1000 of the population, provisionally estimated, on the unrevised results of the recent census, to be 11,469,114 persons in the middle of the year. In London the death-rate was 16·7 per 1000, while it averaged 17·7 in the 32 large provincial towns. The lowest death-rates in these towns were 9·7 in Croydon, 11·5 in Leicester, 12·7 in Wolverhampton, and 13·2 in West Ham; the highest rates were 21·3 in Sunderland, 21·6 in Bolton, 24·1 in Gateshead, and 26·5 in Swansea. The 3799 deaths in these towns included 394 which were referred to the principal zymotic diseases, against 346 and 363 in the two preceding weeks; of these, 133 resulted from whooping-cough, 107 from measles, 55 from diphtheria, 45 from diarrhœal diseases, 34 from scarlet fever, and 20 from "fever" (principally enteric). No death from any of these diseases was registered last week in Croydon, Plymouth, Huddersfield, or Halifax; in the other towns they caused the lowest death-rates in Wolverhampton, Norwich, and Oldham, and the highest rates in Portsmouth, Bolton, Hull, and Gateshead. The greatest proportional mortality from measles occurred in Portsmouth, Liverpool, Bolton, Hull, and Gateshead; from scarlet fever in Preston; from whooping-cough in Swansea, Birmingham, Derby, Manchester, Bradford, and Hull; and from diarrhœal diseases in Swansea. The mortality from "fever" showed no marked excess in any of the large towns. The 55 deaths from diphtheria included 20 in London, six in Sheffield, five in Salford, four in Manchester, and four in Leeds. No fatal case of small-pox was registered in any of the 33 towns; and no small-pox patients were under treatment during last week in any of the Metropolitan Asylums hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 1705, against 1601, 1526, and 1522 on the three preceding Saturdays; 371 new cases were admitted during the week, against 205, 150, and 198 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 374 and 286 in the two preceding weeks, further declined last week to 251, and were 78 below the corrected average. The causes of 45, or 1·2 per cent., of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Nottingham, Salford, Leeds, and in 13 other smaller towns; the largest proportions of uncertified deaths were registered in Swansea, Liverpool, Halifax, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 24·1 to 22 9 per 1000 in the four preceding weeks, further declined to 21.2 during the week ending May 4th, but showed an excess of 3 9 per 1000 over the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 18·9 in Leith and 19·4 in Aberdeen to 24·0 in Dundee and 25 0 in Greenock. The 666 deaths in these towns included 39 which were referred to whooping-cough, 17 to measles, 12 to diarrhœa, eight to scarlet fever, three to small-pox, two to diphtheria, and two to "fever." In all, 83 deaths resulted from these principal zymotic diseases last week, against 95, 117, and 120 in the three preceding weeks. These 83 deaths were equal to an annual rate of 2·6 per 1000, which was 0·8 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of whooping-cough, which had been 51, 56, and 62 in the three preceding weeks, declined again last week to 39, of which 16 occurred in Glasgow, 15 in Edinburgh, and eight in Dundee. The deaths from measles, which had increased from 16 to 25 in the four preceding weeks, declined again to 17 last week, and included six in Glasgow, four in Edinburgh, four in Leith, and two in Paisley. The fatal cases of diarrhœa, which had been 23 and 13 in the two preceding weeks, further declined last week to 12, of which four were registered in Glasgow, three in Edinburgh, two in Aberdeen, and two in Leith. The eight deaths from scarlet fever corresponded with the number in the preceding week, and included six in Glasgow. The fatal cases of small-pox, which had been six, 10, and three in the three preceding weeks, were again three last week, and were all recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 130 and 169 in the two preceding weeks, declined again last week to 125, but slightly exceeded the number in the corresponding period of last year. The causes of 40, or more than 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 35 6, 35·4, and 29 4 per 1000 in the three preceding weeks, further declined to 26·5 during the week ending May 4th. During the past four weeks the death-rate in the city has averaged 31·7 per 1000, the rate during the same period being 17·8 in London and 23·8 in Edinburgh. The 176 deaths of persons belonging to Dublin registered during the week under notice were 19 below the number in the preceding week, and included 13 which were referred to the principal zymotic diseases, against 18 and 10 in the two preceding weeks; of these, nine resulted from whooping-cough, two from "fever," and two from diarrhœa. These 13 deaths were equal to an annual rate of 2·0 per 1000, the zymotic death-rate during the same period being 1·7 in London and 4 2 in Edinburgh. The fatal cases of whooping-cough, which had been nine and eight in the two preceding weeks, rose again last week to nine. The deaths from "fever," which had been two, three, and one in the three preceding weeks, rose again to two last week. The 176 deaths in Dublin during the week under notice included 22 of children under one year of age and 43 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons showed a decline from the numbers recorded in the preceding week. Two inquest cases and two deaths from violence were registered; and 62, or more than a third, of the deaths occurred in public institutions. The causes of five, or nearly 3 per cent, of the deaths in the city last week were not certified.

THE SERVICES.

Royal Navy Medical Service.

THE following appointments are notified:—Staff Surgeons: A. E. Weightman to the *Pegasus*, and G. T. Collingwood to the *Diadem*. Surgeon B. Scribner to the *Duke of Wellington* for disposal.

Royal Army Medical Corps.

Brigade-Surgeon-Lieutenant-Colonel James Duncan, 3rd Volunteer Battalion the Manchester Regiment, is granted the temporary rank of Lieutenant-Colonel whilst serving in South Africa. Major Samuel Cowell Philson is seconded for service on the staff. Lieutenant Graham is ordered from Aldershot to Lichfield for duty. Lieutenant Wood has arrived at Aldershot and has been posted to the Depôt. Lieutenant Davies is appointed to the medical charge of the 1st Infantry Brigade at Aldershot. Lieutenants A. D. Jameson and H. R. Bateman hold themselves in readiness to embark for service in Egypt. Lieutenant H. E. M. Douglas, V.C., D.S.O., on arrival from England, is posted to the Decsa District.

Army Medical Reserve of Officers.

Surgeon-Major J. J. A V. C. Raye, who resigned his commission on Sept. 15th, 1897, is granted, in recognition of his service in the field, permission to retain his rank and wear the prescribed uniform.

Volunteer Corps.

Artillery: 1st Dorsetshire (Southern Division Royal Garrison Artillery): Surgeon-Lieutenant D. J. Lawson to be Surgeon-Captain. 1st Monmouthshire: Surgeon-Captain D. T. Richards resigns his commission. *Rifle:* 3rd Volunteer Battalion the Gloucestershire Regiment: Thomas Moravian Carter to be Surgeon-Lieutenant. 2nd Volunteer Battalion the East Lancaster Regiment: Charles William Crawshaw to be Surgeon-Lieutenant. 3rd Duke of Connaught's Own) Volunteer Battalion the Hampshire Regiment: Surgeon-Lieutenant H. M Brownfield to be Surgeon-Captain. 1st Volunteer Battalion the Buffs (East Kent Regiment): Surgeon-Lieutenant E. A. C Baylor resigns his commission. 1st (Pembrokeshire) Volunteer Battalion the Welsh Regiment: Surgeon-Lieutenant-Colonel G. Griffiths retires, with permission to retain his rank and to wear the uniform of the battalion on retirement. 6th (Fifeshire) Volunteer Battalion the Black Watch (Royal Highlanders): Supernumerary Surgeon-Captain C E. Douglas to be Surgeon-Captain on the Establishment. 2nd Volunteer Battalion the Queen's Own (Royal West Kent Regiment): Surgeon-Lieutenant R. A. Fegan to be Surgeon-Captain.

Volunteer Medical Staff Corps.

The Glasgow Companies: Surgeon-Major G. T. Beatson to be Surgeon-Lieutenant-Colonel. The Manchester Companies: William Riddell Matthews to be Surgeon-Lieutenant; Charles Edward Preston to be Surgeon-Lieutenant.

Volunteer Officers' Decoration.

The King has conferred the Volunteer Officers' Decoration upon the undermentioned officers of the Volunteer Force: *North-Eastern District: Rifle:* 2nd Volunteer Battalion the Lincolnshire Regiment: Surgeon-Lieutenant-Colonel George Frederick England. *North-Western District: Rifle:* 2nd Volunteer Battalion the King's (Liverpool Regiment): Surgeon-Lieutenant-Colonel George Westby; 2nd Volunteer Battalion the Loyal North Lancashire Regiment: Surgeon-Lieutenant-Colonel Edward Morton Garstang. *Scottish District: Artillery:* 1st Edinburgh (City) Volunteer Artillery: Surgeon-Major George Ritchie Gilruth. *Rifle:* 2nd Volunteer Battalion the Gordon Highlanders: Surgeon-Major Walter Smith Cheyne. *Southern District: Rifle:* 3rd (Duke of Connaught's Own) Volunteer Battalion the Hampshire Regiment: Surgeon-Captain Charles Sage Ticehurst.

Mentioned in Despatches.

In a despatch from Lord Kitchener, G.C.B., &c., Commander-in-Chief, South Africa, to the Secretary of State for War, dated Army Headquarters, Pretoria, March 8th, 1901, the following officers are mentioned for valuable services rendered:—Major F. Daly, R.A.M.C.; Lieutenant C. Challis, R.A.M.C.; Civil Surgeon G. Mowatt, attached R.A.M.C.; Civil Surgeon V. Robinson, attached R A.M.C.; Civil Surgeon Ellis, attached R A.M.C.; Civil Surgeon Caldwell, attached R.A.M.C.; Civil Surgeon Simpson, attached R.A.M.C.; Captain T. A. Green, New South Wales Medical Corps; and Surgeon-Captain S. C. Godfray, New Zealand Mounted Rifles.

Although he is not a member of the medical profession we are pleased to note that Sir Savile B. Crossley, whose benevolence and connexion with the Prince of Wales's Hospital Fund and the Metropolitan Hospital Sunday Fund are well known, is mentioned in Lord Kitchener's despatches.

AFFAIRS IN SOUTH AFRICA.

There is little or nothing of a decisive character to chronicle in the way of war news from South Africa. The losses in stores, ammunition, cattle, and vehicles on the part of the Boers have become chronic, but the enemy continue their elusive tactics and the battle which we were told was imminent with Delarey's force in the western Transvaal never came off. It seems only necessary for an announcement of this sort to appear in the papers for it not to happen. Nor should this be any matter for surprise, for the only practicable policy for the Boers to pursue at the present time is to abandon a position when pressed and to split up into small bodies and to scatter their forces. They are only likely to attack when in greatly superior numbers and to confine their attention mainly to raids on railways. Apart from the difficulty entailed by the vast extent of territory which has to be defended by the British, the Boers still seem to have little or no difficulty in obtaining information as to our intended movements. If we may judge from what we hear from correspondents in South Africa the belief is that this will continue so long as so many means of communication with the Boers remain open. The experiment of establishing a field force canteen, initiated under the management of Colonel Morgan, Director of Supplies, for supplying the troops with extra necessaries at cheap rates, has proved very successful. The system is being widely extended and is likely to prove a great boon to the troops. The plague continues to make progress in South Africa. The total number of cases since the outbreak of the disease is 572, of which 250 have terminated fatally. The debarkation of troops will probably have to be transferred from Cape Town to other uninfected ports, and as a preventive measure, Green Point, the principal camp near Cape Town, will probably have to be removed to another site. The large stock of commissariat stores and grain accumulated there attracts, of course, large numbers of rats which it is necessary to exterminate. Enteric fever is still prevalent, although to nothing like the extent that it was, and cases of dysentery are of frequent occurrence, but, taken as a whole, the British troops are healthy, though heartily sick of following a foe who never stands but always runs on their approach and takes every opportunity of "sniping" from safe and concealed cover. The following is the last published official return of our losses:—

—	Officers.	Non commissioned officers and men
Total reduction of the military forces through war in South Africa:—		
Deaths in South Africa	714	14,264
Missing and prisoners	7	774
Invalids sent home who have died	4	314
Invalids sent home who have left the service as unfit	—	2,493
	725	17,845
Total	18,570	

SOUTH AFRICAN WAR NOTES.

Civil Surgeon D. Massey-Burnside is reported dangerously ill with enteric fever (Harrismith, May 5th).

The following officers are returning home:—Major R. E. Kelly, R.A.M.C., Captain P. Evans, R.A.M.C., and Civil Surgeons Fry, L. H. Stephens, R. M. Geach, Charnley Smith, J. S. Warrack, and C. A. Peters.

Lieutenant W. H. Odlum, R.A.M.C., is reported slightly wounded doing duty with General Rundle's force April 24th.

THE LATE HONOURS GAZETTE.

The *Broad Arrow* of May 4th, 1901, says: "The officers of the R.A.M.C. are generally of opinion that a slight has been cast on the head of their department owing to the name of the Director-General having been omitted from the recent Honours' List. The Quartermaster-General and the Director-General of the Ordnance have been granted rewards for their services in connexion with the war, but the head of the Medical Department of the Army, whose duties have been most onerous, has received no recognition of his labours. The present Director-General has been a C.B. for several years, so that at least a K.C.B. might have been conferred upon him, considering that this honour has been held by every former Director-General of the Army Medical Department. It is therefore not surprising to find that the officers of the R.A.M.C. regard the omission in question as a pointed want of appreciation of good work. The Director-General was in no way responsible for any shortcomings of the medical arrangements in South Africa, and it is pretty certain that if the late Secretary of State for War had acted at first on the advice tendered by the Director-General on departmental matters much of the confusion and inability to cope with the enormous difficulties which have since beset his department in the present campaign would have been avoided." Another reference to this matter will be found on page 1350.

MEMORIAL TO THE LATE MAJOR HILLIARD.

A granite memorial column, designed by Mr. A. Y. Nutt, architect, has been dispatched by Messrs. Fountain and Co., Eton, to Durban, to be fixed at Newcastle, South Africa, in memory of Major George Hilliard, R.A.M.C. The inscription on a brass plate runs as follows: "Sacred to the memory of Major George Hilliard, R.A.M.C., who died at Newcastle, September 7th, 1900, from wounds received in a reconnaisance near Ingogo on the 5th.

Soldier of Christ, well done;
Praise be thy new employ,
And while eternal ages run
Rest in thy Saviour's joy.

Erected in grateful remembrance of the devoted care he rendered her husband by Beatrice, Princess Henry of Battenberg."

The *London Gazette* of May 7th contains the following:—"*Errata.*—The name of the officer brought to notice for his services in South Africa is Major Roger Kirkpatrick, Royal Army Medical Corps, No. 4 Stationary Hospital, and not as stated in the *Gazette* of Feb. 8th, 1901 (page 948), and April 16th, 1901 (page 2618).—The description of the undermentioned officer brought to notice for his services in South Africa in the *Gazette* of April 16th, 1901, and appointed Companion of the Distinguished Service Order in the *Gazette* of April 19th, 1901, is as now stated:—Surgeon-Major W. T. F. Davies, Imperial Light Horse (page 2610, April 16th, 1901, and page 2702, April 19th, 1901)."

A correspondent of the *Times* calls attention to the fact that while others have been sent home R.A.M.C. Volunteers, after more than a year's service, are being detained in South Africa, in many cases (for instance, where they are medical students) with much detriment to their future. No doubt the official reply would be: "They volunteered till the war was over"; but, surely, the correspondent continues, the authorities cannot wish to make volunteering unpopular among a class of men who offered valuable services freely.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the President, Vice-President, and Council held on May 7th the following examiners were elected:—Anatomy, A. Birmingham and A. Fraser; Surgery, H. Gray Croly and R. F. Tobin; Biology, J. J. Burgess; Ophthalmology, A. H. Benson and W. Story; Pathology and Bacteriology, A. H. White; Pathology, G. B. White; Midwifery and Gynæcology, F. W. Kidd; Sanitary Law and Vital Statistics, J. C. H. B. Goulding; Engineering and Architecture, J. C. Wilmot; Dental Surgery and Pathology, D. Corbett and W. Story; Mechanical Dentistry, G. M. P. Murray and W. Booth Pearsall; Chemistry and Physics, E. Lapper and J. R. Montgomery; Languages, L. J. Woodroffe; and Mathematics, Physics, Dictation, and English Essay, J. W. Tristram.

Correspondence.

"Audi alteram partem."

"RE-ORGANISATION OF THE ARMY MEDICAL SERVICE."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of April 27th, p 1224, you have given us your proposals on the above subject in sequence to your summaries on the South Africa Commission, and as one having a profound belief in the potency of the medical and sanitary sciences to secure the physical efficiency of the military force during peace and war, and retaining a strong interest in the Army Medical Service despite retirement for some five years after 35 years spent in it, I would like to offer a few remarks on this important topic.

Now the South Africa Commission in their recommendations, very rightly in my opinion, express no desire to alter in any way the existing framework of the Royal Army Medical Corps; they favour no change in the system which now places under it the charge of the health of the army and the care of the sick and wounded; they recognise the necessity of its officers being at the head of each administrative and executive sphere; and so far as *materiel* is concerned they limit their suggestions to an increase of the amount of it and an improvement in the ambulance and the hospital marquee. The modifications they do suggest concern mainly the *personnel*—the development of a professional staff well fitted by ability and numbers when supplemented by an efficient nursing staff of female nurses and trained orderlies and a sufficiency of material means to reasonably safeguard the well-being of the army in peace and insure as full care of the sick and wounded in war as military exigencies may permit; and they propose to effect this end by an expansion of the present *personnel* and the formation of an efficient reserve, by attracting into the corps medical men of good professional attainments, by retaining them at a high level through furnished opportunities to inform themselves on all scientific advances and by selecting men for the higher posts for professional merit rather than by seniority, and by the employment of officers of the Royal Army Medical Corps in army sanitary work in peace and war. Such, tersely put, are the lines drawn out in the proposed re-organisation, and I infer from your remarks preceding your respective recommendations under definite headings that you are in accord with the Commission on these principles and that the 19 proposals you bring forward are to be regarded not as supplanting but as supplementary to them, embracing topics not touched upon by the Commission as a rule; and I think that no one with practical knowledge of army work and its requirements will fail to see the importance of the suggestions you make. That the departmental or other official committee suggested by the Commission for the drawing up of the necessary details to give a working expression to their opinions will have plenty of material to operate upon is apparent, and as it seems to me the duty of all to help on this important future work with the view of making the scheme as hopeful as possible I would like to make a few comments on some of your suggestions.

In respect to "the status of the Director-General" I would suggest, in addition to your proposals under this heading, the desirability of emancipating him and the department from their present complete subordination to the Horse Guards section of the War Office, and the necessity of this official being always drawn from the corps and selected solely on administrative and professional grounds; and in him and an improved "headquarters bureau" should be vested the power and responsibility of selection throughout the corps and of all advancements of officers to higher posts, be the grounds and occasion what they may.

In respect to your proposals touching the Army Medical School and its transfer to London it is desirable to bear in mind that at present it and the Netley Hospital are closely associated and that the former is vastly enhanced in value by the latter. When the school was formed the subjects taught in it were not elsewhere taught—a feature no longer pertaining to it—and its present value *per se* is probably to be found in its moulding the knowledge obtained in the civil schools to the requirements of the military sphere and teaching the professional care of the wounded during war. Through its association with the hospital the student can obtain a practical knowledge of army diseases, their morbid anatomy, and war injuries not elsewhere obtainable, as well as a practical initiation into the routine of military hospital duties To remove the school alone to London would deprive it of this most valuable adjunct. If both school and hospital could be transferred to a site sufficiently near London to allow of full action of the military and civil professional elements, the one or the other, gain would unquestionably result. Hence the view I take, after several years of work in the school, is that to the medical candidate loss, not gain, would result by its transfer alone to London; while as regards the medical officer returning from foreign service he is far more likely to find his wants better supplied in civil hospitals and schools than in a course of instruction as at present given at the Netley School or in the practice of its hospital. That the school might be overhauled with advantage may be advanced without aspersion on its present staff, and that gain would result by re-transfer to Netley, or wherever the school and hospital might be located, of the Aldershot establishment for orderly and military instruction—bereft of it to the well-recognised disadvantage when effected many years ago—will probably be agreed to by those having had former experience of the good results of the combination.

With regard to the proposed abolition of the entrance examination, if I mistake not its original purpose was two-fold—to allow of the placement of men in accord with the results of competition and to obtain by a higher qualifying test than that in force in civil life a class of men, for what was then considered the highly important sphere of medical military work, above the ordinary professional average. For many, many years past competition has disappeared—a regretted relic of the early sixties and Mr. Sidney Herbert's noble work—and the difficulty has been to get men in any way, and the present examination test—that of the London Conjoint at least, though whether all other boards conform to this standard may be questioned—is a sufficient guarantee of ability for military medical duty, hence there are strong *prima-facie* grounds for its abolition, especially when the present system of nomination to appointments is borne in mind. Yet some means of grading the candidates is necessary, and if the subjects taught in the Netley School are to be taken for the purpose, in what way is the quality of those who have held hospital posts and possess degrees and high diplomas to obtain proper recognition? Under such a plan those better men who have probably given an extra year or two in obtaining this extra quality may find themselves placed not before but on an equality with, or even below, men younger than themselves—no small disadvantage with the present time limits to promotion to the higher posts and retirement on good and full pension. And with respect to the proposed substitution of an examination within the first 10 years of service with its two grades of pass and honours if the end of the honour attainment is to rest with the "asterisk or some distinguishing letters" after the name in the Army List (more than probable unless the whole system of promotion be changed) the advantage to the individual so distinguishing himself is not discernible. If I may express an opinion it is to the effect that some test (for instance, an examination not necessarily identical with that already passed for qualification but embracing subjects specially selected for the purpose) at entrance is necessary for *all* applicants for army employ to give fair play to those eminently desirable individuals possessing degrees or having had practical experience in hospital posts or otherwise, and that the examination after entrance—say at eight or ten years—should be in character both qualifying and competitive, the officers so placed under the latter phase to advance to the next grade in advance of the merely qualifying men, thus bringing in the stimulus of personal professional improvement at an early period in the career of the individual as well as, as suggested, at the later period when he is reaching the administrative grade.

With these comments on those of your valuable proposals which seem open to criticism, will you allow me, Sirs, to express my regret at not finding greater stress laid by you on the necessity of making professional ability, merit, and work one chief ground for promotion in the corps of the future in order to engender that healthy stimulus to scientific advance which alone can insure a thoroughly efficient body of officers for the important medico-chirurgical hygienic army work?

True, you express the opinion that there should "be far more rewards held out for professional merit," yet as you previously remark that "there are no means, or very few, of rewarding medical officers for professional distinction or scientific work in the service," a hopeless *impasse* is brought about unless the way be opened up by advance from one grade to another. You mention that "promotion by selection has been apparently attended with so many difficulties that it has never been strictly adhered to," but is it not more in accord with fact to say that in spite of the Royal warrant after the Crimean inquiry it has never yet been put in practice, if ever suggested, by the powers that be, Commander-in-Chief or Director-General? There has been no difficulty in advancing men on various grounds other than professional with the dangerous result (probably explanatory of some of the asserted shortcomings) of showing the corps that so far as advancement was concerned the very *raison d'être* of its existence was the one point which could be safely ignored. It is sincerely to be hoped that this great motive force for progress in all avocations in life will receive full recognition in the proposed re-organisation, for without it where is the attraction for the "talented alumni of our schools and colleges," what avails the most perfect material fabric? It was recognised as necessary in 1858, why is it less necessary in 1901? The hopes then held out brought full competition into play and an excellent class of men into the service in 1860-61 and thereabouts; these hopes were never realised, and we know the degraded condition into which the department passed from this and other reasons; and are these sad experiences to be ignored in the future?

Well, Sirs, we all look for a good issue to this South African inquiry, but it may be safely said that unless the corps be freed from the trammels of so many of the War Office sections now potent to mar it, and allowed to advance and develop itself on its own self-knowledge and on business principles, no scheme, however otherwise complete, will avail to give the nation what is required in order to prevent a repetition of the past disasters.

I am, Sirs, yours faithfully,
FRANCIS H. WELCH, F.R.C.S. Eng.,
Surgeon Colonel (retired) Medical Staff.
Brandram road, Lee, S.E., May 4th, 1901.

To the Editors of THE LANCET.

SIRS,—You were good enough to publish in THE LANCET of May 4th, p. 1300, a letter of mine suggesting the formation of an army medical school for the purpose of training students for the Army Medical Corps. I purpose this week to trespass again on your space in order to give my scheme in more detail.

1. Entrance to the school should be by competitive examination in arts. The examination should be held at the same time as the examination for Sandhurst and the papers should be the same. Age-limits should be 16 to 18 years.

2. The course at the school should be of five years' duration, and the examinations for which the student should be prepared the M.R.C.S., L.R.C.P. Lond. The order of passing out should be determined by success at the college examinations.

3. I would make the school somewhat on the lines of Cooper's Hill—i.e., I would offer a limited number, according to vacancies, of appointments in the navy, army, Indian, and colonial services to candidates who had done best at their first two examinations.

4. Students at the college should be under military discipline the whole time. For the army and navy candidate discipline is essential, and the others will be no worse for it.

5. During part of the vacation the army and Indian candidate should be sent to Aldershot to learn riding and bearer-company work.

6. Where should this school be? It must, of course, be at a great medical centre and I think it resolves itself practically into the choice of four centres—London, Edinburgh, Cambridge, or Dublin. Dublin is not desirable, being the wrong side of St. George's Channel. Cambridge, though probably most pleasant, cannot give the clinical experience necessary. It resolves itself, I think, into a choice between Edinburgh and London. Edinburgh offers many advantages, such as the great facilities for teaching, the ease with which a wing of the hospital could be reserved for candidates from the army school, the healthy situation, and its great opportunities for sport of all kinds. London, on the other hand, has one great advantage—viz., its proximity to Aldershot. If London be chosen I would suggest that the school be attached to the West London or some other hospital where students are not at present working.

7. Numbers. About 30 commissions are required a year for the navy, 30 for the Royal Army Medical Corps, 30 for the Indian Medical Service, and say 10 for colonial appointments. Total for the year, 100. Grand total for five years 500. Allow an extra 100 or so, and you have a school of 600 men, which is quite sufficient for working purposes.

8. Expense. I would make ordinary candidates pay £120 a year—sons of officers to be given a reduction—as at Sandhurst or Woolwich. All necessary examination fees to be paid by Government.

9. Failure at examinations to be satisfactorily explained, with the alternative of dismissal.

10. The head of the school to be a surgeon-general, assisted for purposes of discipline by officers of the Royal Army Medical Corps. The teaching staff to be well-paid civilians.

11. On "qualifying" commissions should be granted and the most deserving officers should be given "house appointments."

12. Officers should then be given a short course of military hygiene, medicine, and surgery as at present, but this course should be transferred from Netley to the Army Medical School.

These suggestions are, of course, open to many objections, but I feel certain that if the State wants army medical officers of the right stamp they must take the trouble to train them up carefully from the first, as they train the "sapper" and "gunner."—I am, Sirs, yours faithfully,

May 6th, 1901. R.A.M.C.

"THE ACTION OF ARSENIC AS OBSERVED DURING THE RECENT EPIDEMIC OF ARSENIC POISONING."

To the Editors of THE LANCET.

SIRS,—I am moved to write to you by an allusion to me in Sir T. Lauder Brunton's article in THE LANCET of May 4th, p. 1259. Not that I have anything to complain of (unless of one rather too unqualified statement attributed to me), but only that if the facts are (as they appear to Sir Lauder Brunton to be) "remarkable" or interesting in any degree in connexion with a subject which has been investigated by a Royal Commission, it is well that they should be on record in your columns exactly as I stated them to Sir Lauder Brunton and others near the commencement of the "arsenic scare." At the time in question (about 16 years ago, I think) the late Dr. James Ross had been much occupied with what he and others then called "alcoholic paralysis," and in a general way I had been struck with the paucity of instances of this disease (assuming it to be a separate disease and rightly so named) in Glasgow. Being well aware, however, how easy it is to overlook a disease which is unfamiliar, I asked Dr. Ross to be so kind as to demonstrate to me several cases, of which I think he said that he had about half a dozen in his wards at the time. I was much impressed with the novelty, to me, of the whole *symptomen complex* and told Dr. Ross so, adding that if this form of paralysis was really "alcoholic" I should have expected it to be quite as common and as well defined in Glasgow as in Manchester. The latent conviction then in my mind was that there was some other toxic agent rather than the alcohol, though associated therewith, that underlay the etiology of the affection. Further observation for several years only confirmed me in this view, though I never committed myself to such an unqualified statement as that the disease "did not exist in Glasgow." Indeed, both in hospital and in private practice I saw a sufficient number of cases to assure me that my diagnosis previously had not been at fault, but at the same time to confirm generally the view that alcohol could not be the sole, or even the most essential, cause of the disease. The rapidly extending literature of peripheral neuritis and the comprehensive and valuable posthumous work of Dr. Ross (in conjunction with Dr. Judson Bury) were most carefully studied by me and became the basis of my clinical teaching on this subject, but still without any clear light occurring as to what the detrimental substance was until the "arsenic scare" arose, when I felt it to be my duty to tell in various quarters my previous experience as a contribution to the history of the subject.

I am, Sirs, yours faithfully,
W. T. GAIRDNER.
Edinburgh, May 6th, 1901.

"LEGISLATION AGAINST NATIONAL INTEMPERANCE"

To the Editors of THE LANCET

SIRS,—Dr T S Clouston[1] is perfectly right in denouncing my comparison of the craving for alcohol to an instinct (an inborn trait) I made it in my first publication, but soon becoming conscious of my error, substituted for it a truer definition in subsequent publications with some of which Dr Clouston is acquainted[2] No critic had then commented on it, and Dr Clouston is the first to do so This by the way Meanwhile, I do not know that any good can come of the present controversy unless we keep to the main points at issue We deal with a very grave matter, and are not, I hope, mere dialecticians

I stated originally that, on biological grounds, temperance reform was impossible, and could lead ultimately only to increased drunkenness I propounded an alternative remedy My opponents declared it impracticable "Very well," I replied, ' what, then, is your remedy? Temperance reform! But temperance reform has been tried for thousands of years, and has almost invariably failed It has been tried lately on a very large scale in the modern civilised world will you mention a single instance in which it has succeeded under conditions half as onerous as the least onerous that exist anywhere in England? I personally am prepared to prove that all such attempts have resulted in increased drunkenness as well as in many other attendant evils" In effect my opponents reply "We cannot tell you of such a case But that is not the point We are able to tell you of something entirely different—of instances in which temperance reform has done some good under conditions remotely unlike those which prevail in England, under conditions which are rapidly disappearing from the civilised world, and under which not one civilised man in a thousand now lives Moreover, you are a pernicious person, your opinions are very dangerous We implore you not to put a spoke in the wheels of temperance reform Let the reformer continue his beneficent work We are astonished at your lack of humour and at your persistence"

I do not exaggerate in the least It all seems to me very Gilbertian, but I daresay that that is owing to my Scottish lack of humour I confess I am somewhat bewildered If I am wrong, it is so very easy to prove me wrong An immense mass of data is to the hand of every student If I am right, the temperance reformer is—well, not precisely a beneficent person He does not reform and prohibition does not prohibit

"How drunkenness has greatly increased in Norway of late years on a greatly diminished quantity of alcohol" passes Dr Clouston's comprehension I have already explained that it is through the extinction of the moderate drinker. The moderate drinker is easily deterred by prohibition, the drunkard will go through fire and water to obtain the satisfaction of his desires I am sorry to contradict an opponent so courteous, but as a fact he is in error Messrs Rowntree and Sherwell state in the plainest terms that both drunkenness and the *per capita* consumption of alcohol have increased during recent years in Norway[3]

Dr Clouston complains that police returns are very fallacious He is quite right Here is an example It shows how police returns are affected by prohibition—by "temperance reform" In Portland the arrests for drunkenness have increased from 16 per 1000 for the years 1852–1856 to 42 per 1000 for the years 1898–1899 The late General Neal Dow, the great protagonist of reform speaking in Portland in 1893, said "When I was mayor (in 1851) every man who indicated that he was drunk was arrested but now they do not do that unless the man is noisy and disturbing the peace"

The following is an example of how prohibition works I take it from the *Westminster Gazette* of May 19th, 1898 I am ready to quote any number of similar instances "The Clutha prohibition is not the only one we have had in New Zealand A local option law existed in this colony many years ago Under its provisions it was open to the people in any district to vote 'no licence' In the North Seventy Mile Bush, in the Hawkes Bay province in a township called Ormondville, a man who had drunk himself mad went home one day and murdered his wife and four or five children Naturally a thrill of horror passed through the district, and when the next local option poll was taken the people voted solidly and solemnly for 'no licence' The public houses in Makotutu, Ormondville, and Norsewood were closed for three years Did drinking and drunkenness cease? No The drinking customs of the people underwent a change for the worse; sly grog selling became rampant and more liquor was ordered for consumption in that district than ever before or since In private houses bottles were kept from which anyone might help himself, so long as he deposited the requisite sixpence per nip on the mantelshelf In more than one instance this led to the women of the household cultivating a taste for liquor Secret rooms were fitted up as bars where every kind of liquor was dispensed, and in some of these shocking scenes were witnessed Meantime the business of the township suffered, as travellers were compelled to pass on to neighbouring towns to obtain accommodation Visitors who had been in the habit of spending a few weeks in the bush for health's sake were prevented, for the same reason, from sojourning in the district Drunkenness and debauchery increased, and so soon as the prescribed period of prohibition had passed the people voted to reopen the hotels'

It is scarcely necessary to reply at length to Dr Gordon Sharp[4] It seems that he has "done Dr Archdall Reid the justice of reading most of, if not all, his letters and papers on this alcohol and heredity question," but he says, "I am afraid I have not yet grasped his meaning" All the points raised by him have already been dealt with in the publications he alludes to, and by this person and that my meaning appears to have been grasped clearly enough I greatly regret that I am unable to make myself comprehensible to Dr Sharp The fault is mine But Dr. Sharp betrays an intimate knowledge of a subject of which I am an eager student He says "All peoples have known alcohol in some form or other from their earliest antiquity" I have collected information on this point of most of the races of the world, but I am yet ignorant of the alcoholic history of a good many races—for example, the Terra del Fuegians the Patagonians, the Australasian natives and the Esquimaux I am ignorant even of the sources whence they could have drawn their supplies of alcohol Will Dr Sharp kindly inform me? I want precise details—references to this or that authority

I am, Sirs, yours faithfully,

Southsea, April 28th 1901 G ARCHDALL REID

To the Editors of THE LANCET.

SIRS,—Before this question passes away from the region of discussion, and in order that Dr Archdall Reid's views be not left in possession of the field, I beg to draw attention to an important fact which bears on the practical side of the matter Weismannism, with its allied doctrines, is far from being generally accepted by biologists, and Weismannism, as an articulated system of theories, stands or falls with the proof or disproof of the inheritance of acquired characters. Many educated persons feel as much interest in that doctrine and as much respect for it as Dr Johnson for a certain question in metaphysics which he dealt with by kicking a stone lying at his feet But the question of the *possibility*, not the frequent occurrence, of the transmission of acquired characters is vital to Dr Archdall Reid's position as to alcoholism Surely when first-rate biologists can write as Professor J Arthur Thomson[5] and Professor W K Brooks[6] on the need for further facts as to use inheritance it behoves those who deal with such profoundly important questions as that of national intemperance to walk warily and to speak humbly For this reason Dr Clouston's last and dignified rejoinder to his opponents is most valuable "Not proven" must be the verdict in this year of grace 1901 as to their much-disputed biological doctrine It may be remembered by your readers how very far Professor Berry Haycraft went in his Milroy Lectures for 1894 on Darwinism and Race Progress in the direction taken by Dr Archdall Reid and his friends He there boldly proclaimed tubercle, leprosy, zymotic diseases, and alcoholism as friends of the human race by virtue of their selective influence, though he refrained from that fatal love for strict orthodoxy which so generally characterises partisans, and maintained that syphilis, by virtue of its being a case of inherited "acquired characters," was an exception to the other friends of the human race, and, indeed, was an enemy. But he made a remark of extreme importance to such a painfully pressing matter as that before us, with which I will conclude. He says: "It is evident that in applying in practical matters the lessons that the biologists may teach us we must be certain that we are dealing with truths that will remain truths for this and for many generations."[1] I am, Sirs, yours faithfully,

---

[1] THE LANCET April 27th 1901, p. 1233.

[2] E g, the article in THE LANCET Oct. 14th 1899, p 1006, and the address in the *British Medical Journal* of Sept. 16th, 1899

[3] Op cit., pp 495–493.

[4] THE LANCET April 27th, 1901 p. 1233

[5] The Study of Animal Life, 1896, p. 336.

[6] The Foundations of Zoology, 1899, p. 73.

Blackheath, May 6th, 1901. WALTER KIDD.

THE DEATHS FROM (?) BOXING.

To the Editors of THE LANCET.

SIRS,—Surely the faculty ought to be able to help in throwing some sort of light on what appears to be a ghastly mystery in the matter of these last three deaths after boxing under apparently the safest of conditions—conditions non-existent in other clubs where great numbers of severe contests take place. The mystery has hitherto been treated as a *surgical* affair, but I cannot help thinking there is a *medical* aspect to it which may be worth while considering, especially as the mystery remains unsolved by the surgico-pathological theory. Admitting that intracranial hæmorrhage from a blow without fracture is "on the cards," I contend that, considering the millions of knocks, blows, and punches on the head which occur, it is most rare. In all these cases the boxing has been of such a high-class nature that no really violent blow was received on either side. In the first case, that of Turner, post-mortem examination revealed no lesion whatever—the only peculiarity that could be spoken of was that the heart was smaller than the average. Yet he had won an open competition, meeting the picked men in England, only a week or two before. He was to be married the week after the contest at the National Sporting Club and alone supported a widowed mother. What could he have died from but nerve collapse due to over-excitement and anxiety? Yet public opinion put it down very naturally to boxing, pure and simple—killed by it. In the cases of Riley and Smith the necropsy showed intercranial hæmorrhage with *no* external marks of violence, much less fracture. Now I put it in this way: if this "case" last week had been brought into the hospital, not as one from the National Sporting Club, but one found insensible, sitting on a doorstep, of course the strictest search would be made for signs of outward violence; finding none, post-mortem examination shows intercranial hæmorrhage. How would death be certified—from "violence" or from "natural causes"?

Apoplexy may be uncommon in the young and apparently healthy, but I contend that nerve tension would be much more likely to cause it than any outward violence, though the surgical evidence was that the hæmorrhage *could not* have arisen without external concussion. I have witnessed practically every round of the amateur boxing championships for the last 21 years, where infinitely more severe punishment is given and taken than in these three cases. St. James's Hall is packed from floor to ceiling, any amount of shouting and chaff being indulged in by the spectators, the din being terrific at times, yet never has anything serious happened to the boxers. Can it be that the very strict rule of "silence during the boxing" at the National Sporting Club has the effect of making the contest a much more intense mental strain to the competitor and conducing, therefore, towards nerve collapse and apoplexy? In all other clubs spectators are allowed to cheer or otherwise during the boxing, thereby letting off the steam of excitement for onlookers and competitors. The officials of the club must indeed be almost driven crazy at finding their well-intentioned efforts to provide for the safety of the boxers end in such lamentable failure, and to sportsmen who take an interest in boxing these deaths have been very pathetic and heart-breaking. One does not get "used" to these kind of sad endings to contests fought out, as they almost always are, with the best of good feeling and even generosity.

I am, Sirs, yours faithfully,
F. ORTON, M.D. Dub.

Crouch End, Hornsey, N., May 6th, 1901.

"THE MEDICAL PROFESSION AND THE FRIENDLY SOCIETIES."

To the Editors of THE LANCET.

SIRS,—My attention has been drawn to the letter of "W. E. T." in THE LANCET of May 4th, p. 1301. Will you allow me to advise him and his neighbours not to undertake medical attendance under the terms and conditions offered by the National Friendly Society, if by this he means the National Deposit Friendly Society? The Medical Guild has twice discussed the claims of this society and has on both occasions declined to work on its terms

I am, Sirs, yours faithfully,

Salford, May 7th, 1901. R. HANSON WOLSTENHOLME.

To the Editors of THE LANCET.

SIRS,—If the representatives of friendly societies and the General Medical Council will discuss their differences with the same spirit of fairness and anxiety for a definite settlement of the breach as is contained in Mr. Brabrook's letter, for which all medical men engaged in contract work will thank him, these constant disputes will soon be at an end. The wage-limit is a question upon which the friendly societies will never give in, and if the profession fight them on that question the result will be a further increase in the number of so-called "friendly societies medical institutions." The objects of these associations are laudable enough. It is often to be deplored that the friendly societies are under the impression that the medical profession attack the poor or working-classes who belong to these institutions; this is not so, the main cause for the dislike for these associations on the part of the profession is that they are largely composed of persons who can, and did formerly pay, a reasonable fee, and to fight against this we seem powerless. That the friendly societies do underpay their medical men can be proved over and over again. In Glasgow very recently a big lodge (A.O.F.) advertised for a medical man and offered 2*s.* 6*d.* per member per annum. He had to visit in a three-mile radius and find drugs, &c. A registered friendly society the members of which are nearly, if not all, employed at a Government dockyard offered 2*s.* 6*d.* per adult member and ½*d.* a week for each child and wife of the members. Again, at a recent conference of Friendly Societies several prominent members openly confessed that they underpaid their surgeons In my own district I have to pay an assistant £150, indoors My bill for drugs has considerably increased, the wages I pay have gone up—in short, my general expenses are much more than formerly. I have a colliery appointment and I put the question of a slight increase before the miners' committee and I met with refusal although I have been here since 1897, when the colliers got 25*s.*; in 1898, 27*s.* 6*d.*; in 1899, 29*s.* 4*d.*; in 1900, 33*s* 4*d.*; and in 1901, 34*s.* Wages have gone up generally, the working man's position has improved, and he can well afford to pay a fair sum for contract work. What is that sum?

I contend the majority of us would be satisfied with 4*s.* per annum for juveniles, 4*s.* per annum for adult male, and 5*s.* per annum for female, members. I have a club with 250 adult members who pay me 4*s.* per annum for each member, a sum I am satisfied to attend them for. They have established a juvenile club of 150 members, little boys and girls. They insist on my taking them at one halfpenny per member—6*s.* 3*d.* a week. This would mean about 4 per cent. on my list always. I pointed out that I would get nothing out of it, whereupon they threatened to withdraw the adult lodge or to join other societies in the establishment of an institution. It is in cases such as the one just cited where the friendly society members deal harshly with the doctor, in fact, any attempt on our part to combine with a view to remedy these grievances is looked upon by the trades union working man oddfellow as extremely aggressive. We only want what is fair and I hope Mr. Brabrook will use his influence with friendly societies towards that end.

I am, Sirs, yours faithfully,

May 6th, 1901. A COLLIERY SURGEON.

WATER IN BUTTER.—At the Bristol Police-court on April 30th a firm of butter manufacturers of Wellington, Somerset, were fined £21 for selling three samples of butter containing 28·3, 26 2, and 23·3 per cent. of water respectively.

---

[1] THE LANCET, Feb. 17th, 1894, p. 383.

GERMAN CONGRESS OF INTERNAL MEDICINE.

(FROM OUR BERLIN CORRESPONDENT.)

THE Congress of Internal Medicine met in Berlin on April 16th, Professor **SENATOR** being in the chair. In his inaugural address the chairman drew attention to the surprising improvements made in diagnosis during the century which had just closed. Not long ago a medical man could carry in his pocket all the instruments used for diagnosis, but at the present time even a Hercules would be overloaded with the bulky and complicated apparatus occasionally resorted to for diagnostic purposes. There was a time when diagnosis seemed to be the principal object of medical science and when a certain amount of "nihilismus" prevailed in therapeutics, but this was a thing of the past and diagnosis was now believed to be the essential preliminary of successful treatment. Professor Senator then mentioned some diseases the cure of which depended on an *early and exact diagnosis by modern methods, including the* use of the microscope, and closed his speech with the words, "Qui bene diagnoscit, bene curat." The first papers read before the congress were on subjects connected with the heart.

Cardiac Tonics.

Professor **GOTTLIEB** (Heidelberg) said that in disorders of the circulation the distribution of blood within the organism became altered and that by the use of cardiac tonics or vaso-motor stimulants the normal state might be restored. He described the distribution of blood in vaso-motor paresis where there was plethora of the abdominal circulation and anæmia of the peripheral circulation, the brain, and the skin. In this condition, which was due especially to poisoning or to acute infectious diseases, cardiac tonics were useless because the action of the heart was normal. Vaso-motor stimulants, however, acting on the splanchnic nerves might bring about an alteration in the distribution of the blood, compounds like strychnine, caffeine, and camphor being indicated, but not digitalis. Digitalis was useful when the action of the heart was feeble, for it increased the power of the heart, and Professor Gottlieb had found by experiment that under the influence of digitoxin the energy of a ventricle became three times stronger than before. An improvement of the pulse took place because the contractions of the heart-muscle became not only stronger but also less frequent, owing to the action of digitalis on the vagus nerve Digitalis also produced a contraction of the blood-vessels Camphor did not increase the force but only the irritability of the heart; its action was therefore only temporary; caffeine was useful when the blood-pressure in the aorta was high because it aided the heart to surmount such pathological resistances in the circulation. Alcohol also diminished the resistance because it dilated the blood-vessels.

Professor **SAHLI** (Berne) read a paper on the same subject. He said that a stagnation of the circulation might depend upon a variety of causes, and he distinguished four forms—viz.: (1) cardiac stagnation produced by an insufficient systole as well as by a mechanical hindering of the systole; (2) respiratory stagnation occurring in diseases of the respiration; (3) vaso motor stagnation produced by a paresis of the vessels of the great circulation; and (4) splanchnic stagnation with plethora of the abdominal and anæmia of the peripheric circulation. In all these cases digitalis was useful, but not in the so called essential stagnation—the condition which existed when in valvular endocarditis the defect of a valve had become so great that even in normal action of the heart stagnation was inevitable. The danger of digitalis was often exaggerated and if reasonably administered it might be given for a long time Professor Sahli finally explained the action of caffeine and camphor which were both vaso-motor stimulants and were valuable by reason of their action on the respiration and their diuretic effect As to the action of alcohol, he was of opinion that it did not produce a direct influence on the heart, but that it acted usefully by improving the circulation in shivering fits or when the reaction after a cold bath was insufficient. Professor Sahli finally explained how these compounds should be combined and administered.

Professor **SCHOTT** (Nauheim) was of opinion that practically there was no difference between cardiac tonics and vaso-motor stimulants. The principal requisite was to strengthen the heart.

Professor **GOLDSCHEIDER** (Berlin) said that the administration of digitalis ought never to be stopped at once, but smaller doses ought to be prescribed when the action of the drug was found to be too strong.

Professor **MENDELSOHN** (Berlin) reported some experiments on measuring the strength of the heart. The patient performed a certain amount of work in which the heart's action was increased and the interval after which it became normal again was noted.

Professor **KRAUS** (Graz) said that this experiment, to be valuable, must be repeated at certain intervals.

Professor **BAELZ** (Tokio) pointed out that the differences in individuals were very great; in Japanese messengers, for instance, who ran 100 kilometres (62 miles) a day without stopping, the pulse became of normal frequency almost at once after their work was done.

Artificial Hyperæmia as a Therapeutic Agent.

Dr. **BIER**, Professor of Surgery at Greifswald, on the invitation of the committee, read a paper on this subject. He said that he had used his method first in tuberculosis of the joints. It consisted in applying round the extremity above the affected joint a caoutchouc bandage which produced a constriction of the blood-vessels, stasis, and hyperæmia in the extremity. The bandage, if properly applied, might be tolerated for several hours at a time for many days. He had numerous favourable results in tuberculosis of the joints and accordingly had tried the method in rheumatic and gonorrhœal diseases of the joints. The venous stasis caused by the constriction was found to relieve the pains By the researches of Dr. Noetzel it had been proved that artificial hyperæmia had a bactericidal action and that the formation of fibroid tissue, and therefore cicatrisation, was promoted. Dr. Bier's artificial hyperæmia, moreover, arrested the absorption of the exudation, and this was especially important in rheumatic arthritis where this method was used together with massage.

Etiology of Acute Rheumatic Arthritis.

Dr. **SINGER** (Vienna) reported that he had made a microscopical examination of six cases of rheumatic arthritis and two cases of chorea. In every instance staphylococci and streptococci were present in the joints and in other organs. He was of opinion that rheumatic polyarthritis was an abortive form of pyæmia but that it was not caused by a specific bacillus, as suggested by some authorities.

Dr. **MEYER** (Berlin) held an opposite opinion. In 12 cases of rheumatic sore throat he had cultivated streptococci which when injected into animals produced exudations into the joints and serous membranes, endocarditis, and a condition very similar to acute rheumatic arthritis. The streptococci of rheumatic sore-throat had therefore a specific action.

Dr. **MENZER** (Berlin) said that he had succeeded in cultivating a streptococcus in endocarditis verrucosa which produced exudation into the joints and serous membranes *when injected into* the palate of rabbits. The *streptococci* found in rheumatic sore throat were not so virulent.

(To be continued.)

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The Consultative Institute.

IN THE LANCET of April 20th, p. 1171, it is noted that the authors of the Consultative Institute had made a change in their programme by advertising for a consulting physician and a consulting surgeon at a salary of £500 a year each. This was in place of the one consultant who recently resigned The holders of the office were to be debarred from private practice. Another change in the policy of the Institute has *just* been made in the form of a seductive inducement to outsiders It is now proposed to increase the number of the consultants to five and to give them each a sum of £200 a year with permission to engage in private practice also. An advertisement has appeared several times in the local papers for consultants and specialists for the posts of physician, surgeon, oculist, aurist, and gynæcologist. The remuneration offered is the fees of the patients less the working expenses, a minimum of £200 a year being guaranteed. A meeting of the Birmingham consultants and specialists was held at the Medical Institute on May 2nd, when the situation as indicated by the recent changes was considered. The general tone of the meeting was antagonistic to the Consultative Institute *in toto* on the present lines. The often-repeated objection to the ordinary consultants' fees was again made clear by the fact stated that the majority of consultants in the town are quite willing to see exceptional cases for a half-guinea fee. It was pointed out that the new Institute had no wage-limit or method of inquiry which would restrict its operations to the class for whom it was intended; also, that there was no representation of the profession upon its management, it being notorious that the present promoters had expressed themselves in terms most hostile to the interests of the profession. It is stated, on the other hand, that efforts are being made to draw the friendly societies of the town under the control of the Institute and so to influence the position of the general practitioners attached to them. However the medical attendant of one of these organisations may wish to make his choice of a consultant his recommendations will be of no avail if the society or club is affiliated to the new Consultative Institute. The present attitude of the profession is one of no surrender. It must be borne in mind that they have to deal with a determined opposition which shows little signs of compromise or conciliation.

A Crematorium.

The first annual meeting of the promoters of a crematorium for Birmingham was held on April 22nd. The report dealt mainly with the difficulties of finding a suitable site. Four months' search in many directions with various difficulties and objections resulted in obtaining a grant from General Calthorpe of an acre of land conveniently situated near the town at Perry Barr. Here it is proposed to erect the necessary buildings. The balance-sheet showed that 1239 shares of £5 each had been taken up and a donation of £500 had been received. There is every prospect of the project being carried through.

The Lying in Charity.

The fifty-eighth annual meeting of this charity was held on April 23rd. It was shown that much valuable work is done in an unostentatious way by the midwives and medical men connected with it Thus the number of cases attended during the year was 873, the services of the honorary medical officers being called for in 46 cases. The report of the medical committee emphasised the necessity of providing beds for difficult and operative cases, also of a provision for teaching and training nurses in this department. Some discussion took place, opinions being divided among the lay members as to the wisdom of making any changes from the present outdoor system of attendance. Serious reflection suggests the desirability of acting on the lines laid down by the medical committee which would be much to the public advantage. It is to be hoped that time will allow of these suggestions taking a practical and tangible form.

May 7th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Manchester Royal Infirmary: Retirement of Mr. James Hardie.

AT the meeting of the Board of Management of the Manchester Royal Infirmary held on April 29th, Mr. Hardie, having arrived at the "fixed period"—i.e., the age-limit of 60 years—sent in his resignation as honorary surgeon. The chairman, Sir F. Forbes Adam, said that it was a source of regret to the board when under the rules cf the institution a good man ceased to be actively connected with them. He moved:—

> That, in accepting with much regret Mr. Hardie's resignation the board desired to place on record their high sense of the valuable services rendered by him during the past 25 years, and of the skill, ability, and kindly consideration he had at all times shown in the treatment of the patients, and that the board had much pleasure in appointing Mr. Hardie as honorary consulting surgeon of the institution from the date of his retirement.

This was seconded by Mr. E. S. Heywood, the late chairman, and was passed unanimously.

Hospital Saturday.

Saturday, May 4th, was Hospital Saturday, and an urgent appeal was issued for liberal contributions. For the last two or three years the claims made by the Indian famine and the war have reduced the collections. It is too soon to know the amount received this year, but last year the total of the Saturday and Sunday collections was £7233 14*s*. 4*d*. This is a small sum compared with the £25,000 collected at Birmingham. "The cases of illness treated in the voluntary and workhouse hospitals of Manchester and Salford in 1899 numbered 56 5 per cent. of the population and the deaths 2 3 per cent." If this means that considerably more than half of the people in Manchester and Salford have during the year received hospital treatment there is no wonder that the expenditure of the hospitals exceeds their income or that medical practitioners have begun to feel that charitable medical help is given with too lavish a hand. There is some danger in these philanthropic days of large sections of the people losing all idea of self-help and retaining but little of their self-respect.

£40,000 for Middle-class Baths.

The Baths Committee of the Manchester Corporation recommended at the council meeting held on May 1st that baths should be erected in High-street, Chorlton-on-Medlock, at a cost of £40,000, which is exclusive of the purchase of the site. The chairman of the committee said that they would serve three wards with a population of 72,000 and a rateable value of £330,000. The buildings are to be "palatial in character and extent," and "of a character unknown before." What this foreshadows it is not easy to divine, but presumably a good deal of money will be spent on decorations which will probably be vulgar and tawdry unless the promise is kept that they shall be "of a character unknown before." The *Manchester City News* objects to so much money being spent on these baths. The neighbourhood in which they are to be placed is in the main one of good houses and well-to-do people. It says: "No second-class baths will be required, because only first-class people will go. Washing-baths will not be wanted, because all the houses in the neighbourhood contain baths of their own. First-class Turkish and ladies' and gentlemen's swimming baths are to be provided. ...... The money would suffice to place six baths in as many poor and congested districts that urgently need them." This is quite true. There are already private and good Turkish and other baths easily accessible, and there seems no reason why there should be municipal competition. The really poor of the district will be much too shy and too dirty to enter these "palatial" baths. It has long been evident that as regards baths a large proportion of the members of the council, either from want of interest or want of thought, neglect the needs of the poor who want facilities for cleanliness for themselves and their children and are dazzled by the idea that they will have given their help towards the erection of a building "worthy of the city" and "of a character unknown before" They forget the thousands of women in the "slums" where a family is often crowded into one poor room who would be thankful to go themselves and to take their children to modest looking cottage baths but who would not enter "a palatial building." More attention should be given in this matter to the wants of those who form the majority of the population.

Manchester Southern Hospital: the Burns Cot.

At the Burns anniversary dinner of the Manchester and Salford Caledonian Association last year a very kindly suggestion was made by Mr. Peter Black. It was that as a memorial to Robert Burns a fund should be raised for the endowment of a cot in the Manchester Southern Hospital for Women and Children. This fund has now reached £350.

Stockport Isolation Hospital.

At the meeting of the Stockport Town Council on May 1st a scandal, as the report calls it, at the isolation hospital was discussed. The Sanitary Committee reported that a number of complaints had been made about the general administration of the hospital, and that the steward and matron and all the servants had resigned. It seems from the report that the patients and staff have been "boarded" with the matron, and the committee resolved that this system should be discontinued, that the committee itself should contract for the supply of food, and that the medical officer of health "cannot be exonerated from blame" for not keeping a more watchful eye on the feeding of the patients, for it was said that they had not had sufficient food. One of the most remarkable statements was made by an alderman who is reported to have said that "the matron had a right to make a profit out of the boarding of the patients, or else she should make an application for an increase of wages." It is easy to see how this system must almost inevitably lead to abuse. Nine pints of milk for 47 patients—two of them on "milk diet"! This cannot be called an extravagant allowance. When the medical officer asked the children one day at dinner-time if they wanted any more to eat 40 of the 43 present (17 girls and 23 boys) put up their hands. When they sent to the cook she replied that they had had "their allowances." The medical officer calculated that in 13 fortnights the milk was 1820 pints short, and no account had been kept of the stimulants used. At the inquiry of the committee the chairman informed the nurses that if they told the truth no action should be taken against them afterwards, but the alderman who approved of "farming" the patients "actually moved that the nurses should be asked to send in their resignations." They had complained of their food. No doubt, now that these abuses have been exposed to the light of day they will be remedied, but the moral may be drawn that all institutions require the watchful supervision of disinterested persons.

May 7th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Glasgow Small-pox Epidemic.

THE condition of the city in reference to the occurrence of small-pox continues to improve. New cases are now only occasional events, and the total number of patients under treatment has fallen to nearly 100. An interesting official statement dealing with vaccination and revaccination in the city was made by the Lord Advocate in the House of Commons on May 3rd. From this it appears that practically the whole infant population is vaccinated as the normal and regular rule, and quite independently of the existence of small-pox. Thus in 1899 the total number of births was 24 247, and of this number, after deduction of those who died before the ordinary period for vaccination had expired, only 775 remained without satisfactory evidence in connexion with vaccination. Revaccination is in an entirely different position. Except when small-pox is present in the community it is almost entirely neglected, and it is only when the disease shows considerable activity that the practice becomes anything like popular. Thus in connexion with the present epidemic small-pox first showed itself in April, 1900, yet, as far as the official returns on the subject go, the numbers revaccinated for each period of four weeks were below 100 per 10,000 of the population above five years of age until the months of February, March, and April last, when they rose to 1740, 1244, and 1534 respectively. On the same occasion the Lord Advocate, in remarking on the misapprehensions which have prevailed regarding the severity of the outbreak, quoted figures to show that in the year terminating March 31st, 1901, the total number of cases had only amounted to 2·28 per 1000 whilst the deaths had been 197 out of a population of 750 000.

The Public Health of Glasgow.

A sub-committee of the Corporation of Glasgow has for some time been engaged in the consideration of a proposal to establish one or more municipal cemeteries. From a report recently presented to the town council it appears that such cemeteries are owned by 55 municipalities in England, by five municipalities in Scotland, and by one municipality in Ireland. With reference to the existing cemeteries in Glasgow, the report states that in one of these 36,331 interments have taken place in one small plot of ground during the last 15 years. The cost of lairs in various municipal cemeteries is also shown to be less than the charges in the Glasgow cemeteries. For these and other reasons the sub-committee recommends the town council to approve of the principle of establishing one or more municipal cemeteries in the city or immediate neighbourhood, and asks for powers to report upon the detailed arrangements necessary for carrying out the scheme. The consideration of the report will occupy the attention of the council at its next meeting. Councillor Dr. James Erskine has given notice of his intention to propose at that meeting a motion directing the health committee to consider and report upon the measures which can competently be taken by the corporation in the way of establishing in working-class districts one or more depôts for supplying wholesome prepared milk with a view to diminish infantile mortality.

Marine Biological Association.

In his inaugural address in connexion with the new teaching arrangements at the Millport Marine Station Sir John Murray, K.C.B., discussed the practical value of the scientific research work carried on at this and similar institutions and claimed that such work was essential for the material progress and welfare of the nation. In illustration of this position he referred to the *Challenger* expedition, the expenditure on which—a sum of nearly £200,000—it was sometimes reproachfully said had produced no corresponding economic result. As a matter of fact his own work on a small group of organisms had enabled him to point out that the rocks on a certain oceanic island were of great value; his report had led to the acquisition of this island by the British Government and within the next few years he believed that the commercial value of this one observation would more than meet the entire outlay on the whole of the expedition. Sir John Murray announced his intention to give three prizes of £50 each for the encouragement of work in biological science.

University of Aberdeen.

The prize presented by Lord Strathcona, Lord Rector of Aberdeen University, will, so far as the medical faculty is concerned, be awarded this year to the best thesis in the professional examination for the M.D. degree. The demolition of old buildings to afford the site for the new Greyfriars church in connexion with the extension of Marischal College has now been commenced.

May 7th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Dublin Branch of the National Association for the Prevention of Tuberculosis.

THE annual meeting of the Dublin Branch of the National Association for the Prevention of Tuberculosis was held on May 4th in the hall of the Royal College of Physicians of Ireland. His Excellency the Lord Lieutenant of Ireland was in the chair and in the course of the proceedings he delivered a most interesting address, in which he said that any discussion on matters affecting the health of the people of Dublin led to only one conclusion—namely, that the question of sanitation in Ireland required the gravest consideration from all Irishmen. He hoped that meetings such as that would induce the people to take a more serious view of their responsibility and of the measures which they should take in order to prevent the spread of a terrible scourge such as tuberculosis. His Excellency referred to the deep interest which His Majesty takes in the problem of the housing of the working classes and to the prominent place in the deliberations of the congress to be held in London in July which this subject will certainly occupy. He made a pointed allusion to the comparatively small proportions of the meeting which he addressed and said that he feared that it might be typical of a want of energy and determination on the part of the citizens of Dublin at large to support the operations of the association. His Excellency's address was, as usual, thoughtful and suggestive, and, moreover, humorous when he alluded to his own recent attack of influenza which the medical faculty had failed to stave off. The meeting was also addressed by the President of the Royal College of Physicians of Ireland, the President of the Royal College of Surgeons in Ireland, Mr. Justice Barton, the Registrar General, and Professor Antony Roche.

The Meath Hospital and County Dublin Infirmary.

The annual meeting of the life members and governors of the Meath Hospital took place on April 29th in the board-room of the institution. In the absence of Lord Meath the chair was occupied by Sir Percy Grace, to whom the general and medical reports of the hospital for the past year were submitted.

Royal College of Physicians of Ireland.

Sir Christopher Nixon, President of the Royal College of Physicians of Ireland, entertained a distinguished company at a collegiate banquet on the evening of April 29th. His Excellency the Lord Lieutenant of Ireland was unable, owing to indisposition, to be present.

Health of Belfast.

From March 24th to April 20th, 1901, there have been notified in Belfast 90 cases of typhoid fever, 60 of simple continued fever 39 of erysipelas, 21 of scarlet fever, 11 of diphtheria, 5 of croup, 4 of puerperal fever, 2 of small-pox, and 1 of typhus fever. In the same four weeks there were in Belfast 849 births and 755 deaths. There were 93 deaths from zymotic diseases, 100 from phthisis, and 289 from respiratory diseases. The annual death-rate from all causes was 27·4 per 1000, 3·4 from zymotic diseases, and 11·1 from chest affections. Two cases of small-pox occurred in barracks. The patients, who had caught the disease in Scotland, were removed promptly to the Union Hospital, and so far no other cases have occurred. It is said that some other cases of small-pox have been met with in the neighbourhood of Lisburn. In the discussion following the medical report at the meeting of the Belfast City Council on May 1st one of the speakers drew attention to the duplications of notifications of infectious disease and to the alleged fact that many medical men in large practices do not notify at all. The matter is to be inquired into.

Belfast Medical School: the Summer Session.

The summer session began last week both at the Royal Victoria Hospital and at Queen's College, Belfast, where classes are now in full work again.

The North Infirmary, Cork.

The annual meeting of subscribers to the above institution was held recently, and the report for the year 1900 was read by the honorary treasurer. The statement on the whole was a satisfactory one. The daily average number of beds occupied was 77. The cases of accident and emergency numbered 7520, and there were 21,853 attendances in the extern departments. With regard to the financial state of the institution it was pointed out that a special appeal had so far resulted in the receipt of £250, but on the other hand there had been a slight falling off in the subscriptions. The total expenditure was £3501 0*s.* 8*d.*, and at the end of the year the infirmary was in debt to the amount of £524 18*s.* 5*d.* The cost of maintenance per bed was nearly £46. The governors expressed their very high commendation of the services rendered by the medical, surgical, and nursing staffs during the year.

Hospital Saturday in Limerick.

A very representative meeting presided over by the Mayor was held in Limerick last week for the purpose of establishing a Hospital Saturday collection in aid of Barrington's, St. John's, and the Lying-in hospitals. The Mayor, in the course of his observations, mentioned that the debt of Barrington's Hospital was £12,000, while that of St. John's Hospital was £1500. The various speakers warmly commended the project and it was decided that the funds should be distributed as follows: one-fifth to the Lying-in Hospital and the remainder to be divided equally between the two other hospitals.

May 7th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Medical Application of Intra-spinal Injections of Cocaine

INJECTIONS of cocaine into the sub-arachnoidal spinal space, on the utility of which surgeons and accoucheurs are not agreed, are becoming more and more used in medical treatment. M. Marie and M. Guillain have reported a case in which an acute attack of lumbago was cured in eight minutes by an injection of five milligrammes of cocaine. It is true that M. Merklen and M. Rendu have observed the same results to follow injections of artificial serum or of distilled water while the use of cocaine in neuralgia of the hairy scalp and in a case of acute lumbar rheumatism has had no success whatever. M. Achard met with a striking success by the use of this method in a case of acute pain in a man suffering from zona of the abdomino-crural region, while in another case the effect was even more remarkable. The patient suffered from syphilitic myelitis and had for some years been subject to crises of painful priapism through which he had been arrested upon a charge of outraging public decency. The injection of one centigramme of cocaine entirely did away with the priapism and the pain. The patient remained well for a space of three weeks when he left the hospital. M. Sicard has just proposed an improvement in the method of administration which makes the operation much safer. He makes the injection at the level of the sacro-coccygeal articulation and so obviates any risk of wounding the cord. True surgical anæsthesia cannot be obtained in this way, but he has at once relieved cases of sciatica which were most resistant to ordinary treatment. By a somewhat similar method of treatment M. Debove has succeeded in relieving, for the moment, gastric crises in cases of tabes by simple lumbar puncture.

Ichthyol in Leprosy.

M. de Brun of Bayreuth has laid before the Academy of Medicine some remarkable results obtained by him in the treatment of tuberculous leprosy by ichthyol administered by the mouth. He began by daily doses of 30 centigrammes, but soon found that he could give five grammes at a sitting, which dose could easily be increased to eight or 10 grammes without bad results. After some months' treatment the tubercles became paler and flattened and the ulcerative rhinitis almost completely disappeared. Local applications of ichthyol gave no result and the drug was absolutely useless in the case of anæsthetic leprosy.

The Transactions of the International Congress of Medicine.

The publication of the Transactions of the International Congress of Medicine held at Paris is going ahead with unheard-of rapidity. The transactions of the congress held at Rome have only got as far as the second volume, those of the Moscow Congress are only just out but the Paris transactions will appear by the end of August—that is to say, within a period of one year. Volume I., containing the section of Neurology, was published in December, the volume on the Urinary Tract appeared on Jan. 15th, and that on Histology, Anatomy, and Physiology on March 10th. One volume will come out every 15 days The 17 volumes will contain, altogether 14 000 pages of text. This remarkable result does honour to the Librairie Masson which alone of French publishing houses could have carried such a colossal enterprise to a successful end. The success attained is due to the work having been divided up among various sections, each of which works as an independent body under a responsible secretary whose work has much facilitated that of the general secretary, M. Chauffard, and of the president, M. Lannelongue.

Murderous Attack on a Medical Man.

Dr. Monnier, surgeon to the hospital at Vaucluse, a man very highly esteemed in the district and mayor of the town, has been the victim of a homicidal attempt perpetrated whilst he was making his visit in the hospital. A patient who had been admitted with cancer of the tongue came up to him for the purpose of making a complaint, and suddenly, before anyone could perceive his intention, he plunged a knife into Dr. Monnier's breast and then killed himself on the spot with the same weapon. Dr. Monnier is still alive, but in a very serious condition. The patient, who knew that his disease was incurable, had for a good while shown signs of despondency, and at the same time was full of complaints against the surgeon who, he said, did him no good. It has since been ascertained that 10 years ago the man had some personal disagreement with Dr. Monnier in the course of an electoral contest.

May 7th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

The Bubonic Plague.

CASES of plague continue to occur at Perth and Brisbane and the public in both cities are rushing to be inoculated with anti-plague serum. In Perth the supply of Haffkine's serum is running short. In New South Wales and Victoria strict precautions are being observed to prevent the introduction of the disease by sea, and destruction of rats is prosecuted with vigour. Up to date 12 cases have developed at Perth, two of which ended fatally.

Outbreak of Small-pox.

The quarantine regulations have once more failed to keep small-pox out of Australia, and as the means of communication between Australia and other countries increase and the time occupied in the voyage is decreased such failures will be more and more frequent In the present case the steamer *Euryalus* arrived in Melbourne from Calcutta on March 2nd, discharged her Melbourne passengers and cargo, and went on to Sydney, and thence to Newcastle. On March 13th one of the Melbourne passengers was discovered to be suffering from small-pox and was promptly placed in the sanatorium It was then found that when the *Euryalus* reached Adelaide one of the passengers was unwell, but the captain reported all well to the health officer, who, however, noticed the sick passenger, examined him, found his temperature normal, and did not regard the case as one of small-pox, although the patient had an eruption on his arms The vessel was accordingly cleared at Adelaide This passenger was with some difficulty traced to Sydney, where he was found to be still suffering from small-pox and was removed to quarantine. In the meantime he had been moving freely about both in Melbourne and Sydney. Most of the other passengers by the *Euryalus* have been traced and kept under observation and so far no other cases of small-pox have been discovered in Melbourne, but one case developed in Sydney. The greater number of the passengers by the *Euryalus* were vaccinated in Calcutta recently. The *Euryalus* was fumigated at Newcastle and detained under observation, but no cases having occurred among the crew she was released from quarantine on March 28th The Board of Health of Victoria are taking legal advice as to prosecuting the captain of the *Euryalus* for breach of the Quarantine Act

The Adelaide Hospital.

The dispute at the Adelaide Hospital has been settled at last Dr W Ramsay Smith, the resident physician appointed by the Government, has left for South Africa as medical officer to the fifth contingent and before leaving he tendered his resignation as physician to the hospital Dr. J C Verco and Dr. Hayward, the honorary physicians to the hospital at the time when the dispute began, will immediately take over Dr. Smith's beds, and arrangements are being made for the university staff to begin work at the hospital.

Site for the New Children's Hospital, Sydney.

Some time ago the Government of New South Wales provided a site for a new children's hospital Objection is now taken to the site that it is too difficult of access, and that it would cost from £3000 to £4000 to drain and to prepare the site for a hospital. The committee of the hospital have cast envious eyes on what they regard as an ideal site in the neighbourhood but which was not in the gift of the Government A deputation recently waited on the Colonial Secretary to ask permission to sell the site given by the Government and purchase the other which, it was understood, would shortly be for sale The Minister promised to lay the matter before the Cabinet The public has responded very well to the call for funds for the erection of the new hospital and over £10,000 have been subscribed already.

Prince Alfred Hospital, Sydney.

A deputation representing the board of directors of the Prince Alfred Hospital, Sydney, waited recently on the Colonial Secretary to ask him to provide the necessary funds (£40,000) for completing the original design of the hospital. This would be done by erecting two pavilions to accommodate 120 patients. It was pointed out that patients had daily to be refused admission to the already overcrowded hospital. The number of beds at present was 236, but only on nine days since the beginning of the year has the number of patients not exceeded this, rising as high as even 249 The Royal Commission on Public Charities reported that "any increase of hospital accommodation in Sydney should be in connexion with this institution; the space is ample, the site good, and the administrative buildings being already in existence the cost per bed of extra accommodation would be materially reduced." The Minister was sympathetic and assured the deputation that the Government would submit to Parliament in the next estimates a vote for £40 000 to build the additions to the hospital, and he quite appreciated the noble work which the Prince Alfred Hospital was doing

The Inebriates Act, New South Wales

The Colonial Secretary is considering the selection of a site for the necessary buildings for the purposes of the new Inebriates Act. One of the islands on the Parramatta river has been suggested as suitable

Death of Mr. W. Langford.

Mr. William Langford, M R C S Eng., died at Kyneton, Victoria, on March 21st He was born at Mysore, India, in 1831 and was educated at King's College, London He was for a time surgeon to the hospital at Coventry and then entered the service of the Peninsular and Oriental Steam Navigation Company He came to Australia in 1865 and commenced practice in Castlemaine and subsequently moved to Kyneton where he has since practised. He married a niece of Cardinal Newman and daughter of a well-known writer for the *Times* Mr Langford had literary tastes. He wrote a lengthy poem founded on a Sanskrit legend and published two novels entitled "Tifana's Revenge" and "Werona"

March 29th

Medical News.

UNIVERSITY OF CAMBRIDGE.—At the examination for the degree of M C, Easter Term, the following candidate was successful —

W. D Harmer, M A., King's

At the third examination for medical and surgical degrees, Easter Term, the following candidates were successful :—

P[illegible] Jesus, J. Wharton, B A., St John's, [illegible] Wilson, B A., Trinity, H M Wilson, B A, Trinity Hall, and F E. Wood B A., Downing

Part II, Medicine—A P M Anderson, B A, Trinity, A H Brehaut, B.A, H Selwyn, A. R. M Brenan, B.A, Trinity; J M Brydone, Jesus, A E Carver, B A., Clare, F J Child, M A., Christ's, J S Clarke M A., Caius; L S Gaskell, M A., Christ's; C H Glenn, B A, Pembroke, J A Glover, B A., St. John's; H. Gordon-Smith B A., Trinity, A W Greig, B A., Jesus, M. C Hayward, M A. Caius A E Hodder, B A., King's, A. C Ingram, B.A., St. John's, A. S Mellor, B A., King's; C H Miller, B A., Trinity, F E. Murray, B A, St. John's, G H Orton, B.A., J C S Rashleigh, M A., and L. Reynolds, B A, Trinity; H H. Riddle, B A., *Peterhouse*, E D Smedley, B A., Pembroke; A. B Taylor, B A., Downing, N F Ticehurst, M A., Clare, J L. Timmins B A., Emmanuel, W. E Tucker, Caius, F K. Weaver, B A., Trinity, and R. F Williams, B A, Caius.

Mr A F Stabb, M B., B C Cantab., has been appointed an additional Examiner in Midwifery —The research work of Dr Marett Tims on the Dentition of the Caviidæ and the Canidæ has been approved by the Degree Committee as a qualification for the B A degree —Professor Clifford Allbutt and Professor Sims Woodhead will represent the University at the British Congress on Tuberculosis to be held in London in July

UNIVERSITY OF DURHAM.—At the Convocation held on April 27th the following degrees and diploma were conferred .—

Doctor in Medicine—Thomas Ponsford Cann, M B, B S Durh; [illegible] William Dudgeon, Henry C[illegible], B S Durh; M B, B[illegible] Stevens, M.B., Norman [illegible]k Hart, M B, B S Dur[illegible] B S Durh

Doctor in Medicine (Practitioners of Fifteen Years' Standing)—William Edwin Barton, M R C S, L.R.C P, L S A., Edgar George Bulleid, L.R.C P & S, Roland Frederic Cox, M R C S L R C P.; John Charles Davies, M R C S, L.R.C P, L S A., D P H. Durh; Richard Emmett, M R C S, L.R.C P., L S A.; David Gault, L R C P & S, George Herbert Graham, M R C S, L.R.C.P., L S A., Herbert Wheatley Hart, M R.C.S, L S A., Richard Thacker King, L R C S. Irel., L.R.C P. Irel, L.M, Herbert William Knowles, M R.C S, James McGaw, L.R.C P & S, Percy Robert Mander, M.R.C S, L.R.C P, L S A. William Odell, F.R.C.S, L S A.; Ernest Rawson, M R.C S, L.S A., and Ernest Oliver Scallon M.R.C.S., L S A.

Doctor in Hygiene (D Hy)—Reginald Green, M D, B S., D.Hy

Bachelor in Medicine (M B)—Edmund Howard Barrett, M.R.C S., L.R.C P, St. Mary's Hospital; George Burrows Brown, College of Medicine, Newcastle-upon Tyne; Frederick Clarkson, St. Thomas's

Hospital; Charles Fisher, M.R C.S , L R C.P., St. Bartholomew's Hospital; James Willie Heslop, Richard Arthur Mills-Roberts, M.R C S., L.R C P., and Stanley Raw, College of Medicine, Newcastle-upon-Tyne; Thomas Basil Rhodes, Birmingham University; William Waters Stainthorpe, Junr., College of Medicine, Newcastle-upon-Tyne; Fred Stuart, M.R.C.S., L R.C.P., College of Medicine, Newcastle upon-Tyne, and St. George's Hospital; Alexander Minter Watts, M R C S., L R C.P., University College, London; Frederick Percy Wigfield, College of Medicine, Newcastle-upon-Tyne, and Reginald Worth, M.R C.S., L R.C.P., St. Mary's Hospital.

Bachelor in Surgery (*B S*)—Edmund Howard Barrett, M.R.C S., L.R C.P, St. Mary's Hospital; Frederick Clarkson, St. Thomas's Hospital; Charles Fisher, M.R.C S , L R.C.P., St. Bartholomew's Hospital; James Willie Heslop, and Stanley Raw, College of Medicine, Newcastle-upon-Tyne; Thomas Basil Rhodes, Birmingham University; William Waters Stainthorpe, Jun , College of Medicine, Newcastle-upon Tyne; Fred Stuart, College of Medicine, Newcastle-upon-Tyne, and St. George's Hospital; Alexander Minter Watts, M.R.C S., L R.C P., University College, London; Frederick Percy Wigfield, College of Medicine, Newcastle-upon-Tyne; and Reginald Worth, M R C S., L.R C P., St. Mary's Hospital.

Bachelor in Hygiene (*B Hy*)—George Whitson Middlemiss, M.B., B S Durh., and Duncan Macfadyen Millar, M.B., C.M. Glasg.

Diploma in Public Health (*D.P.H*)—Andrew Halliday, M.B., C.M. Glasg.; George Whitson Middlemiss, M.B., B.S. Durh , and William Henry Rowell, M.D., B.S , B.Hy. Durh.

UNIVERSITY OF EDINBURGH.—The following is the official list of passes at the recent first, second, and third professional examinations for degrees in Medicine and Surgery:—

First Professional Examination.—Francis Aitken, J. O. D. Allan, William Anderson, W. T. Archibald, Francis Baillie, M. M. Sujjad Beg, A. M. Black, Richard Bladworth, Thomas Campbell, John Chisholm, A. G. Cook, J. G. Craig, D. C. Crole, E. G. Deverell, Pollok Donald, G. T. Drummond, F. E Field, G. H. L. Fitzwilliams, O. M. Gericke, J. M. Grant, Thomas Grant, Charlotte R Greenfield, O. C. Greenidge, T. A. Gregg, John Grieve, J. D. Harmer, Ada A Hatchard, R. W. D. Hewson, Jane S Hogg, J. G. Hume, T. Scoresby Jackson, J. F. James, J. P. S. Jamieson, A. A. Jardine, Olive T. Leonard, John Lindsay, S. M. Livesey, W. L. Locke, F. J. Luck, William Lumsden, A. D. M'Callum, C. I. M'Farlane, James MacKenzie, A. C. M'Master, N. N. G. C. M'Vean, William Magill, Alfred Malseed, H. G. Marshall, William Martin, C. E. F. von Mengershausen, H. P. Milligan, C. E S Mitchell, J. S. Mitchell, Venancio Moralejo, H. B. Morris, G. P. Norman, H. J. Norman, G. O Norrie, Garfield Ormrod, W. J. Patterson, A. C. Pickering, Agnes E Porter, J. R. Robertson, W. D Sibbald, E. M. Simmers, Oliver Smith, S. A. Smith, W. T Smith, William Stenhouse, H. G. Sutherland, J. R. Tannahill, W. B. Tannahill, F. J. G. Tocher, A. N J. Vizarat, Frances M. Wakefield, R C. Walker, R. W. L. Wallace, H. E. A. Washbourn, J.S. R. Weir, Elsie B Wilkie, and R M. Wishart.

Second Professional Examination.—Daniel Allison, G. C. Anderson, J. A. Anderson, F. L. Atkinson, C. M. Begg, James Bentley, A W. Beveridge, T. C. Blackwell, William Blackwood, F. H. Borthwick, J. C. Boyd, Edith C. Brown, G. L. Brunton, G Macqueen Brunton, Angus Buchanan, H. H Bullmore, R A. Chambers, Kate J. S. Clark, Elizabeth L. Colby, A F. R Conder, C. H. Craig, R. W. Craig, C. S. Crichton, Sam Cunliffe, Henry Curwen, Arthur Dangerfield, H S Davidson, James Davidson, W. H. Davison, D. E. Derry, A C. Devereux, J. M. Dewar, James Donaldson, A. M. Dryden, G J. Farle, John Findlay, John Fortune, A C. Geddes, C. R. Gibson (with distinction), J. D. Giles, James Girdwood, Alexander Gray, M.A., H. W. Gush, A. A. Hall, M A. (with distinction), C. R F Hartley, George Henderson, R L Henderson, A E. Hodgson, A F. Hughes, Isaac Ivey, J. M. Johnston, R W. Johnstone, J. H. Kay, J. W. Keay, I. C. Keir, M. L. Ali Khan, J. M Kirkness (with distinction) L A. H. Lack (with distinction), F. W. Lundie, Hugh M'Calman, G. S. Mackay, T. H. Mackinnon, William MacLaren, J. B M'Neill, I. M. Macrae, P. W. Mason, A. S Millard, G. H. S. Milln, W. O. Morton, M A. (with distinction), Ernest Muir, C. H. Muller, H. L Munro, A E. Nalborough, M. Newton, Harry Overy, T. C. E. Parry, D. D. Paton, M.A., Thomas Peebles, J. A Pottinger, Julia L Pringle, J A. Raubenheimer, William Readman, Eva A. Robertson, Amy Robinson, Mabel Ross, J. A. Roux, N C. Rutherford, D. G. Addison Scott, G. H. Skinner, S. W. Smith, Eva M Snowball, Henry Speirs, Amelia Sutcliffe, J. M. Taylor, A R M. Thomson, Louis Turiansky, Robert Veitch, W. R. S. Watkins, G. J. Wentzel, D. H. Wessels, W. D. Wright, G. W. Young, and William Young.

Old Regulations—R. J. Irving, Harry Whittaker, and J. O. Williams.

Third Professional Examination—Lewis Anderson, R. G. Archibald, James Arthur, Mohomed Ashruff, Alexander K. Baxter, Breadalbane Blacklock, C. H. Bosenberg, J. R. Bosman, E. A. Braine, G. B. Brand, R D. Brown, W. A. Brown, Archibald Brownlie, D M. Callender, C. M. Campbell, M.A , B Sc., G. S. Carey, J. C. G. Carmichael, T. F. Cavanagh, A M. Caverhill, J. H. Connolly, T. M. Cuthbert, Maurice Davies, F. L Dawson, Jan Dommisse, C. B Drew, H. J. Dunbar, J. F. Duncan, John Dunlop, S A. Ellerbek (with distinction), J. S. Elliott, S. C. Ellison, A. N. Fell, Sydney Gilford (with distinction), Archibald Gillespie, D. P. Goil, Wilbert Goodchild, Thomas Gowans, Andrew Grant, J. P. Grant, B Sc., Mabel D. Gulland, J. F. Haegert, T. B. Hamilton, D J. Hamman, Howard Harding, Frances M. Harper, A. W. M. Harvey, A. W. Hauman, Henry Herd, M.A., Mathew Holmes, William Hume, R. C. Irvine, Harold Kerr, R. D. Kidd, James Kirkwood, H. A. Knight, Hermann Kramer, Vivian Langmore, Nora Lenwood, William Lillico, Duncan Lorimer, R. C. Low (with distinction), W. F. MacDonald, D. R. Macgregor (with distinction), Isabel N. M'Keand, William M'Lachlan, S. W. Maclean, R. P. M'Neil, C. E. Marshall, W. E. Marshall, J. K. Matheson, Paul Mathews, R J. Mayberry, A. M. Moll, J. H. Montgomery, S. A. Moore, A. E. Morton, P. H. Mules, R. S. Munro, D. N. W. Murray, William Newlands, T. H. Osler, Sophie Palmer, J. H. H. Pirie, B.Sc., Herdman Porter, W. G. Porter, B.Sc., Agnes M. Pringle, J. J. Redhead, A. B. dos Remedios, H. H. Robarts, A. B Ross, M.A., T. W. E. Ross, A. J. Rowan, R. E. Russell, C. W. V. Rutherford, James Scoble, J. S. Sewell, A. M. Sharp, M A., E. S Sharpe, C. J. Shaw (with distinction), Maurice Sinclair, W. F. Sincall, J. M. Smith, Robert Sproule, Elbert Steyn, H. M. Stumbles, G. L Thompson, Philip Vickers, D. L. Wall, B P. Watson, Philip Weatherbe, John Wier, S. A. K. Wilson, M.A., and E. E. Wood.

FOREIGN UNIVERSITY INTELLIGENCE.—*Berlin:* Dr. Karl Günther, *custos* of the Institute of Hygiene, has been promoted to an Extraordinary Professorship.—*Bologna:* Dr. Sanarelli has been appointed to the chair of Hygiene. Dr. Rovighi has been promoted to the ordinary Professorship of Medical Pathology.—*Bonn:* Dr. Rumpf, late of the Hamburg General Hospital, has qualified as *privat-docent* of Internal Medicine —*Halle:* Dr. E. Kromayer has been promoted to an Extraordinary Professorship of Dermatology.—*Heidelberg:* Dr. G. Port of Munich has been appointed Extraordinary Professor of Odontology.—*Leipsic:* Dr. Krönig and Dr. Menge have been promoted to Extraordinary Professorships of Gynæcology. Dr. E. Kruckmann has been promoted to an Extraordinary Professorship of Ophthalmology.—*Leyden:* Dr. von Hansemann of Friedrichshain has been offered the chair of Pathological Anatomy. He was for many years Virchow's assistant at the Charité.—*Marburg:* Dr. A. Buchholz, senior physician in the Clinic for Mental Diseases, has been promoted to a Professorship.—*Montpellier:* Dr. Planchon, Lecturer in the Pharmaceutical School, has been appointed to the chair of Materia Medica in the University.—*New York* (*Bellevue Hospital Medical College*): Dr. J. E. Weeks has been appointed to the chair of Clinical Ophthalmology in succession to the late Dr. Noyes —*Paris:* Dr. Béhal has been appointed Professor of Toxicology in the École Supérieure de Pharmacie; Mdlle. A. Wycrolkowska, Doctor of Medicine, has been offered the chair of Experimental Psychology in the Psycho-Physiological Academy.—*Rostock:* Dr. Graser of Erlangen has been appointed to the chair of Surgery in succession to Professor Garré who goes to Konigsberg.—*Strasburg:* Dr. Kümmel of Breslau, who had been offered the chair of Otology, has decided to retain his present post.—*Tübingen:* Dr. Bürker has been recognised as *privat-docent* of Physiology.—*Vienna:* Dr. Arthur Biedl has been promoted to an Extraordinary Professorship of General and Experimental Pathology. A "Third" Surgical Clinic has been established, the charge of which is to be given to Professor Hochenegg; Dr. Katz and Dr. Erben have been recognised as *privat-docenten* of Internal Medicine and Dr. R Savor as *privat-docent* of Midwifery and Gynæcology.—*Würzburg:* Dr. von Franqué, *privat-docent* of Gynæcology, has been promoted to an Extraordinary Professorship.

QUEEN'S COLLEGE, BELFAST.—At the class examinations held in the above college at the close of the medical winter session the following prizes were awarded: Zoology: James Stuart Dickey, Robert Jamison, Samuel John Graham, Charles Dowall Bell, William Andrew M'Kee, William James Leighton, and Andrew Leitch —Systematic Anatomy: senior, Henry Hanna, M.A., B.Sc., Thomas Lyle, Mary Evelyn Simms, Joseph Clarke M'Pherson, and Samuel Kirkpatrick Adams; junior, William James Wilson, William Henry Davis, and William Joseph M'Learn Baird.—Practical Anatomy: senior, Henry Hanna, M.A., B.Sc., John M'Clatchey, and Joseph Henry Thompson; second year, Thomas Lyle, Joseph Clarke M'Pherson, Malcolm Orr Wilson, Samuel Kirkpatrick Adams, and Daniel Gillespie; first year, William James Wilson, and John Stevenson O'Neill and Thomas M'Cann Phillips (equal). Physiology and Histology: senior, Thomas Lyle and Joseph Clarke M'Pherson; junior, William James Wilson and Malcolm Orr Wilson. Practical Physiology: Charles James Boucher, Samuel Kirkpatrick Adams, and Thomas Lyle. Practical Histology: Malcolm Orr Wilson, William Joseph M'Learn Baird, and Ernest Clements. Medicine: Sydney Herbert George Blakely, William Alexander Stoops, B.A., and Samuel Thompson Irwin, B.A Surgery: senior, Sydney Herbert George Blakely, and Samuel Thompson Irwin, B.A., and Walter Phillips, B.A. (equal); junior, Thomas Henry Suffern, James Hamilton Campbell, and Joseph Corker. Materia Medica: Joseph Henry Thompson, Thomas Dixon Liddle, and Thomas Killen. Midwifery, Gynæcology, and Diseases of Children: Samuel Thompson Irwin, B.A., Robert James Bethune, James Hamilton Campbell, Frederic William Stewart, B.A., and James Wallace Killen and Samuel Robert Hunter, B.A. (equal). Ophthalmology and Otology: John Matthewson Clements, Samuel Robert Hunter, B.A., Sydney Herbert George Blakely, and Frederic William Stewart, B.A.

Coal Smoke Abatement Society.—At a committee meeting of this society, held at 14, Buckingham-gate, London, S W., on May 1st, 83 smoke nuisances were reported by the society's inspector. Instructions were given that the reports should be forwarded to the borough councils of Hammersmith, Chiswick, Fulham, Barnes, Kensington, Acton, Shoreditch, Holborn, Willesden, Brentford, Port of London, Battersea, and City of Westminster, in whose districts the nuisances had occurred.

The Oxford Graduates' Medical Club and the Cambridge Graduates' Medical Club decided to hold their annual dinner together this year, and the meeting took place at the Cecil Hotel on Monday, May 6th, Sir William Selby Church, Bart., M.D., P.R.C P., being in the chair. 122 members of the two clubs attended. The chairman proposed only two toasts—viz., "The King" and "The Clubs." After these had been drunk the company adjourned to an adjoining room, where musical entertainment was provided by various members of the two clubs.

The late Mr. A. E. Watson.—Mr. Arthur Edmundstone Watson died at his residence, 8, Portland-place, Torquay, on April 26th, after a short illness, in his thirty-fifth year. The deceased was the son of the late Mr. John Watson of Paris, and received his medical education at the Middlesex Hospital, where he obtained several prizes and was awarded the Broderip Scholarship in Medicine and Surgery in 1888. In the same year he qualified as L.R.C.P. Lond. and M.R.C.S. Eng., and after being casualty house surgeon at Middlesex Hospital was appointed house surgeon at the Torbay Hospital, Torquay. He had only lately resigned this post and commenced practice in Torquay, having been quite recently appointed a member of the staff of the Torbay Hospital. Mr. Watson contributed several reports of cases to The Lancet in 1892, 1893, and 1896.

The Medical Officer of Health of the Gelligaer and Rhigos Rural District.—The parish of Gelligaer is situated within the Merthyr Union in South Wales and is one of the wealthiest districts in the whole principality, having an area of nearly 23 000 acres and a rateable value of over £105,000. It is a mining district and during the last 10 years the population has increased from 13,718 to 18,959. Just over a year ago the post of medical officer of health became vacant by the death of Mr. Dyke who lived not in Gelligaer but in the town of Merthyr, and Dr. W. W. Jones, also of Merthyr, received the appointment, the tenure of which is annual. The question of Dr. Jones's re-appointment was recently under consideration by the parish council who have decided to impose a condition not hitherto attaching to the position—viz., that the medical officer of health shall reside in the district itself. The members of the council spoke highly of the efficient manner in which Dr. Jones had performed his duties, but thought that the interests of the district required that the medical officer of health should be resident within it. The salary is £126 per annum. Dr. Jones has consented to carry on the duties pending the decision of the Local Government Board to whom the question has been referred.

Presentations to Medical Men.—At a meeting of the members of the Cambridgeshire Hospital, Wisbech, on April 2nd, Mr. Charles Herbert Gunson, M.B. Glasg., was, on the occasion of his marriage, the recipient of a writing table, bearing on a brass plate an appropriate inscription, which was subscribed for by the trustees, committee of management, honorary medical officers, and other officials.—On the distribution of the prizes at Hunslet, on March 21st, obtained by the members of the Steam Plough Works Branch of the St. John Ambulance Association, Mr. L. A. Rowden, M.B. Glasg., was presented with a silver matchbox from the members of the class in recognition of his first-aid instructions.—On March 28th Mr. Edward James Sheppard, L.R.C.P., L.R C.S Edin., was presented with a walking stick, suitably inscribed, from the members of the Park-place (Clifton) Evening Continuation Schools Branch of the St. John Ambulance class as a mark of their appreciation of his services as honorary lecturer.—Mr. Tom R. Taylor, B Sc., M.D. Lond, F.R C S. Eng., has been presented by the Hospital Saturday Fund Division of the St. John Ambulance Brigade and first-aid nursing classes with a cabinet, &c, as a mark of gratitude for his services during the past few years.—A large and representative meeting of the inhabitants of Newburgh and district, Fife, was held in the Public Hall, Newburgh, on April 27th, to present Mr. Thomas Niven, M.B. Glasg., J.P., with a testimonial on his attaining his semi-jubilee as a medical practitioner in Newburgh. Provost Anderson of that town presided. Mr. Cathcart of Pitcairlie, convener of the county, in making the presentation in the name of the subscribers, remarked that Dr. Niven had practically made one of the largest districts his own, and the testimonial, which consisted of a valuable silver salver and a cheque, was a testimony that the inhabitants with whom he had lived for the past 25 years highly esteemed him and appreciated his professional services.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Lunacy Bill for Ireland.

The Lord Chancellor of Ireland has introduced in the House of Lords a Bill to amend the law relating to lunatics in that country.

Cremation.

The Bill to enable burial authorities to establish crematoria is now in a favourable position for passage into law during the present session. It has passed through all its stages in the House of Lords and in the House of Commons, it has been read a second time, and has successfully emerged from the ordeal of examination by the Grand Committee on Law. In its present state the Bill provides that the plans of each crematorium shall be approved by the Local Government Board and that the working of the establishment shall be carried on under regulations prescribed by the Home Office. It expressly states that these regulations shall prescribe in what cases and under what conditions the burning of any human remains may take place, and also the forms of the notices, certificates, declarations, and registrations. When the Bill was before the Grand Committee on Law it was suggested that a special clause should be inserted to safeguard the interests of justice, but the Solicitor-General expressed the view that the Home Office regulations would be sufficient for this purpose.

HOUSE OF COMMONS.

Thursday, May 2nd.

Ophthalmia and Ringworm in London Poor-law Institutions.

Dr. Farquharson asked the President of the Local Government Board whether he would state the number of children in the metropolitan Poor-law schools, infirmaries, and workhouses who were [illegible]

Curious Question of Diagnosis.

Dr. Farquharson asked the President of the Local Government Board (1) whether his attention had been called to the fact that 47 children had been removed from the Forest-gate Poor-law schools to the fever hospitals of the [illegible] under the erroneous belief that they [illegible] ver; and (2) whether any of the childrer [illegible] when in the fever hospitals.—Mr. Walt[illegible] of the fact [illegible] formed that [illegible] children in [illegible] suspicious [illegible] hospital as cases [illegible] cases of scarlet fever. It ultimately appeared, however, that none of the children thus sent in April were, in fact, suffering from that disease. I am advised that any error which may have been committed in sending these cases to the hospital cannot with justice be attributed to any want of care or anything else than anxiety to do the best for the safety of the school As regards the last paragraph of the question, I understand that none of the children sent to the fever hospitals contracted scarlet fever there

Medical Treatment of Sailors.

Mr. Arnold-Forster, in reply to a question addressed to him by Mr. Knowles, said that it was not the practice in the navy to send sailors to their homes on sick furlough, as they were treated in naval hospitals. The Admiralty did not pay the fees of medical practitioners who might attend seamen taken ill while on leave, but an allowance of 2s a day was granted to the men to assist them in defraying the cost of board, lodging, and medical attendance.

State Inebriate Reformatories.

Mr. Ritchie announced that he had given his approval to plans for [illegible]

Mr. J. P. Farrell asked the Secretary of State for War whether he was aware that on the night of March 31st last Private Michael Lee, late of the Imperial Yeomanry, who was at present confined to bed in Netley Hospital suffering from fits, the result of injuries received in South Africa, was beaten by the night student in charge of his ward whilst suffering from a fit, and that this young student had given orders not to be disturbed whether any of those in his care were ill or not, and on being called by the nurse to see Lee who was ill said that when he had done with him the patient would have few fits and thereupon proceeded to beat him in such a manner that his face was almost unrecognisable for days after; could he state whether any inquiry was held into this case; and what was the name of, and the punishment awarded to, this student.—Mr. Brodrick replied: It appears from the medical and military inquiries which have been held that this was a case of hystero epilepsy and that the surgeon in-charge restored the patient to consciousness by slapping his face There appears to be no doubt that the treatment was unnecessarily violent and some swelling was caused and the surgeon has been censured by his superiors. The surgeon justifies the treatment as being necessary to rouse the patient from the fit and I therefore propose to take eminent medical advice before dealing with his case.

Friday, May 3rd.

Plague at the Cape.

Lord Stanley stated, in reply to a question, that the reports of the cases of plague among the troops only mention the locality in the following—viz, one at Hermon Camp, Paarl District, two at Green Point, Cape Town, and two at Cape Town. The total cases of plague among the troops up to date amount to 14 among European soldiers, 20 native drivers, and seven other employés.

Medical Volunteers at the Front.

Mr. Schwann asked the Secretary of State for War whether he was aware that Manchester furnished many volunteers from the Volunteer Medical Staff Corps and bearer companies of the 2nd, 4th, 5th, and 16th Volunteer Rifle Battalions, all of whom were attached to the Royal Army Medical Corps; and whether these medical volunteers could be sent home at once, as they had more than completed their year of service, and many were losing their appointments in Manchester owing to the prolonged delay in their return —Mr. Brodrick replied: As I have repeatedly stated to the House, special consideration has been, and will be, shown in individual cases of hardship reported to the Commander in Chief in South Africa by commanding officers I am not aware that the position of these medical volunteers is different from that of the other volunteers who undertook to serve for one year or to the end of the war.

Small pox Precautions in Glasgow

The Lord Advocate made the following statement on this subject—viz.—There are no statistics available giving the monthly number of primary vaccinations performed in Glasgow, but practically the whole infant population is vaccinated even where no small pox is prevalent. Thus, for the year 1899, which is the last for which the complete figures are available, the total number of births was 24,247, and of this number, *after deduction of those who died before the ordinary period for* vaccination expired, there remain only 775 cases unaccounted for, which again include children removed from the district who may have been vaccinated elsewhere Except when small-pox is present in the community it is impossible to get the population generally to have re*course to revaccination*, and as during the 12 months prior to the beginning of the present outbreak in April, 1900, there had been no cases of the disease in Glasgow, little revaccination was done except in the case of the staff of the fever and small-pox hospitals, the post-office, and the police Small-pox showed itself first in April, 1900. The only figures available at present are the vaccinations by the officers of the sanitary department and returns to the medical officer of health, which show that the numbers revaccinated for each period of four weeks were below 100 per 10,000 of population above five years of age till the months of February, March, and April last, when they sprang up to 1740, 1244, and 1534 respectively. I should like to add, as I think there has prevailed some misapprehension in the matter, that during the whole year since small-pox made its appearance—i.e., from April 1st, 1900, to March 31st, 1901—the total number of cases has only amounted to 2·26 per 1000 and the deaths have been 197 out of a population of 750,000.

Monday, May 6th.

Typhoid Fever among the Troops in South Africa.

Sir Walter Foster asked the Secretary of State for War whether he could state the number of cases of typhoid fever among the forces in South Africa, and the number of deaths for each of the months of January, February, and March of this year, and also the total number of soldiers invalided home from all causes during the same months, and the number of deaths during the voyage —Mr. Brodrick replied that the figures were as follows:—January, 2121 cases, 356 deaths; February, 2119 cases, 391 deaths, and March, 2018 cases, 313 deaths. The number of soldiers invalided home from all causes during the same months who had arrived home was 4803 and the number of deaths during the voyage was 17.

Tuesday, May 7th.

Sanitation of New Buildings in Rural Districts.

Mr. Walter Long announced in reply to a question that he is preparing a series of model by-laws with respect to new buildings in rural districts which will deal only with matters most in need of control for purposes of health. The series, he said, is intended as a guide to rural district councils wishing to make by-laws on the subject and will be specially applicable to places consisting of scattered dwellings.

The Education Bill of the Government.

At this sitting of the House Sir John Gorst explained and introduced the Education Bill of the Government. What it proposes is to set up a new education authority in each county and county borough which in the meantime shall have the care of secondary and technical education, but which ultimately shall also have the care of primary education. This authority is to consist of a committee of members of the county council and others, male or female, who are not members of the county council, and for the work of the committee the county council is empowered to levy a rate not exceeding *2d.* in the £. The Bill was formally read a first time.

ROYAL COMMISSION ON ARSENICAL POISONING.

Friday, May 3rd.

The Royal Commission on Arsenical Poisoning, which consists of Lord Kelvin (Chairman), Sir William S. Church, Sir William Hart-Dyke, M.P., Professor Thorpe, Dr. B. A. Whitelegge, and Mr. Cosmo Bonsor, with Dr. G. S. Buchanan of the Local Government Board as secretary, held another meeting to-day in the Westminster Palace Hotel, London, when it examined two more witnesses.

Sir H. W. Primrose, Chairman of the Board of Inland Revenue, was the first witness and in the course of his examination he said that his Board possessed considerable power over breweries. These had been given for the protection of the revenue, but some might conceivably be utilised for the protection of public health if Parliament should so provide. By the Act 43 & 44 Vict., c. 20, every brewer of beer for sale was required to take out an Excise licence (Section 10), and to make entry of his premises, &c (Section 22), by delivering to the revenue officer a statement signed by him of the description of his premises, and of every room, place, and vessel intended to be used by him for his business, specifying the purpose for which each room, place, and vessel was to be used. The officer was empowered (Section 29) to enter any part of the premises at any time either by day or night to take an account of the materials used or to be used in brewing, and of the worts and beer produced. The officer was also empowered (Section 26) to take samples of any worts, beer, or materials for brewing in the possession of the brewer By the Act 48 & 49 Vict, c 51 every brewer of beer for sale who used any description of sugar was required (Section 7) to keep it until used in a sugar store, and was prohibited from receiving sugar unless it was accompanied by an invoice from the seller containing the particulars thereof. The Commissioners of Inland Revenue were empowered to require by a notice served upon the brewer that an account of all sugar received should be kept and upon the notice being given the brewer was required to deliver to the officer of Inland Revenue all the invoices relating to sugar subsequently received. A brewer of beer for sale was prohibited (Section 8) from adulterating beer or adding any matter or thing thereto except finings for the purpose of clarification or other matter or thing sanctioned by the Commissioners of Inland Revenue. By the Act 51 & 52 Vict, c. 8, the Commissioners of the Treasury were empowered (Section 5) to prohibit by notice in the *London Gazette* the use in brewing of any substance or liquor of a noxious or detrimental nature, or which, being a chemical or artificial extract or product, might affect prejudicially the interest of the revenue. Under this power the use of saccharin in brewing was prohibited by notice in the *London Gazette* of May 18th, 1888. As regards the policy of utilising the Excise Department as a guardian of public health, the Board of Inland Revenue were of opinion that it would be necessary to confine their intervention within *narrow and well defined limits. The test for the sake of* public health was different from that applied for the purposes of public revenue. Therefore it would be an additional duty if the department had to test for soundness. He thought that the duty was one that would better be intrusted to the various localities It could not be said that the department had taken any definite action with reference to the recent epidemic except to test samples of wort and beer for arsenic and to repay the duty on contaminated beer which was on brewery premises and which was destroyed. The Board, of course, considered whether any preventive action could be taken by *them. But the facts connected with the epidemic were then*, and to some extent still were, obscure, and eventually it was decided, after conference with the Treasury and the Local Government Board, to await the result of the several inquiries which were instituted, more especially *that of the present Royal Commission.*

Dr. James Campbell Brown, professor of chemistry in University College, Liverpool, and Victoria University, and chief of the county laboratory, Liverpool, was the other witness examined. He presented to the committee the results of analyses of various substances for arsenic, among them the results of 890 samples of beer. Of 52 samples of beer accurately determined one contained as much as 1·3 grains of white arsenic per gallon and two as little as from 0·03 to 0·06 grain of white arsenic per gallon. 16 samples were approximately estimated to contain between one-half grain and one grain per gallon Of brewing sugars one black glucose contained nine and three-quarter grains per pound and another eight grains per pound, these being the highest proportions. 48 samples of malt had been analysed during three months from private sources. All except six contained arsenic in quantities varying from a minute trace up to a quarter of a grain per pound. The six samples of malt free from arsenic had all been brushed after they came from the kiln. Six additional samples of malt had been analysed in March. These showed a great improvement The largest quantity was 0·04 or one-twenty-fifth of a grain per pound, and two contained only the minutest trace—practically nothing. 19 samples of yeast were analysed, all of which (except one) contained a distinct trace of arsenic. The quantity in each was too small to be determined, but the average quantity in the 18 samples was found to be 0·015, or one sixty seventh of a grain per pound. Latterly 14 additional samples of yeast had been analysed, all of which except two contained similar quantities of arsenic He had analysed six samples of brown oil of vitriol obtained from Messrs. Bostock. The first when received on Nov. 27th, 1900, was clear and brown, but it was supersaturated with arsenic. It contained 2·6 per cent. of arsenious oxide. On standing in a cool place for some weeks, with occasional disturbance, it gradually deposited crystals on the sides and bottom of the bottle and when the clear decanted acid was analysed on Jan. 17th, 1901, it contained only 1·12 per cent. of arsenious oxide, the rest having been deposited in the form of prisms, presumably rhombic. When these crystals were placed under the microscope, moist with oil of vitriol as they were, and a drop of water was added to dilute the oil of vitriol, the crystals cleaved into octohedra with flat sides, while some dissolved in the hot acid. On leaving the crystals they gradually grew, especially on the flat sides, and in two hours they were large and perfect octohedra. Other samples analysed in 1901 contained 1·92 per cent. of arsenic, including crystals deposited, 2·36 per cent., 2·24 per cent., and 2·5 per cent. All selenium was removed, as well as other impurities, before weighing the arsenic. Every article contained selenium, but only in very small quantities The average was probably about 0·005 per cent. His search for selenium in the sugars was an after-thought, and it was not very perfect and he did not find it. He added a small quantity of selenium to a sugar and on analysing the sugar he found that. He did not wish to be positive about selenium in the sugars because his examination for it was not a crucial one. He would not be prepared to go into the witness-box and swear that there was no selenium in the sugars. The city of Liverpool was completely cleared of beer made from Bostock's sugar before Dec. 18th, and in the county of Lancaster *only* a few samples here and there were found after that date. But still arsenic did not disappear from the beer sold even by perfectly reliable houses whose [illegible] [illegible]ical In some instances [illegible] brewer in the midlands [illegible] as Liverpool yeast which had been [illegible] sugar Beer from the brewery before [illegible] proportion of hops was added, was found to be more arsenical than the finished beer. This was usually [illegible] was small, but yeast and hops [illegible] arsenical beer Very large quan[illegible] cells. In slight cases the ye[illegible] the beer was drained off were found to contain some arsenic even when the finished clarified beer as sold contained practically none. Hops were found to be free from arsenic, the exceedingly minute trace suspected in one case being too small to be identified. The arsenic was in all cases investigated clearly traced to the malt The malt used was found to contain more arsenic than the finished beer made from it. A sample of beer made from good malt which had been dried with the best fuel was found to contain as much as one twelfth of a grain of arsenic per gallon before racking. This whole brew was destroyed. Another sample was made from very similar malt but not analysed until it was ready for sale, and it contained only one-[illegible]

[illegible] known to be liable to contain arsenic, and to leave out of account all the other things, known or unknown, which were liable, or would in the future be liable, to be in some way contaminated with other things. Any new legislation should aim at securing immunity from contamination for all kinds of food and drink Considering the fact that the use of arsenical glucose was the result of combined ignorance and carelessness, that it was immediately stopped when discovered, and that it was not likely ever to occur again, and considering also that arsenic was exceedingly likely to get into beer from malt, and that, in fact, minute traces were very seldom absent, it would be vain to prohibit the use of [illegible] ing arsenication of [illegible] the use of sugars [illegible] supposed that the [illegible] both glucose and [illegible] and Drugs Acts [illegible] as they were de[illegible] They could not g[illegible] coke merchant or to the sulphuric acid maker, nor could they take samples of coke or of sulphuric acid even as they were delivered to the maltster or glucose maker In his opinion they ought to have this power. Legislation was necessary to make it compulsory for manufacturers to test every bulk or batch sent out of any article which was to be [illegible]

SATURDAY, MAY 4TH.

The Commission held another meeting to-day in the Westminster Palace Hotel, Lord KELVIN presiding

Mr. THOMAS WATSON LOVIBOND, managing director of the Newcastle Breweries, Limited, and ex-chairman of the Country Brewers' Society, was the first witness examined. He said that he looked upon sugars and other adjuncts as absolutely necessary for modern brewing. If they were properly chosen they improved the [illegible] in some cas[illegible] enabled at [illegible] than was t[illegible] weeks at t[illegible] they coul[illegible] adjuncts. [illegible] the very finest, English barley was not fitted for use by itself Therefore the English barley grower would not benefit by [illegible] Speaking on behalf of the trade, [illegible] [illegible] was constantly being made that [illegible] trade did not use adjuncts. It was [illegible] use of adjuncts was in a minority [illegible] a minority of numbers, because these 5000 publican brewers represented only 3·8 per cent of the total brewing materials used in England and Wales. It was the publican brewers who used brewing sugars to a very small extent, while few of the important brewers did not use them. In the case of his own company they had analysed very carefully all their materials and products and they had found arsenic only in one case, and that was in a sample of malt dust, which, of course, did not go into the beer. They used for drying the malt a high class of oven coke which was found to be free from arsenic. They had given up glucose for a good many years and the only adjuncts they now used were inverted cane sugar and maize grits They inverted the former by means of yeast and the latter by natural diastatic conversion They gave up using sulphuric acid because it was a dangerous and unpleasant material to have in a brewery and because they found a better method of conversion He quite admitted that makers of invert sugar [illegible] was made he never heard of any injury whatever arising from the use of malt and when the inquiries were instituted which led to the suspicion that malt might be a contributory cause of danger in the production of beer his firm at once submitted samples of malts and subsequently of cokes and coals for analysis. The opinion gaining ground that coal was a safer material to use than coke or a mixed fuel, they at once used coal only, which they had continued to do Witness submitted a statement which, he said, proved conclusively that coal might be regarded as the best and purest fuel at present.

Mr. LAWRENCE BRIANT, brewers chemist, London, said that since the end of November, 1900, he had examined for arsenic considerably over 2000 samples of beer and brewing materials. He was requested by the chemical manufacturing section of the Brewery Traders' Association to make inquiries on their behalf into the presence of arsenic in their manufactures and the precautions taken to prevent such contaminations With this object he had visited the works of the firms connected with the association which, whilst not including absolutely the whole of the firms supplying brewers with preservatives [illegible] method of analysis [illegible] also examined a [illegible] Marsh test he was [illegible] of arsenious [illegible] arsenic he meant [illegible] when operating [illegible]ation. The substances into which he had made [illegible] materials, antiseptics, finings, caram[illegible] foods. The hardening of the brewing waters was extensively carried out. The following materials were used, the proportions given being the maximum generally added—viz, sulphate of lime, 50 grains per gallon, sulphate of magnesia, 10 grains, chloride of calcium, 20 grains, chloride of sodium, 50 grains, potassium sulphate or chloride, 15 grains; and kainit, 50 grains. Excepting caramel, the largest amount of arsenic which could be introduced into beer by any of these substances which he had examined could be only 0·00002 of a grain per gallon The worst sample of caramel which he had examined could not introduce more than one-four-hundredth of a grain per gallon of arsenic. The yeast foods used by brewers were of two descriptions—phosphatic and nitrogenous. Phosphatic yeast foods consisted of the phosphates of potash and ammonia, in some cases mixed with malt, pea, or bean flour. The [illegible] amount of arsenic which was present in some was due to the difficulty [illegible] adjourned.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

BAIN, JAMES GORDON, M.B., C.M.Glasg., has been re-appointed Honorary Medical Officer to the Wellington (Somerset) Cottage Hospital

BOWKER, C. V., M.B Syd., has been appointed Medical Superintendent, the Sydney Hospital, New South Wales, vice W. C. McClelland, resigned.

BOYD, JOHN J., M.B Glasg., D.P.H Camb., has been appointed Medical Officer of Health to the County Borough of South Shields.

BREWERTON, ELMORE, F.R.C.S Eng., has been appointed Ophthalmic Surgeon to the Metropolitan Hospital.

BRIERLEY, T. B., M.R.C.S., has been appointed Certifying Surgeon under the Factory Acts for the Tattenhall District of Cheshire.

BROWN, GRANGER C., M.R.C.S., L.R.C.P.Edin., has been appointed Honorary Medical Officer to the Holloway and North Islington Dispensary, vice J. R. T. Conner, resigned.

BROWN, H. E., M.B., Ch.B. Glasg., has been appointed Assistant Medical Officer, Southstone Asylum and Poorhouse, Greenock, vice M. Macdonald, resigned

BUTLER, G. H., L.R.C P. Lond., M.R C.S., has been appointed a Member of the Southern Tasmanian Board of Dental Examiners.

CARGILL, W. D., M.B , M.Ch. Syd., has been appointed, *pro tem.*, Medical Officer at Roma, Queensland.

CHESSON, HERBERT, L R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Superintendent to the Hospital for the Insane at Goodna, Queensland.

COAD, S. A., L R.C.P. Lond , M.R.C.S., has been appointed Medical Officer for the North District of Luton.

CORBIN, A. G., M.B. Syd., B Sc., has been appointed Senior Resident Medical Officer, Sydney Hospital, New South Wales.

CREED, J. M., L.R C.P. Edin., M.R.C.S., has been appointed a Trustee of the Public Library of New South Wales.

DODS, J. E., M.B , B S. Edin., has been appointed, *pro tem.*, Health and Medical Officer at Brisbane, also Visiting Surgeon to the Prison at Brisbane, the Penal Establishment at St Helena, the Fortitude Valley Police Gaol, the Dunwich Benevolent Asylum, and the Lock Hospital at Brisbane.

FENDICK, MAUDE E., L.S.A., has been appointed Assistant House Surgeon to the North Riding Infirmary, Middlesbrough.

FINLAY, WILLIAM, M.D., L.R C.P., L.R.C.S. Edin., has been appointed Officer of Health for the Shire of Tungamah, Victoria, Australia.

FOX, J. R., M.B Melb , has been appointed Public Vaccinator for Stawell, Victoria, Australia.

GMELIN, O. F., M.D. Leipz., has been appointed Officer of Health for the Shire of Eltham, Victoria, Australia.

GROSVENOR, RANDOLPH L, B A. Cantab , L R.C.P. Lond., M.R.C.S., has been appointed Honorary Physician to the Chelsea, Brompton, and Belgrave Dispensary, Sloane-square, S.W.

HEDLEY, W. T., M.B , C M. Edin., has been appointed Certifying Surgeon under the Factory Acts for the Hallaton Rural District of Leicestershire.

HILLYAR, CECIL BISSHOPP, L R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been re-appointed Honorary Surgeon to the Wellington (Somerset) Cottage Hospital.

HUMPHRY, ERNEST, L.R C.P. Lond., M.R.C.S., has been appointed Visiting Medical Officer to the Townsville State Orphanage, Queensland

JAMIESON, SYDNEY, M.B., Ch. M. Edin., L.R.C.P. Lond , M R.C.S., has been appointed Lecturer on Pathology at the University of Sydney, New South Wales

JONES, WILLIAM WATKINS, M.D., C.M. Edin., D.P.H. Cantab., has been re appointed Medical Officer of Health for the Gelligaer and Rhigor Rural District Council, South Wales.

JONES, W. W. S., L K.Q C.P. Irel., L.R.C.S., has been appointed Vaccinator for Glamorgan, Tasmania.

LEIGH, A., L.R.C P. Lond., M.R.C.S., has been appointed Certifying Surgeon under the Factory Acts for the Malpas District of Cheshire.

LONERGAN, T. J., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Officer of Health to the Southern Cross Local Board of Health, West Australia.

MALIN, J. W., B.A., M.B., B C., has been appointed Casualty House Surgeon to the General Hospital, Bristol.

MARTIN, A. F., M.B , Ch.B. Vict., has been appointed Assistant House Surgeon to the General Hospital, Bristol.

MATHEWS, C., M.R.C.S., has been appointed Medical Officer for the Atherington District by the Barnstaple Board of Guardians, vice F. T. Andrews, resigned.

MEREDITH, JOHN, M.D Edin., L.R C.S., has been re-appointed Honorary Medical Officer to the Wellington (Somerset) Cottage Hospital.

MINCHIN, E J., L K.Q.C.P. Irel., L.R.C.S., has been appointed Public Vaccinator for Portarlington, Victoria, Australia.

MORETON, T. W. E., L R.C.P. Lond., M R C S., has been appointed Certifying Surgeon under the Factory Acts for the Tarvin District of Cheshire.

OPIE, EDWARD AUGUSTUS, M.B. Durh., M.R.C.S., has been re-appointed Honorary Medical Officer to the Wellington (Somerset) Cottage Hospital.

O'REILLY, V., M.B., B.Ch. Irel , has been appointed Certifying Surgeon under the Factory Acts for the Civil Parish of Parbold, in the Wigan District of Lancashire.

PENNY, H. J., L K.Q C.P. Irel , L R C.S., has been appointed Vaccinator for Scottsdale, Tasmania.

POLLARD, W. R, M.R.C.P. Edin., L.R.C.S. Irel., has been appointed Medical Officer and Public Vaccinator, No. 2 District, Blackburn Union.

PRAAGST, G. D., M.B. Melb , has been appointed Public Vaccinator for Murchison, Victoria, Australia.

PRENDERGAST, J. J., M.D. Irel., L.R.C.P. Edin., M.R.C.S., has been appointed Vaccinator for Kelly Basin, Tasmania.

PRING, ARTHUR, L.R.C.P. Lond., has been appointed Medical Officer at Beaudesert, Queensland.

READ, CLARENCE, L.R C.P. Lond., M.R.C.S., has been appointed Honorary Medical Officer, North Shore Hospital, Sydney, New South Wales.

RENTON, M. W., M.B , C.M. Aberd., has been appointed Medical Officer with the Medical Corps in South Africa.

ROE, JAMES M., M.B. Syd., has been appointed Medical Officer at Mareeba, Queensland

SAIGOL, R. D, L M. & S. Punjab, L R.C.P. & S.E., has been appointed House Surgeon to the Birmingham and Midland Eye Hospital.

SKINNER, G. H., L.R C.P. Lond., M R.C.S., has been appointed Vaccinator for Gormanston, Tasmania.

SPRING, WM A., M.B., Ch.B. Melb., has been appointed Officer of Health for the Shire of Traralgon, Victoria, Australia

STACY, H. S., M.B , Ch.B. Syd., has been appointed Resident Pathologist, Sydney Hospital, New South Wales.

STRAHAN, E A., M.B. Melb , has been appointed Public Vaccinator for Korumburra, Victoria, Australia.

THOMAS, G. H. W., L R C.P. Lond., M.R.C.S., has been appointed Medical Officer at Chillagoe, Queensland.

TRENOW, N. A. A., L R C.S Irel., L.S.A. Lond., has been appointed Medical Officer at Croydon, Queensland.

WILKINSON, W. C., M.D. Lond., M R C.P. Lond., M.R.C.S., has been appointed Lecturer on Medicine at the Sydney University, New South Wales.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BARNWOOD HOUSE HOSPITAL FOR THE INSANE, Gloucester.—Junior Assistant Medical Officer. Salary £150 per annum (rising to £170) with board, &c.

BEDFORD COUNTY HOSPITAL.—House Physician. Salary at rate of £80 per annum, with board, lodging, and washing provided.

BETHLEM HOSPITAL.—Two Resident House Physicians for six months. Honorarium at the rate of £12 12s. each per quarter, with apartments, board, and washing.

BIRKENHEAD UNION.—Assistant Medical Officer. Salary £120 per annum, with board, washing, and apartments.

BIRMINGHAM GENERAL DISPENSARY.—Resident Locums for two to three months. Terms 4 guineas per week, with furnished apartments.

BOROUGH OF HAMPSTEAD.—Medical Officer of Health. Salary £600 per annum.

BOROUGH OF SOUTHEND-ON-SEA.—Medical Officer of Health. Salary £400 per annum, rising to £500 per annum.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon, single. Salary £100 per annum, with board and residence.

BURY INFIRMARY.—Senior and Junior House Surgeon. Salary, Senior £110, Junior £90, with residence and attendance.

CHELTENHAM GENERAL HOSPITAL.—Junior House Surgeon, unmarried. Salary £60 per annum, with board, lodging, and washing.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.—Resident House Surgeon. Salary £110 per year, with board, apartments, and laundress.

CHORLTON UPON-MEDLOCK DISPENSARY, Manchester.—Resident House Surgeon, unmarried. Salary £130 per annum, with furnished rooms and attendance.

COUNTY ASYLUM, Prestwich, Manchester.—Assistant Medical Officer, unmarried. Salary £150 per annum, increasing to £250, with board, apartments, and washing.

COUNTY BOROUGH OF SOUTHAMPTON.—Assistant Medical Officer of Health. Salary £150 per annum, with residence and board.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—Assistant House Surgeon. Salary £50 per annum, with furnished apartments, board, and washing.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—House Physician for six months. Honorarium £25, with board, residence, &c

GENERAL INFIRMARY, Leeds.—Resident Obstetric Officer for six or twelve months. Also House Surgeon for twelve months. Also House Physician for six months. Board, lodging, and washing provided in each case.

GOVAN DISTRICT ASYLUM, Crookston, near Paisley.—Junior Assistant Medical Officer. Salary £120 a year, with rooms, board, laundry and attendance.

GREAT NORTHERN HOSPITAL, Holloway-road, N.—Casualty Officer for six months with eligibility for re-appointment. Salary at the rate of £52 10s. per annum.

GROVE HALL ASYLUM, Bow, London, E.—Junior Assistant Medical Officer. Salary £120 a year, with board, apartments, attendance, and washing.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Assistant Resident Medical Officer. Salary £100 per annum, with board and residence.

HULL ROYAL INFIRMARY.—Junior Assistant House Surgeon. Salary £60, with board and lodging.

JARROW MEMORIAL HOSPITAL.—House Surgeon, unmarried.

KENT COUNTY OPHTHALMIC HOSPITAL, Maidstone.—House Surgeon. Salary £100, with board and lodging.

LIVERPOOL HOSPITAL FOR CONSUMPTION.—Non-resident Medical Officer. Salary £70 per annum.

LIVERPOOL STANLEY HOSPITAL.—Third House Surgeon. Salary £70, with board, residence, &c

METROPOLITAN ASYLUMS BOARD.—Six Assistant Medical Officers, unmarried, at the Fever and Small-pox Hospitals. Salary £160 per annum, rising to £200, with board, lodging, attendance, and washing.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Junior Resident Medical Officer. Salary £80 per annum, with board, attendance, and washing.

NEW HOSPITAL FOR WOMEN.—Two Resident Medical Officers; also a Clinical Assistant and a Pathologist. All females.

NORTHAMPTON GENERAL INFIRMARY.—Honorary Ophthalmic Surgeon. Also Honorary Assistant Surgeon.

NORTH LONDON HOSPITAL FOR CONSUMPTION, Hampstead.—Junior Resident Medical Officer. Honorarium, £60.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Resident Medical Officer. Also Assistant Resident Medical Officer, both for six months. Salary at the rate of £50 per annum, with board, residence, and washing.

NOTTINGHAM GENERAL INFIRMARY.—Senior Resident Surgeon. Salary £200 per annum, increasing by £15 every year. Also two Assistant Resident Surgeons Salaries £160 per annum each, increasing by £10 every year, furnished apartments, attendance, light, and fuel. Unmarried.

PARISH COUNCIL OF APPLECROSS, Loch Torridon District.—Medical Officer and Vaccinator. Salary £95, free house accommodation and other emoluments.

PARISH OF FULHAM.—Second Assistant Medical Officer. Salary £80 per annum, with board, furnished apartments, and washing.

PARISH OF ST. MATTHEW, Bethnal-green.—Clinical Assistant, unmarried, for the Infirmary at Cambridge-road, N.E., for three months, with possible extension. Salary at the rate of £80 per annum, with board, lodging, and washing.

QUEEN'S CENTRAL HOSPITAL, Cradock, Cape Colony.—House Surgeon and Secretary, unmarried. Salary £150 per annum, with board. lodging, and washing.

[illegible] Assistant Medical Officer. [illegible] nd washing. [illegible] House Surgeon for [illegible] Salary at the rate [illegible] ary £60 per annum, with board, lodging, and washing. Also Assistant House Surgeon. Salary £50 per annum, with board, lodging, and washing

ROYAL FREE HOSPITAL, Gray's Inn road, W.C—Senior Resident Medical Officer. Salary £100 per annum, with board, residence, and washing

ROYAL HALIFAX INFIRMARY.—Third House Surgeon, unmarried. Salary £80 per annum, with residence, board, and washing

ROYAL SEA BATHING HOSPITAL, Margate —Assistant Resident Surgeon. Salary £60 per annum, with board and residence.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, West Strand, W.C.—Clinical Assistants for six months

ST. MARYLEBONE INFIRMARY, Notting hill, W.—Second Assistant Medical Officer. Salary at the rate of £80 per annum, with board, &c.

SHEFFIELD ROYAL HOSPITAL.—Junior Assistant House Surgeon, unmarried Salary £50 per annum, with board (exclusive of wine and beer) and lodgings.

SOMERSET HOSPITAL, Cape Town —Senior Resident Surgeon. Salary £400 per annum, rising to £500, quarters and rations. Free passage to Cape Town.

STOCKPORT INFIRMARY —Assistant and Visiting House Surgeon. Salary £70, with residence, board, and washing Also Junior Assistant House Surgeon for six months. Salary at rate of £24 per annum, with board, washing, and residence.

THE CHIEF INSPECTOR OF FACTORIES gives notice of Vacancies for Certifying Surgeons under the Factory Acts at Elgin, in the county of Elgin, at Holyhead, in the county of Anglesey; at Brownhills, in the county of Stafford, at Crosshills, in the West Riding of the county of York; and at Darvel, in the county of Ayr.

THROAT HOSPITAL, Golden square, W.—Junior House Surgeon (non resident) Salary at the rate of £100 per annum and lunch daily.

TOWCESTER UNION.—District Medical Officer and Public Vaccinator. Salary £60 per annum, with allowances

WEST HAM BOROUGH ASYLUM —Senior Assistant Medical Officer. Salary £200, rising by £25 annually to £250 Also Junior Assistant Medical Officer, salary £150, rising by £25 annually to £200. Board, furnished apartments, and washing provided.

WEST HAM HOSPITAL, Stratford, E —Junior House Surgeon. Salary £75 per annum, with board, residence, &c.

WESTON-SUPER MARE HOSPITAL AND DISPENSARY —Medical Officer. Salary £100 per annum, with board, lodging, and washing.

WREXHAM INFIRMARY.—House Surgeon Salary £100 per annum, with board and washing.

Births, Marriages, and Deaths.

BIRTHS.

DEVEREUX.—On May 5th, at North House, Tewkesbury, the wife of William C. Devereux, M A., M B, of a daughter.

FEGAN—At Old Charlton, Kent, the wife of R. Ardra Fegan, M R.C S., L.R C P., of a daughter.

FITCH.—On April 29th, at Church Gate House, Chaddesley Corbett, Kidderminster, wife of Dennis Fitch, M.R.C.S, of a son.

MAWBY—On April 21st, at Mow Fen Hall. Littleport, the wife of F. Willders Mawby, Surgeon, of a daughter

MERCER.—On May 3rd, at Waterloo-road South, Wolverhampton, the wife of W. Stainton Mercer, M.R.C S, L.R.C.P. Lond., of a daughter.

PRALL.—At Rawalpindi, Punjab, India, on the 24th of April, the wife of Captain C. B Prall, Indian Medical Service, of a daughter.

RITCHIE.—On May 7th, at Beaumont-street, Oxford, the wife of James Ritchie, M.D, of a daughter.

MARRIAGES.

HACKNEY—WATTS.—On April 30th, at the parish church, Bromley, Kent, Alfred Clifford John Hill Hackney, L.R.C.P. Lond., M.R.C S., of Hythe, Kent, to Ellen Lilian, elder daughter of James Watts, Bromley, Kent.

HUTCHINSON—WALLEY—On April 30th, at St. Matthew's Church, Oakley square, N W [illegible] to Constance E. [illegible] Principal of the [illegible]

MORITZ—BENNETT.—[illegible] Moritz, M B. Ca[illegible] Highgate, to Co[illegible] of Avenue-road, [illegible]gate, N.

PRESTON—BOWKETT—On May 8th, at Emmanuel Church, West Hampstead, by Rev E. W. Pownall, M A., Francis H. Preston, M.A., M R.C.S, of Plumstead, to Hilda E Bowkett, daughter of the late Thos. E. Bowkett, M.R.C.S

DEATHS.

HARTREE.—At Cranmer-road, Cambridge, John Penn Hartree, M.A., M.D, aged 57

WALLIS—On May 6th, at High-street, Colchester, William Beale Wallis, Brigade Surgeon late 74th Highlanders, aged 71.

WATTS—On May 5th, at Shanklin, the Rev. Ernest Henry Richmond Watts, M.A., M B Cantab., Assistant Master St. Paul's School, of Russell-road, Kensington, aged 41.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births Marriages, and Deaths

Notes, Short Comments, and Answers to Correspondents.

UNQUALIFIED MIDWIFERY.

THE body of a woman named Esther Cain was interred in Thornley (Durham) churchyard on April 20th last, the certificate being signed by "W. H. Ryott" and the cause of death specified as "parturition collapse" An order for disinterment, however, was received last week and an inquest was held by the coroner, Mr. Maynard, subsequently to a post mortem examination conducted by Dr. Hugh Russell of Trimdon Grange, Mr. J Arthur of Wingate, and Mr. G. C. Murray of Durham, the last-named gentleman acting on behalf of Ryott. At the inquest the husband of the deceased woman, an overman, stated that his wife was 35 years of age and the mother of nine children. Early on the morning of April 17th she sent witness for Mr. Ryott to attend her confinement and that gentleman came back and forward the [illegible] obtained, but between two and three o'clock on the morning of the 18th they told him to go for more assistance He went for another practitioner, but upon returning with that gentleman his wife was dead A fortnight or three weeks before, when the deceased chose Mr. Ryott to attend her witness warned her to be particular and to ask him about his qualification. Ryott told her that he was qualified to sign any paper.—Margaret Calvert, a neighbour, said that on the night of the 17th the deceased asked Ryott to give her chloroform, but he said that he dare not unless someone else was present to assist him in administering the anæsthetic. The deceased next asked Ryott to use instruments and he did so, but they were too short. Witness could not say if the longer instruments sent for were ever used. About 2 A.M. on the 18th Ryott again went for the practitioner who first came to his assistance. The two were with the patient about 20 minutes and then they left. Shortly after the deceased gave a shout, gnashed her teeth, and expired During the day she only had a few drops of tea. Ryott gave her a black liquid several times which seemed to ease the pain and he also administered a white powder which he said was to make her sleep. They did not notice any bleeding until after the short instruments were used and then it was very slight.—Dr. Hugh Russell deposed that he made a post-mortem examination on April 25th, assisted by others. The body was well nourished The left eye was slightly congested and there was a redness below both eyes. The breasts contained milk. The child was found to be a female. There were marks of compression upon the chin, the mouth, and the upper part of the chest, while there were two bruises on the back and side of the head an inch square. The inner part of the scalp was also bruised and the brain was soft. There were signs of considerable pressure on both the upper and lower limbs. In his opinion the woman's death was due to uterine rupture, and the signs of strong compression on the face and chest of the child led to the conclusion that the rupture was caused spontaneously. The fracture of the child's skull was due either to instruments or to pressure of the fingers He himself would have delivered the deceased long before death had occurred and her life would have been saved as well as that of the child in all probability. There was incapacity in the delivery of the woman and the long delay was the cause of death. She ought to have been safely delivered before noon on the 17th The child, he thought, had not water on the brain and she died shortly before the mother. Under the circumstances to give ergot of rye was most improper and when the deceased asked for chloroform it was a right and proper thing for her.—Mr. James Arthur corroborated the previous witness. Roughly speaking the patient had been left undelivered 12 hours longer than she ought to have been. In answer to the solicitor appearing on behalf of Ryott, witness said that there would be some difficulty to an ordinary medical man in the case.—Mr George Campbell Murray of Durham, called as a witness for Ryott, agreed with the evidence of Dr. Russell and Mr. Arthur, except that he was of opinion that there was hydrocephalus. He thought that the mother's life might have been saved had it been known that hydrocephalus was present.—An hour and three-quarters deliberation resulted in the jury returning the following verdict: "That the said Esther Cain came to her death by not being delivered of a female child through an error of judgment, want of skill, and neglect in not calling in a medical man sooner, but not sufficient to find William Harry Ryott guilty of manslaughter; but we are unanimously of opinion his practising in this way should be at once abandoned."

CHILDREN AND ALCOHOL.

THE terrible evils resulting from the alcoholic habit being acquired by children were strikingly exemplified in a letter addressed by Sir Thomas Barlow to the members of the United Kingdom Band of Hope Union and read at their recent meeting held in Exeter Hall. As Sir Thomas Barlow truly said, it is immensely difficult to give statistics proving that there is an appreciable amount of actual disease caused in children by the administration of alcohol. But it is easy to give illustrations showing that this does occur and the most notable example quoted by Sir Thomas Barlow was that of an infant who died when she was 12 months old. She was the subject of gin-drinker's liver in the most aggravated and typical form. The mother had given this child small quantities of gin and beer for a considerable part of her short life. Not the least interesting portion of Sir Thomas Barlow's letter was the explanation which it contained of his views on the question of heredity in alcoholism. It has been lately maintained that alcoholism and alcoholic habits are not in a true sense hereditary. But even if they are not handed on by direct transmission it was surely a matter of common experience that in some families one member after another succumbed to alcoholism. If this was brought about by the bad example of the parents and by habits of "tippling" induced in early life in a household where drinking was common the net result was just as disastrous as if it were a specifically inherited tendency. Nobody would deny the terrible risk of alcoholism in families where the different members manifested some form of defective nerve control, as, for example, perversion of moral sense, or eccentricity of behaviour, or actual insanity or hysteria. Dr. W. J. Collins, who was the chairman of the meeting, said that the London County Council had in spite of opposition persisted in a policy of temperance and had endeavoured to dissociate enjoyment, recreation, and amusement from the possible dangers of the drink traffic. In dealing with the question of the monopoly of drink he thought that the justices of the peace had entirely failed to do their duty. Mr. A. Pearce Gould considered that not only did alcohol find no place in the proper dietary, home life, and training of a child, but that it was distinctly harmful. If they were to keep in view the rearing of a strong race they must put alcohol away. Professor Sims Woodhead, writing from Cambridge, pointed out how alcohol, when acting on fully-developed tissues, produced sufficiently dire results, but that its effects on the actively growing and developing tissues of a child were most disastrous. The child who was taking alcohol could never be in perfect health. Amongst the speakers at the meeting were Mr. W. McAdam Eccles and Dr. T. Rushbrooke.

SEBORRHŒA.

To the Editors of THE LANCET.

SIRS,—May I ask advice as to how to treat a typical case of loss of hair with much formation of scurf and a dry scalp? My patient has persevered for weeks with a lotion which I ordered him (two grains of resorcin, five minims of castor-oil, and one ounce of rectified spirits of wine), and his scalp must by this time be thoroughly aseptic, but the scurf is as plentiful as ever.

I am, Sirs, yours faithfully,

May 8th, 1901. S.

LIFE AND WORK IN THE TROPICS.

IN an address delivered at the Church Missionary House on Feb. 22nd and published in the May number of the *Church Missionary Intelligencer*, Dr. Herbert Lankester has offered a few suggestions founded on his experience gained during many years connexion with the work of foreign missions. He reminded his hearers that with the exception of North Japan and North-West America all the Church Missionary Society's stations were situated in tropical or sub-tropical regions and under these conditions the work entailed much train, both physical and mental. The physical difficulties were connected with the high temperature, the unaccustomed food, and the special tropical diseases, of which he instanced malaria, dysentery, sprue, and cholera. Mental breakdown, manifested by loss of memory and inability to think, was unfortunately too often met with; the causes were overwork and responsibility, home sickness, contact with suffering, and, especially among ladies, the dread of a language examination. He assured his audience that a spirit of devotion counted for much in the preservation even of bodily health, and in addition he advised them when in the tropics to take plenty of exercise; to sleep with open windows; to have a cold, or at any rate a relatively cold, bath every morning if possible; not to study when tired; to go to bed early and to get up early; to eat simple food taken at regular meals; to learn to cook; to avoid worry and hurry; and to cultivate a useful hobby, such as photography or carpentry.

"THE EFFECTS OF THYROIDIN."

To the Editors of THE LANCET.

SIRS,—"K. E. M." gives the symptoms of a case in THE LANCET of April 27th, p. 1250, as a result of excessive doses of thyroidin. I suffer from identical symptoms and I did not take a single molecule of thyroidin in my life. I had dysentery followed by internal hæmorrhoids and prolapsus ani to an increasing extent. I took strychnia for some time until the smallest dose would produce spasms of the diaphragm and facial muscles. The smallest quantity of alcohol, even that in a bottle of ginger ale, produces neuralgic pains in the legs, especially in the left, and singing in the ears; I am prone to the tottering gait and great pains in the lower limbs in the evening after walking, becoming severe as I lie on a sofa or bed. I had the prolapsus operated on successfully, and still the symptoms continue. I find five grains of Dover's powder and five grains of antipyrin at night give relief. Bromide makes me worse though giving evanescent ease. I, too, increased in weight from 11 stones to 13 stones 5 pounds, and reduced it by walking to 12 stones. I attribute the affection to congestion of the nervous system. I suffer from intermittent heart and sleeplessness. Digitalis, strophanthus, and ext. ergotæ, guttæ duæ of each, have a beneficial effect.

I am, Sirs, yours faithfully,

West Kingstown, May 2nd, 1901. JOHN ROCHE, M.D. R.U.I.

MILITARY MEDICAL OFFICERS' UNIFORM.

DURING the eighteenth century the organisation of the military medical department was the subject of various royal ordinances in France, but it was not until 1757 that Louis XV. granted the officers a distinguishing uniform. According to Dr. G. Fargin, who discovered his authority in the Nancy library among the manuscripts which were bequeathed to that institution by M. Guerrier de Dumast, the original *arrêté* communicated to the army was couched in the following terms:—

> "On the account which I furnished to the King of the representations made to me by M. de la Martinière and by the Sieur Desports, surgeon-major of the army of Westphalia, concerning the necessity of giving a uniform to the surgeons employed in the army, to the end that they may be recognised on the day of battle and under other circumstances when there may be urgent need of their services, His Majesty desires that they should cause one to be made in conformity with the attached *mémoire*. I pray you to give them your orders on that and to inform the commandants of regiments with the army in Westphalia of what has been ruled for their surgeon-majors. It is necessary that the garments should be of the colour of the patterns which I send you, so that they may not be like those worn by Commissaries and officers of the Line.
>
> I am very perfectly, Monsieur, your very humble and very obedient servitor, R. DE ROYER DE PAULMY."

The *mémoire* alluded to, which is endorsed "Fait à Compiègne, le 15 Juillet, 1757," contains explicit instructions regarding the confection of the surgeon's uniform. The coats were to be *gris d'épine* in colour with red facings, their shape was to be *en surtout*, and they were to be fitted with long pockets. The breeches and vests were to be red, while all buttons were to be of gold thread. Surgeon-majors with sumptuous proclivities could further adorn themselves with gold lace, but if of frugal mind they were permitted to replace it with plain braid.

◆

P. M.—If the patient died after admission to the hospital the coroner can order a post-mortem examination to be made without any fee. Whether the house surgeon is legally entitled to a fee for his attendance is doubtful, but he never receives such a fee.

H. J. H.—The address of the General Medical Council Offices is 299, Oxford-street, London, W. If our correspondent will communicate with the registrar he will be informed as to what steps should be taken. There is a small fee.

Cymro will find at page 647 of the last Students' Number of THE LANCET, published on Sept. 1st, 1900, a full answer to his question.

ERRATUM.—In the report of the meeting of the Clinical Society held on April 26th (THE LANCET, May 4th, p. 1276) the observations on Dr. Lee Dickinson's case attributed to Dr. A. G. Phear were not made by that gentleman. The observations on Dr. Percy Kidd's case attributed to Dr. W. Forbes Ross were made by Dr. A. G. Phear.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 9th, 1901.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind	Rainfall.	Solar Radia in Vacuo.	Maximum Temp. Shade	Min. Temp	Wet Bulb	Dry Bulb	Remarks at 8.30 A.M.
May 3	30·33	ENE	...	112	70	47	49	51	Cloudy
" 4	30·33	ENE	...	101	62	43	46	49	Cloudy
" 5	30·10	S.E.	...	95	62	44	47	48	Overcast
" 6	29·60	N.E.	...	72	65	46	45	48	Overcast
" 7	29·28	S.	0·04	102	58	44	47	51	Cloudy
" 8	29·34	N.W.	0·27	73	52	42	42	43	Overcast
" 9	29·74	N.E.	0·09	101	56	43	47	48	Overcast

During the week marked copies of the following newspapers have been received:—*Burnley Express, Cardiff Weekly Mail, Lloyd's Newspaper, Devon Weekly Times, Hampshire Independent, Blackburn Telegraph, Glasgow Times, East London Observer, Oxford Times, Bradford Telegraph, Carlisle Journal, Middlesex County Times, Tooting Herald, Bristol Mercury, Darlington Star, Liverpool Daily Post, Manchester Guardian, Kent Courier, Rochdale Observer, Sheffield Lincolnshire Chronicle, Essex Herald, Dundee Advertiser,* *Daily Telegraph, Citizen, Scotsman, Hull Morning News, Pioneer Mail, Sussex News, South Wales News, Builder, South African News, Architect, Midland Daily Telegraph, Nottingham Daily Guardian, Sunderland Echo, Harborough Advertiser, Whitehaven Advertiser, Spalding Free Press, Evesham Standard, Irish Times, Lowestoft Standard, Thanet Times, Public Health, Hertfordshire Mercury, City Press, Reading Mercury, Mining Journal, Standard, Weekly News Budget (Buenos Ayres), Local Government Journal, Surrey Advertiser, Yeovil Chronicle, Coventry Herald, West Briton Advertiser, Sportsman, Western Guardian, Colchester Mercury, Times of India, Woburn Reporter, Lynn News, Mercury (Hackney), Building News, Chatham News, &c., &c.*

Medical Diary for the ensuing Week.

OPERATIONS.

MO[illegible] Middlesex (1.30 P.M.), Samaritan (Gynæcologic[illegible] (2 P.M.), Royal Orthopæ[illegible] Gt. Northern Central (2.[illegible] Throat (2 P.M.).

TUESDAY (14th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

WEDNESDAY (15th).—St. Bartholomew's (1.30 P.M.), University College [illegible]

THU[illegible] St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

FR[illegible] Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

SATURDAY (18th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (13th).—MEDICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—8 P.M. [illegible] Officers and Council for next Se[illegible] Dr. E. Cautley: On Acute Colit[illegible] Rheumatic Chorea, its Varieties and their Treatment.

TUESDAY (14th).—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Dr. S. Martin: On a Case of Intestinal Intoxication due to Appendicitis without Local Symptoms.—Mr. Rickman J. Godlee and Mr. T. R. H. Bucknall: A Pharyngeal Pouch of Large Size removed by Operation.

THURSDAY (16th).—HARVEIAN SOCIETY OF LONDON (Stafford Rooms Titchborne-street, Edgware road, W.).—8.30 P.M. Clinical Cases.

FRIDAY (17th).—EPIDEMIOLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—8.30 P.M. Paper: Dr. Klein: What is Plague?

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN (Victoria Hospital [illegible] linical Cases will be shown by [illegible] G. Carpenter: A Note on the [illegible]

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (13th).—WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. S. Taylor: Surface Anatomy of the Chest.

TUESDAY (14th).—ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Dr. A. Macfadyen: Cellular Physiology, with Special Reference to the Enzymes and Ferments.

THURSDAY (16th).—WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. E. A. Saunders: The Modern Treatment of Obesity.

CHARING-CROSS HOSPITAL.—4 P.M. Mr. S. Boyd: Surgical Cases. (Post-Graduate Course.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. D. B. Lees: Demonstration of Selected Cases.

EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. *It is urgently necessary that attention be given to this notice.*

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to *the Agent to whom the subscription is paid, and not to* THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, MR. CHARLES GOOD. THE LANCET Offices, 423, Strand, London, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

Communications, Letters, &c., have been received from—

A.—Dr. Aikman, Guernsey; Messrs. Allen and Hanburys, Lond.; Mons. J. Astier, Asnières, France; A. M; Mr. H. S. Ashburner, Manchester.

B.—Mr. S H. Benson, Lond.; Miss K. Behnke, Lond.; Borough of Southend on Sea, Clerk of; Bury Infirmary, Hon. Secretary of; Professor Bose, Lond.: Messrs. F. B. Benger and Co., Manchester; Birkenhead Union, Clerk of; Messrs. Buchner, Schacht and Co, Lond.; Baxter's Advertising Agency, Lond; Birmingham University, Secretary of; Mr. J. J. Budge; Dr. J. B Ball, Lond.; Mr. J. Bell, Hong Kong; Mr. E T Bramber, Lond.; Dr. A. E. Burroughs, Bournemouth; Dr. A. G. Bateman, Lond.

C.—Mr. W. B Cosens, Dorchester; Cortland Wagon Co., Lond.; Messrs. Cassell and Co., Lond., Messrs J. and A. Churchill, Lond. County Borough of Southampton, Town Clerk of, Messrs. Corner and Donald, Dumfries; Dr. J. B. Christopherson, Lond.; Mr. A. W. S. Cufties, Wakefield; Mr. J. G. Carruthers, Lond.

D.—Dr. H. Damm, Copenhagen; Messrs. H. Dawson and Co, Lond.; Mr. H. Davenport, Lond.; Messrs. Duncan, Flockhart, and Co., Edinburgh, Dr. G. H. R. Dabbs, Shanklin.

E.—Mr. F. C. Eve, Hull.

F.—Messrs. J. Feeney and Co., Birmingham.

G.—Mr. T. H. Gough, Dudley; Great Eastern Railway Co.; Mr. T. W. H. Garstang, Bowdon; General Infirmary, Leeds, Secretary of.

H.—Dr. Max Heim, Bonn; Mr. J. Heywood, Manchester; Mr. J. Hindle, Cark-in-Cartmel; Mr. G. Hermanni, Lond., Dr. J. Hay, Liverpool; Mr. H. J. Hudson, Rotherham; Mr. D. Harris, Westcliff on-Sea.

I.—Messrs. Idris and Co., Lond.; Dr. H J. Ilott, Bromley; Imperialist.

J.—Dr. R. Jones, Claybury; Mr. E. Jackson, Lond. J. D. E. M; Dr. E. J. T Jones, Aberdare, Jarrow Memorial Hospital, Secretary of J. K. F., J. W.; J. A. C.

K.—Dr. W. Kidd, Lond.; Kaiser Frederich Quelle Actien Gesellschaft, Offenbach, Kelpion Co., Lond.; Mr. H. Kimpton, Lond., Messrs. Kilner Bros, Lond.; Dr. R Kirk, Partick.

L.—Mr. H. K. Lewis, Lond.; L. C.; Liverpool Stanley Hospital, Secretary of; Liverpool Hospital for Consumption, Secretary of; Local Government Board of Ireland, Dublin, Secretary of; Mr. P. Light, Birmingham; Mr. H. Littlewood, Leeds; Mr. W. W. Leigh, Treharris.

M.—Dr. P. McBride, Edinburgh; Mr. Morse, Norwich, Dr. E. W. Martin, Lond; Mr. E. Merck, Lond. Midland Medical Union, Mansfield, Hon. Secretary of; Messrs McKesson and Robbins, New York; Messrs. J. Maclehose and Sons, Glasgow; Maltine Manufacturing Co, Lond.; Admiral Morant, Lond.; Lieutenant-Colonel Massy, Lond.; Mr. C. P. Mathew, Exeter; Mr. R. Montgomery, Vienna; Mr. Harrison Martindale, Lond. Medical Graduates'. College, Lond.

N.—Messrs. Neyroud and Son, Lond.; Mr. J. C. Needes, Lond.; Mr. F. C. Needes, Lond.; Mr. H. Needes, Lond.

O.—Messrs. Oppenheimer, Son, and Co., Lond.

P.—Mr Y. J. Pentland, Edinburgh; Parish of Fulham. Clerk of; Mr. C H. Power, Cumberland; Porcherine, Ltd, Lond.; Messrs. Peacock and Hadley, Lond.; Dr. John Phillips, Lond.; Dr. M. Payne, Lond.

R.—Mr. A. L. Rozelaar, Lond.; Mr. W. Rushton, Lond.; Royal Botanic Society of London, Secretary of; Dr. C. Rundle, Lond.; Messrs. Revnell and Son, Lond; Royal Halifax Infirmary, Secretary of, Royal College of Surgeons in Ireland, Registrar of.

S.—Dr. P. B. Smith, San Remo; Messrs. Street and Co, Lond.; Messrs. Stephen, Fraser, and Air, Lond.; Dr. C. S. Storrs, Reading Messrs. Swan Sonnenschein and Co., Lond; Stockport Infirmary, Secretary of; Scholastic, Clerical, &c., Association, Lond.; Dr. B C. Stevens, Lond.; *Sotto Voce.*

T.—Mr. Atwood Thorne, Lond.; Mr. Percival Turner, Lond.; Dr. J. C. Thomson, Hong Kong; Temperance Male Nurses' Coöperation, Lond.; Sir F. Treves, Lond Towcester District Council, Clerk of.

U.—University of Edinburgh, Dean of.

V.—Van Publishing Co., New York.

W.—Dr. Hugh Walsham, Lond.; Wylers, Ltd., Coventry; Messrs. F Williams and Co., Lond.; Mr. V. Wood, Lond; Messrs. W. Wood and Co., New York; Messrs Wright, Dain, and Co, Birmingham; Weston-super-Mare Hospital, Hon. Secretary of, Dr. T. Jason Wood, Bradford; Mr. W. Wynn Westcott, Lond.; Miss B. H. Woodward, Malvern Link: West Ham Hospital Stratford, Secretary of.

Y.—Messrs. C. Yarrow and Co., Lond.

Letters, each with enclosure, are also acknowledged from—

A.—Messrs. Ashford, Brooke, and Co., Birmingham; A. J. R. O.; A. W. S., A. V. W.; A. B. L.; Apollinaris Co, Lond.

B.—Mr. E. Blatchley, Lond.; Messrs J. Bell and Co., Lond.; Mr. H. J. T. Blanch, Swindon; Dr. S. Barnes, Lond., Borough of Bury, Treasurer of; Messrs. Burgoyne, Burbidges, and Co., Lond, Mr. T Brantford, Lond.; Birmingham General Hospital, House Governor of, Barnwood House Hospital, Medical Superintendent of; Dr. G. F. Blandford, Lond; Mrs. L. A. Brooks, Grays, Colonel Brooke, Athlone; Messrs. Bedford and Co, Lond.; Mrs. B.; Dr. B.

C.—Dr. H. Carmichael, Lond; Mr. E. P. Court Hambledon; Messrs. Samson Clark and Co, Lond. Mr R. J. Crane, Crowle, Mr. G. Clarke, Cachar, India; Mr. W. H. Chapman, Whitehaven; Cafolin Co, Lond.; C. H.; Messrs. A. Cohen and Co, Lond., County Asylum, Prestwich, Superintendent of; C. F. G., City of Birmingham, Treasurer of; Messrs. Curry and Paxton, Lond.; Messrs. J. and A. Carter, Lond.

D.—Mr. W. Doughty, Chillington; Dorchester Asylum, Medical Superintendent of, Dr. T. S Dowse, Lond; Dr. A. S. Dick, Glasgow.

E.—Mr. E B. Edwards, Lond.; Miss A. Etheridge, Stoke Ferry; Mr. T. F. Elmes, Sundays Well; E. A B.

F.—Messrs. J. S. Fry and Sons, Bristol, Mr. W. A. Frost, Lond.; Dr. G. W. Francis, Tunstall; Messrs. J S. Forsaith and Son, Lond., F. V. B., F. F., F. F. H.

G.—Mr. H. J Glaisher, Lond.; Messrs C Griffin and Co., Lond.; Dr F. Gabne, Belize, Dr. S. A. Gill, Formby; Grove House Asylum, Church Stretton; Gloucester General Infirmary, Secretary of.

H.—Mr. A. A. Hill, Tunstall; Heigham Hall, Norwich, Miss Hargreaves, Lond.; Messrs. J. Haddon and Co, Lond.; Mr. R Harrison, Lond; H. B.; H. M. H. S, Mr. T. A. Hawkesworth, Thrapston; Mr. T. Homer, Laxey.

I.—Ingham Infirmary, South Shields, Secretary of.

J.—J. T. B.; J. A. O B.; J. J. S.; J. M; J. H. R; J. McC.; J. H. C.

K.—Mr. R A. Keys, Bagillt, Kent County Ophthalmic Hospital, Maidstone, Secretary of.

L.—Mr. A. E. Leitch, Conway; Captain G. Lamb, I.M.S, Parel, India; Mr. C. Lupton, Leeds, London College of Pharmacy.

M.—Mr. H. Moxon, West Brighton, Messrs. J. Maythorn and Son, Biggleswade, Dr. H. Macnaughton-Jones, Lond; Miss Macpherson, Lond.; M. J. O R.; Manchester Medical Agency; Dr. A. H. M. Macmorran, Lond.; Mr. E. H. Monks, Wigan

N.—Northern Medical Association, Glasgow; National Dental Hospital, Lond., Secretary of.

O.—Opus, Saltburn by the Sea.

P.—Dr. W. Park, Limpley Stoke; Mr. J. Palmer, Snodland, Mr. T. Pierse, Wexford Peptenzyme Co, Lond. Practice, Blackburn; Mr. A. Parkes, Longton; Mr. C. J. Palmer, Mansfeld; Mr. G. N. Parker, Pontesbury; Parish of St. Mary, Islington, Clerk of.

R.—Dr. T. H. Redwood, Rhymney; Messrs. Runton and Barry, Hull; Mr. J. B. Richardson, Darlaston; R. D. J.

S.—Mr. W. P. Smart, Tunstall; Mr. H. W. Scriven, Lond.; Stretford-road (439), Manchester; Surgeon, Sheffield; Mr C H. Sers, Lond.; Dr. Schlesser, Nice; Messrs. Savory and Moore, Lond.; Dr. F. Shufflebotham, Newcastle-under-Lyne, South Australian Government Bonded Depôt, Lond.; Mr. R. Sim, Wroxall; Mr. E. S. Sanderson, Tuxford; Stretton House, Church Stretton; Mr. H. M. Speechly, Parkgate; Sheffield Children's Hospital, Secretary of; Statim, Neath, St. John's Hospital for Diseases of the Skin, Lond., Secretary of; Mr. A. Smyth, Tonbridge, S. L; Dr. T. W. Smith, Bath; Dr M. Serrati, Venice; Mr. H. J. Satchwell, Lond., Messrs. Sampson Low, Marston, and Co, Lond.

T.—Mr L. A. Tallerman, Lond.; Dr. G. Trad, Beirut, Syria; Mr. H. Tylecote, Kirby Muxloe; Mr. J. J. Taylor, Newcastleton; Mr. F. V. J. Travers, Timoleague; T. F. D.

U.—Union Assurance Society, Lond.

W.—Mr. J. Williams, Bradford; Mr. W. H. Williams, Sherborne; Dr. W.; W. S. M. S., W. J. S L; Dr. W. H. Warwick, Darlington; W. D.; W S S.; W. F W.; Mr. J. H. Wallis, Babbacombe; Messrs. H. Wilson and Son, Lond.; W. B. R., W. G N.

EVERY FRIDAY.

THE LANCET.

PRICE SEVENPENCE.

SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.	
One Year	£1 12 6
Six Months	0 16 3
Three Months	0 8 2

TO THE COLONIES AND ABROAD.	
One Year	£1 14 8
Six Months...	0 17 4
Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

ADVERTISING.

Books and Publications ...	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 6
	Every additional Line	0 0 6

Quarter Page, £1 10s. Half a Page, £2 15s An Entire Page, £5 5s.

Terms for Position Pages and Serial Insertions on application.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France.—J. ASTIE, 8, Rue Traversière, Asnières, Paris.

The Erasmus Wilson Lectures

ON

THE PATHOLOGY AND DISEASES OF THE THYROID GLAND.

Delivered at the Royal College of Surgeons of England on Feb. 18th, 20th, and 22nd, 1901,

BY WALTER EDMUNDS, F.R.C.S. ENG.,

SURGEON TO THE TOTTENHAM HOSPITAL; SURGEON TO OUT-PATIENTS AT THE EVELINA HOSPITAL FOR SICK CHILDREN.

LECTURE II.[1]

Delivered on Feb 20th.

MR. PRESIDENT AND GENTLEMEN,—Having in the previous lecture considered the effects produced by total excision of both the thyroid gland proper and the parathyroid glands, and also by the removal of the thyroid gland only, we have now to determine the results of removing the parathyroid glands only.

It 1896 it was pointed out by Vassale and Generali that if in dogs all the parathyroid glands were removed and the thyroid gland proper left the dogs would die just as they do, and with the same symptoms, as when the thyroid gland and the parathyroid gland are completely removed Their experiments have now been repeated several times and in the main they have been confirmed. My own results were as follows In 16 dogs it was intended to remove all four parathyroid glands, leaving the thyroid lobes intact; but it is not easy to find all the parathyroid glands in an operation, and it was subsequently seen that in seven of the dogs one (and in one case two) of the parathyroid glands had been left; in only nine then had all the parathyroid glands been removed, and it cannot be absolutely affirmed that in these no parathyroid had been left, because the only way of making sure is to cut and to examine consecutive sections of both thyroid lobes, and this was not done. However, in the nine dogs no parathyroid glands were subsequently found and it is probable that none were left. Of the nine dogs four died; one in two days, one in four days, one in seven days, and one in 28 days. The other five survived, but three of them had temporary symptoms; thus, of the nine dogs which underwent complete parathyroidectomy four died, three recovered after symptoms, and two escaped all ill consequences. In my hands, therefore, the results of parathyroidectomy were not so bad as were those of total excision, but, on the other hand, in a recent paper Vassale and Generali state that they have found them even worse—that is to say, that while both operations are fatal the dogs die more quickly after removal of the parathyroid glands only than after total excision, and further, that if after parathyroidectomy the thyroid lobes are removed a day or two later the dogs will live longer than they would have done had the lobes been left.

The changes which occur in the thyroid lobes which are left in these operations are very interesting—the colloid diminishes or completely disappears, and its place is taken by a watery secretion; the vesicles instead of remaining round become branched and the secreting cells become columnar or multiplying fill the cavity of the vesicles with round cells. These changes are identical with those described as "compensatory hypertrophy," but the thyroid lobes do not appear to enlarge, but on the contrary sometimes they seem to become smaller; this, if confirmed, will coincide with the view that the parathyroid glands manufacture the secretion and the thyroid glands store it; when the parathyroid glands had been removed there would be no secretion for the thyroid lobes to store. The five dogs which, as just stated, survived excision of the parathyroids were subjected to the further operation of removal of one of the remaining thyroid lobes; two died after this and three survived; in these three the remaining thyroid lobe was excised; one died, and two, after temporary symptoms, recovered; these two lived therefore without either thyroid gland or parathyroid gland—in a state of complete athyroidea, in fact. The symptoms, and in the fatal cases the cause of death, were the usual symptoms of athyroidea—namely, tremors, unstable gait passing into paralysis of the hind limbs, emaciation, and great weakness; in two of the dogs marked narrowing of the palpebral fissures was noted. The thyroid lobes obtained by these later operations were sometimes normal and sometimes altered as described. In seven of the dogs some of the parathyroid glands had been removed, but it was subsequently found that in them one (and in one case two) of the parathyroid glands had been left. Only one of these dogs died, and that only after 72 days; thus in nine dogs with complete parathyroidectomy four died in 28 days; in seven dogs with incomplete parathyroidectomy only one died, and that only after 72 days; it died with paralytic symptoms. Although the other six dogs did not die, four of them had symptoms from which they recovered; these six dogs were submitted to further operations; in one both thyroid lobes were removed simultaneously; it died in consequence; in the other five one thyroid lobe was removed; three died in consequence; two survived, but one of them had symptoms; from each of these two survivors the remaining lobe was removed; they both died in consequence. Changes were noticed in the eyes of some of these dogs; in two of the dogs after an incomplete excision of the parathyroid glands widening of the eyes was seen and after a later operation the eyes became retracted and the palpebral fissures narrowed. In one dog two parathyroid glands were removed and two were left, one on each side; this operation produced no change in the eyes; the removal of one parathyroid gland with one lobe was followed by widening of the eyes, and the subsequent removal of the other lobe, also with a parathyroid gland, was followed by narrowing of the eyes and death from athyroidea It would seem that removal of the parathyroid glands, if not fatal, causes (if any change) exophthalmos, but in fatal cases, whether produced by removal of the parathyroid glands or by total thyroidectomy, the eyes often become very narrow.

We have now completed our survey of the effects of the three main excision operations, but on account of the importance of exophthalmos in Graves's disease it will be well to review the effects of these operations on the eyes.

To commence with dogs The effects on the eyes of dogs of complete excision of both the thyroid gland and the parathyroid glands is to make the eyes narrow; the dogs die from the operation and with narrow eyes. The next operation is removal of one lobe of the thyroid gland together with its two parathyroid glands, leaving the opposite lobe with its two parathyroid glands; this produces no effect on the health of the dogs, nor, as far as I have noticed, on their eyes. The same result, as a rule, follows removal of the thyroid gland proper, leaving one or more parathyroid glands. Occasionally after leaving only one parathyroid gland symptoms come on and then the eyes may become narrow. Removal of parathyroid glands, leaving one parathyroid gland and the whole or part of the thyroid gland proper, may be followed by the eyes becoming wide, and after a further operation they may become narrow. Finally, total excision of all of the parathyroid glands often causes death, and in one case at least there was narrowing of the eyes.

In rabbits two of the parathyroid glands lie distinct from the thyroid gland as a rule, and it is a simple operation to remove these and to leave the thyroid gland proper with presumably two parathyroids, or to perform the reverse operation. I made a series of experiments to test the effects of these operations on the eyes. Of six rabbits in which the thyroid gland was removed three have since died, and they died with narrow eyes; in one of the survivors the eyes are now normal, having once been narrower than before operation; in one they are now normal, having once been wider; and in the third they are becoming normal, having been wider. On the other hand, a much stronger tendency to the eyes becoming wide was seen in the rabbits from which two parathyroid glands were removed; out of five experiments in one no change occurred, but in all the other four the eyes became wide for a time, but have since become normal.

In monkeys the only operation performed was total excision of the thyroid gland and the parathyroid glands; as a rule (and always at the latter stage of the illness when the monkey is dying from athyroidea) the eyes are narrower; but occasionally after the operation the eyes become wider.

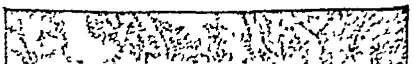
The conclusion of the matter would seem to be that excision of the thyroid gland and the parathyroid glands produces enophthalmos with narrowing of the palpebral fissures; total parathyroidectomy would seem to produce the same, and so also (if it produces symptoms) does excision of the thyroid gland proper, but certain operations not fatal at the time, and especially those in which the parathyroids are interfered with, may be followed by exophthalmos with widening of the palpebral fissures. The same operation may be followed by first widening and later narrowing, but I have never seen the reverse—at least, not as a permanency. It will be noticed that these eye changes tend to support the suspicion that the parathyroid glands are involved in the pathology of Graves's disease.

---

[1] Lecture I. was published in THE LANCET of May 11th, 1901, p. 1317.

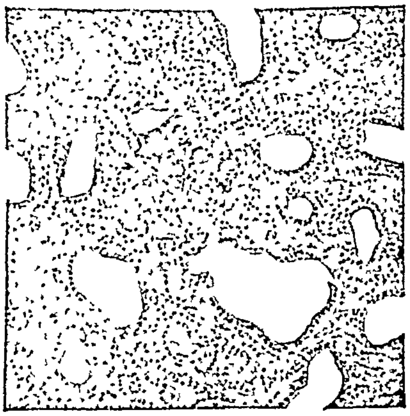
The preceding experiments apply to the action of the thyroid gland, or of portions of it, when the nervous supply is intact; but the well-known effect on the salivary glands of interference with their innervation leads to the question whether the internal secretion of the thyroid gland is under the control of the nervous system. Various experiments have been made to test this: Schiff stripped the sympathetic fibres accompanying the blood-vessels going to one lobe of the thyroid gland from them, leaving the opposite lobe intact; on subsequently comparing the lobes of the two sides he could find no difference between them; the interference with the sympathetic had produced no result. Horsley tried the effect of dividing the recurrent laryngeal nerve to one lobe; that, too, produced no difference on the two sides. I myself divided the vagus on one side; as the division was below the origin of the superior laryngeal nerve the operation was practically the same as Horsley's division of the recurrent laryngeal nerve and the result was the same—a negative one. Katzenstein tried the effect of electrically stimulating one lobe of the thyroid gland; that, too, produced no alteration in the microscopical appearances of the two sides. However, at last a positive result was obtained. Exner found in two experiments on cats that the division of the superior and inferior laryngeal nerves supplying one lobe of the thyroid gland and the excision of the opposite lobe caused severe tetany, showing that the function of the "paralysed" lobe was greatly interfered with. I have repeated Exner's experiment (with an unimportant modification) and have obtained similar results. The experiments were made on dogs and consisted in excising a length of the superior laryngeal nerve on one side and also on that side a length of the vago-sympathetic at the level of the thyroid, and finally on the opposite side excising the thyroid lobe together with its parathyroid gland. The experiment was performed nine times; the result was that three of the dogs died, one in 18 hours, one in two days, and one in three days. Of the six survivors four had athyroidic symptoms and two had no symptoms; thus out of nine dogs operated on seven had symptoms and three of them died; it is therefore to be inferred that the secretion of the thyroid gland is under the control of the central nervous system; that this is so is further supported by the microscopical examination of the thyroid lobes which had had their innervation interfered with. Out of the nine experiments two dogs survived without symptoms; in one the first lobe removed did not appear normal under the microscope and it will therefore be safer to reject this experiment altogether; in one the operated lobe appeared normal; as this dog had no symptoms it is possible that there was something wrong in the experiment—any way, the absence of symptoms and of alteration in the lobe go well together. With respect to the remaining dogs which had symptoms, from two there are no specimens, from one because the dog is still alive; there remained then five specimens from five dogs, all of which had symptoms. The results of microscopical examination were: (1) from all five of these lobes the colloid had completely disappeared; and (2) in four of them the secreting cells had multiplied into the cavity of the vesicles; this is different from the usual appearances in compensating hypertrophy, in which, as a rule, the secreting cells become columnar but do not invade the cavity of the vesicle—it is rather the appearance seen in any remaining portion of a lobe when compensation has failed and death is occurring from athyroidea. (Fig. 7.) With respect to the fifth lobe, the dog having survived the experiment the lobe was excised 49 days later. It was greatly enlarged and weighed 3·5 grammes, which is three or four times the normal weight. All colloid had disappeared, but the secreting cells and their progeny were not in this case filling the cavities of the vesicles which contained instead a watery secretion. The great size of the lobe was due to the growth of young thyroid tissue between the vesicles. (Fig. 8.) It is clear then that the interference with the nerve-supply produces very serious symptoms, and when we come to consider the pathology of thyroid disease we must be prepared to admit the possibility of defective innervation being the cause of serious symptoms and pathological changes. With respect to the sympathetic nerve-supply, Schiff, as stated, came to the conclusion that it produced no effect. In the submaxillary gland the sympathetic carries but few secreting fibres, the main supply being through the chorda tympani. Such, then, are the results of deprivation of thyroid secretion by operations for the removal of the thyroid system in whole or in part, or by interference with its nerve-supply.

FIG. 7.



From a dog the parathyroid glands were removed; the dog died in seven days in consequence. The drawing shows the changes which occurred in the thyroid lobes (which were left).

FIG. 8.



A microscopical section of the thyroid lobe of the dog referred to in the text.

We now proceed to consider the results arising from an excess of thyroid gland in the system. This can theoretically be effected in two ways—either by grafting additional thyroid gland into the body or by the administration of thyroid gland for thyroid preparations. Grafting, as already stated, seems unsatisfactory, and it has not yet been carried out so as to justify any physiological conclusions as to its effects; on the other hand, the results of thyroid-gland feeding have been carefully investigated both in normal and in diseased subjects. In a healthy man Dr. G. F. Johnston found by experiments on himself that after taking from four to nine thyroid-gland tablets a day there was acceleration of the pulse from 70 to 120, accompanied by palpitation, flushing, tremors, sensation of heat, and perspirations. Similarly, M. Gagnevin, a medical student, took for eight days full doses of raw thyroid gland; this produced palpitation, a rapid pulse, tremors, perspiration, flushings. and (as was noticed by his friends) exophthalmos. Also Dr. Béclère has recorded a case of myxœdema in which very large doses of thyroid-gland preparation were taken. The disease was relieved, but temporary symptoms of thyroid intoxication were produced; they were quickened pulse, quickened respiration, rise of temperature, sensations of heat, increased perspiration, mental agitation, tremors, incomplete paraplegia, increased secretion of urine, temporary albuminaria, and a certain degree of exophthalmos. Similarly, Easterbrook found in the human subject that the administration of thyroid gland produced: (1) a loss of weight, about seven pounds a week; (2) some pyrexia; (3) some increase of perspiration; (4) diminution of red blood corpuscles; (5) headache; (6) tremors; (7) an increase of pulse-rate by about 40 a minute; (8) an increase of rate of respiration by about six a minute; (9) a diminution of appetite; (10) an increase of menstruation; and (11) an increased amount of urine, often of albumin, but never of sugar. He concludes that thyroid substance is a profound katabolic stimulant.

In healthy animals thyroid-gland administration does not produce much effect unless carried out in very large doses. I gave a dog two thyroid glands of the sheep a day without any obvious effect, also to another dog the thyroid glands of 16 sheep without any result, and others have made the same experiment also with negative results. Chasevant fed a dog with the thyroid gland of the ox. He gave to the dog in 57 days 1361 grammes of thyroid gland; the only result was loss of flesh—the weight fell from six and a half to eight kilogrammes; there were no other symptoms, no rise of temperature, no loss of good temper, and no morbid symptoms whatever. In 1895 Ballet and Enriquet experimented on dogs in three ways: by thyroid-gland grafts in two cases, by thyroid-gland feeding in six cases, and by thyroid-gland injections in 12 cases; in three out of the six dogs fed with thyroid gland distinctive symptoms were obtained; these consisted in rise of temperature, rapid pulse, tremors, conjunctivitis, emaciation, and in one animal quite distinct exophthalmos. In two of the animals in which the injections were used there was observed to be a slight prominence of the eyes not amounting to exophthalmos

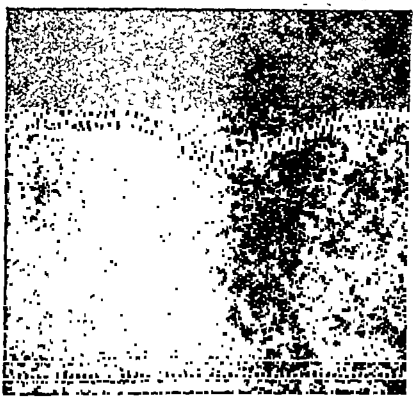
In a rabbit to which Cunningham administered by the mouth 0·1 gramme of thyroid extract exophthalmos was caused. He gives a photograph of the rabbit which shows the exophthalmos very clearly.

In monkeys I have found the administration of large doses of thyroid extract produce marked results. The preparation chiefly used was thyro-colloid which is made from the thyroid glands of sheep by a process devised by Dr. R. Hutchison. In principle it consists in dissolving out the colloid with a dilute alkaline solution and precipitating with acetic acid. Large doses of this preparation were administered to six monkeys, the daily dose corresponding to from one-half to three whole thyroid glands of a sheep a day. Well-marked symptoms were produced—namely, proptosis, dilatation of pupils, widening of palpebral fissures, erection of hairs on the head, the hair falling out in patches, paralysis of one or more limbs, emaciation and muscular weakness, and finally death from asthenia. The average life of the monkeys after the commencement of this treatment was 76 days.

Of the above effects those produced on the eyes are no doubt caused mainly by action through the cervical sympathetic. Division of the cervical sympathetic causes (1) recession of the eyeball, (2) contraction of the pupil, (3) narrowing of the palpebral fissure, (4) œdema and flushing of the skin round the eye, (5) swelling of the caruncle, (6) projection of the pinna from the side of the head, (7) puckering of the skin of the muzzle, and (8) flattening of certain hairs on the forehead which cannot then be elevated by emotions which affect the corresponding hairs on the opposite side. On the other hand, stimulation of the cervical sympathetic produces: (1) proptosis of the eyeball; (2) well-marked dilatation of the pupil; (3) widening of the palpebral fissure; (4) lying back of the pinna; and (5) erection of certain hairs on the head.

In order to test how far the effects upon the eye of thyroid-gland feeding were produced through the sympathetic in two monkeys I excised a length of the cervical sympathetic on one side. After allowing a few days for recovery from the effects of the operation thyroid-gland feeding in large doses was commenced; 12 days later it was found on comparing the monkeys with sketches made before operation that on the unoperated side the palpebral fissure had become very wide, the eyeball very prominent, and the pupil much dilated. On the side on which the sympathetic had been divided the fissure was narrow, the eyeball not prominent, and the pupil not dilated. In one of the monkeys 12 days later the difference in the eyes was much less marked, although the feeding had been continued; this may possibly be due to some repair having occurred in the sympathetic. This is said to happen even when, as in this case, a length of the nerve has been excised.

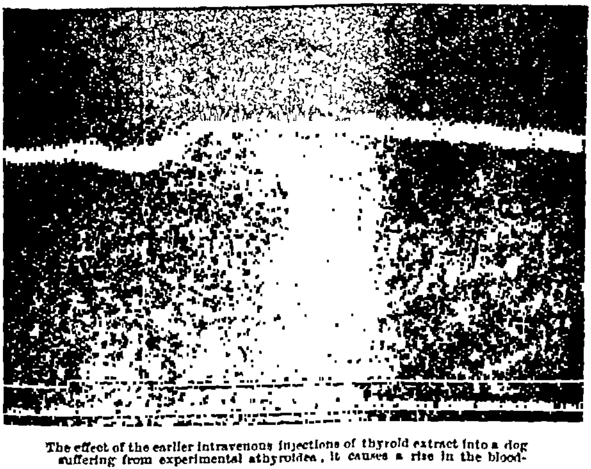
FIG. 9.



The effect of intravenous injection of thyroid extract into the normal dog. The injection was made during the time shown upon the upper line; it caused a fall in blood-pressure. (Read the tracings from left to right.)

There are comparatively few observations on the action of parathyroid gland. Easterbrook in his investigation found that it produced no affects, thus markedly contrasting with the thyroid gland. Hutchison tried parathyroid gland in a case of myxœdema, but without producing any improvement; but Hutchison states that parathyroid gland undoubtedly produces beneficial results in animals that have been deprived of their parathyroid glands.

FIG. 10.

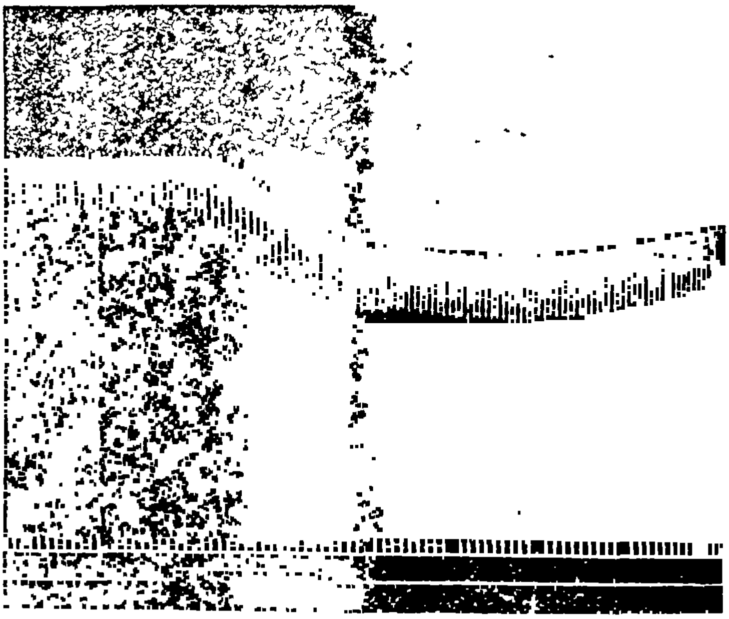


The effect of the earlier intravenous injections of thyroid extract into a dog suffering from experimental athyroidea, it causes a rise in the blood-pressure.

The effect of the intravenous injection of thyroid extract into animals has been investigated by Oliver and Schäfer; they found a marked fall in the blood-pressure produced, but the force of the heart's contraction and the pulse-rate were not materially altered.

The effects of the injection of thyroid extracts into thyroidless animals have been tried by von Cyon who has written a series of very interesting papers on the relations of the thyroid gland and the heart, and (with the kind assistance of Dr. T. G. Brodie) by myself. The injection of thyro-colloid into thyroidless dogs causes a rise of blood-pressure—at least, that is the effect of the earlier injections; later injections produce, as in the normal, a fall; these phenomena may be explained by assuming that thyro-colloid stimulates both the depressor and accelerator mechanisms, that while the former preponderate in the normal, athyroidea so alters their relative response that in it the accelerators preponderate at first, but that the earlier injections of thyro-colloid so revives the depressors and vagi that the later injections produce the normal effect. Von Cyon states that in the goitrous animals of Berne and in athyroidea the excitability of the vagi and depressors is diminished or abolished and that of the sympathetics (vaso-constrictor and accelerator) is increased. (Fig. 9, Fig. 10, and Fig. 11.)

FIG. 11.



The effect of the later injections of thyroid extract into a thyroidless dog; it causes, as in the normal, a fall of blood-pressure.

A Clinical Lecture

ON

CASES ILLUSTRATING THE SURGERY OF THE THYROID GLAND.

Delivered at St. Thomas's Hospital on Oct. 17th, 1900,

BY HENRY BETHAM ROBINSON, M.S. LOND., F.R.C.S. ENG.,

ASSISTANT SURGEON, SURGEON IN CHARGE OF THE THROAT DEPARTMENT, AND LECTURER ON ANATOMY, AT ST. THOMAS'S HOSPITAL; SURGEON TO THE EAST LONDON HOSPITAL FOR CHILDREN.

[THE lecturer first reviewed certain points in the anatomy and physiology of the gland, referring particularly to the development of the pyramidal lobe and to the effects produced by the absorption of the thyroid secretion. He then said:]

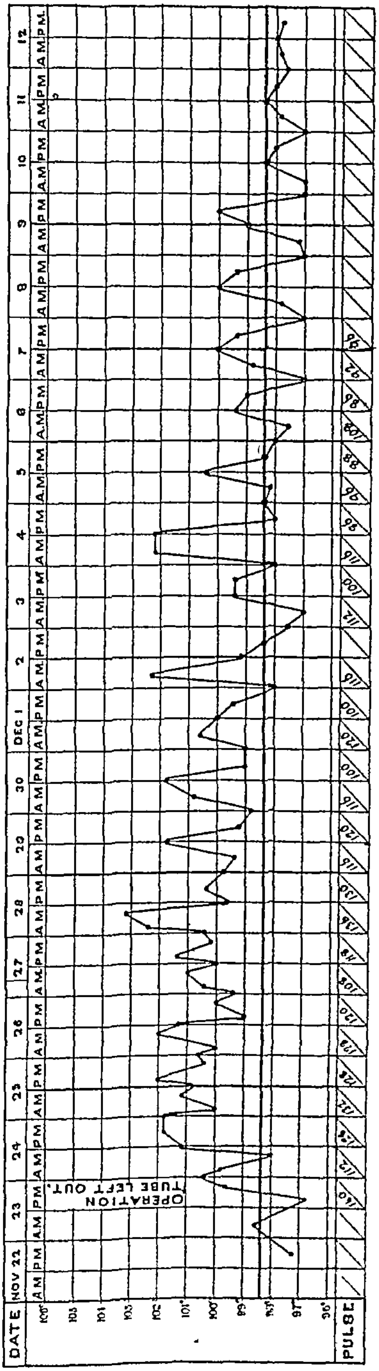
The first group which I will discuss consists of cases of parenchymatous goitres where there was general enlargement of the gland, almost symmetrical, without any pulsation or other signs of Graves's disease. Their consistency is generally soft, but the density of the inclosing fascia often produces a certain amount of firmness. The enlargements may take place slowly, but in some cases they may develop rapidly, producing a characteristic and distressing train of symptoms. This rapid increase seems to occur particularly in young subjects about the onset of puberty and no doubt it bears some direct relation to the awakening activity of the sexual organs.

CASE 1. *Parenchymatous goitre; reduction under thyroid extract.*—The patient, a male, aged 17 years, was admitted to hospital on July 31st, 1896. One of his sisters had had a unilateral swelling for 12 years. 12 months previously he had had influenza and just afterwards his neck was noticed to be enlarging on both sides. The swelling increased gradually with at times, he thought, a slight decrease. There was no pain but it seemed to throb. His breathing was noisy when at work and sometimes he had a feeling of suffocation. About four months before he had had a bad attack of dyspnœa at night but this had never been repeated: he slept well usually. There was discomfort on swallowing. Both lobes and the isthmus formed a soft, symmetrical enlargement without any pulsation. His eyes seemed a little prominent, but this appeared to be only accidental, as there were no other signs suggesting Graves's disease. His neck, measured through the isthmus, was 15¼ inches on August 3rd and thyroid extract was ordered, as he had no urgent symptoms. This produced remarkable benefit, as on the 6th the measurement was 14¾ inches on the 10th 14½ inches, on the 14th 14¼ inches, and on the 18th 14 inches. Accordingly he was discharged to go on with the treatment outside.

CASE 2. *Parenchymatous goitre; enlarged pyramidal lobe; operation; thyroidism; recovery.*—A youth, aged 16 years, a patient of Dr. G. H. Wickham of Fleet, Hampshire, came under my care on June 8th, 1897. Between four and five months the swelling of the neck had been noticed. It had grown gradually at first, but during the last six weeks its growth had been rapid, so that marked dyspnœa and some difficulty in expectorating had resulted. He was rather a heavy-looking boy who when sitting up did not appear to have any difficulty in breathing except on much talking, but in the reclining position his respiration was noisy with marked stridor. He was very restless at night and he constantly started up with a feeling of suffocation. The gland was considerably enlarged, the lateral lobes symmetrically; between these was a central mass inclining rather to the left of the mid-line, reaching almost to the hyoid bone. The whole gland was somewhat elastic, uniform in consistency, and without any prominent or fluctuating areas. There appeared to be no extension behind the sternum, but there was undoubted tracheal stridor. During the day and night of the 9th the patient's breathing was much embarrassed, and in the early morning of the 10th his condition seemed to be so grave that it was determined to relieve the pressure on the trachea. A vertical incision was made down to the gland and the isthmus with an enlarged pyramidal lobe was found completely to cover the trachea. He now became asphyxiated, and as an immediate opening into the trachea was imperative, the gland was cut through (its thickness being quite three-quarters of an inch) down to the trachea, which was opened and a No. 12 catheter was introduced. With ether and strychnine he soon revived. The operation was then proceeded with. The isthmus was removed without much hæmorrhage and without being ligatured laterally. The trachea was found to be much compressed laterally and softened from absorption of the cartilaginous rings. The wound was then left open at the bottom and was lightly packed with gauze, and an ordinary tracheotomy tube was left in. The next day, as his breathing was not very satisfactory, a König's vertebrated tube was inserted with much subsequent benefit, and it was finally removed on the eighteenth day. For a fortnight after the operation the patient had a very erratic temperature without any local cause which, associated with some feeling of oppression, slow healing of the wound, and somewhat marked watery discharge, pointed to thyroidism from the absorbed secretion. Locally the lateral lobes dwindled rapidly after the operation and they became much softer. He left the hospital at the end of the month. His subsequent progress has been most satisfactory; he has never had any more enlargement and he can work hard without dyspnœa (October, 1900)

CASE 3. *Large parenchymatous goitre with pyramidal lobe; section of the isthmus and removal of the lobe; thyroidism; recovery.*—The patient, a female, aged 15 years, came under my care in St. Thomas's Hospital on Nov. 22nd, 1899 Beyond that of the grandmother having a goitre there was no other history. The girl had always been healthy until three years before, when a lump in the front of the neck was first noticed; it was small and was confined to the middle line During the fortnight before admission the swelling had been getting rapidly larger, especially at the sides of the neck. When lying still there was no dyspnœa, but on any exertion it was very marked and she felt nearly suffocated; in fact, she was hurried to the hospital after a very severe attack in which it was thought she would succumb. On admission the thyroid gland was found to be enormously enlarged and towards the lower part could be felt a cleft in the middle line between the lateral lobes corresponding to the isthmus. Between what were made out to be lateral lobes above was a central swelling, a little more to the left side, which reached up to the hyoid bone On relaxing the neck the whole mass was rather soft, without any pulsation There was some tracheal stridor and any lateral movement of the head brought on a severe attack of dyspnœa There was no exophthalmos, but the pulse was rather irregular and about 100. As the patient's condition did not permit of delay to try the administration of drugs, she was brought to the theatre on the afternoon of the 23rd Chloroform was administered and a vertical incision was made in the middle line through the skin and fascia, several very engorged veins having to be tied, and the growth was exposed. At this stage she became cyanosed and stopped breathing. As artificial respiration did not relieve this condition an opening was made into the trachea by cutting down through the right side of the central mass—this opening was through the crico tracheal interval and the first ring—and a tube was introduced. The patient's breathing then went on satisfactorily and the operation was proceeded with. The isthmus which consisted of a fair thickness of thyroid tissue was cut through down to the trachea and portions of it were removed but not ligatured off The pyramidal mass connected with the isthmus above was able to be dissected away and was removed *in toto* After all bleeding, which was not severe, had been stopped the upper part of the wound was stitched up with horsehair, but the lower part was left open and was loosely packed with cyanide gauze. The trachea was found to be much flattened laterally. As before leaving the table the short tracheotomy tube did not seem satisfactory it was taken out and a König's tube was put in its place. After reaching the ward the patient again became cyanosed and began to struggle violently; a quarter of a grain of morphia administered hypodermically brought relief. At about 11 P.M. she again had dyspnœa and the tube was removed. As her breathing seemed to be much easier without it it was kept out and the wound was covered up with sterilised gauze As shown in the annexed chart there was marked rise of temperature with rapid pulse lasting for nearly a fortnight. This was accompanied by restlessness, at times a feeling of suffocation and some cough, but without any physical signs in the chest. For some days there was watery discharge from the wound which was never offensive On Dec 2nd the tracheal wound was closed and the remainder granulated up slowly. From this time onwards she had no drawbacks, but the wound was not healed until Jan. 10th, 1900 There was no discomfort on moving the head. The lateral lobes diminished in size very rapidly after the operation. The growth on examination proved to be a soft parenchymatous goitre

The last two cases just detailed have several important features in common which are worthy of note There had been in adolescence the somewhat rapid enlargement of the gland, attended with breathlessness, particularly on exertion. In both the isthmus of the gland was very well developed, rendering the position of the trachea deeply placed, and this was associated with the presence of the pyramidal lobe



Temperature and pulse record of Case 3.

The probable thickness of the gland over the trachea should always be anticipated and, knowing how liable such patients are to failure of breathing during the operation, the surgeon should never embark on such a procedure without having at hand a long catheter and a König's flexible tube. The tissue forming the isthmus was freely divided in both cases and in the girl's case the pyramidal lobe was removed in addition. Before section the isthmus was not ligatured laterally. The trachea on exposure was in each case compressed at the sides and its walls were thinned; in spite of this there were no unpleasant sensations afterwards on free movement of the neck. The after-results of the operation were eminently satisfactory from the marked relief of pressure and from the dwindling of the enlarged lateral lobes, but as the immediate sequel certain well-defined symptoms were present. There was an extremely irregular high temperature for some days afterwards, with a feeling of suffocation and restlessness, and a rapid irregular pulse, but without any physical signs. This combination of symptoms has been recorded before in cases described by Mr. Victor Horsley and Dr. A. J. Rodocanachi and by Mr. F. T. Paul of Liverpool. They are, in fact, due to the absorption of the secretion from the cut thyroid gland by its vessels and lymphatics and the symptoms resulting are such as would occur from an overdose of the thyroid extract. In some cases death has followed without any lesion being found at the necropsy, and I can picture such a case some years ago in which, before the correct explanation was forthcoming, death was attributed to iodoform poisoning. To prevent such absorption the risk of tension should not be run from suturing up too much. It is better to leave the bottom of the wound open and to pack lightly with gauze, removing the same from time to time when soaked with the wound exudation. If symptoms should so indicate the wound in addition may be irrigated. It should also be noted that although the wound may be quite clean healing is very slow. On the occurrence of restlessness, breathlessness, &c., good effects have been obtained by the administration of morphine, and arsenic may be tried which has been found of use when an overdose of the extract has been administered by the mouth.

The second group of cases which I will refer to are the thyroid gland adenomata, encapsuled tumours embedded in the gland substance as elsewhere. Usually they occur singly, but sometimes they may be multiple in a lateral lobe; more rarely both lobes may contain these encapsuled masses, and then some care must be taken in establishing the diagnosis between such an occurrence and a general enlargement of the gland itself. Upon the following points we may rely: the improbability of symmetry and, if there is marked difference in size, the possibility of diversion of the trachea from its normal line—instead of the outline of the gland being preserved, only on a larger scale, there are irregularity of the surface and some convex prominence usually forwards. This irregularity may, however, be somewhat masked if there is an associated enlargement of the parenchyma, but the latter complication may be reduced and the diagnosis strengthened by the administration for a time of thyroid extract. A unilateral enlargement is almost without exception due to an adenoma, especially if malignant disease can be excluded. There is usually a localised convexity in some part of the anterior surface of the gland, and if the enlargement is marked the trachea will be displaced to the opposite side. The development of these tumours is, as a rule, slow, so that they are well borne; pressure may, however, occur on the surrounding structures and corresponding symptoms may be produced.

CASE 4. *Cystic adenoma of the right lobe; removal.*—The patient, a female, aged 38 years, was admitted into St. Thomas's Hospital on August 6th, 1896. She first noticed the lump on the right side of the neck four months before when it was of the size of a small egg, but since that time it had reached the size and shape of an orange. No inconvenience was produced. The tumour over its greatest prominence was somewhat elastic. An incision was made down to the gland along the inner border of the sterno-mastoid. After incising the thin capsule of gland tissue the greyish wall of a cystic tumour was exposed and, after evacuating some greenish-brown fluid, its walls were easily dissected out from the surrounding gland substance which was left, especially at the upper part. The gland substance then came together easily and the wound was sutured up, a small gauze drain being left at the bottom of the wound which was removed at the end of 36 hours. The patient made an uneventful recovery. The adenoma had a well-marked fibrous capsule with one main cyst anteriorly into which projected soft glandular processes and on the deep aspect especially of this cyst was somewhat soft and rather grey glandular tissue in which were other small cysts.

CASE 5. *Adenoma of the right lobe; enucleation.*—The patient was a female, aged 17 years, who was admitted into the hospital in June, 1899. In the right lobe was a small convex nodule of about the size of a walnut, prominent just in front of the sterno-mastoid and about the middle of the gland which had been noticed for one year At the operation, after incising through some normal thyroid tissue a greyish-white tumour was exposed which was easily enucleated from the lower and inner side of the lobe. On section the adenoma was almost circular and about one and one-eighth inches in diameter. Inside the thickened fibrous capsule was a soft, yellowish, translucent, gelatinous tissue, without any cysts, but with a few small blood coagula flecked through it.

CASE 6. *Cystic adenoma of the right lobe; enucleation.*—The patient, a female, aged 34 years, was admitted into the hospital in June, 1899. In the right lobe was a fairly large convex swelling reaching from the middle line to under the sterno-mastoid. On making the incision in the usual way the gland was exposed with large veins coursing over its surface. Cutting through normal-looking thyroid tissue a greyish-brown convex surface was exposed, which was the tumour, and this was easily enucleated from the outer and lower part of the gland. The tumour was of the size of a hen's egg, consisting of one fair-sized cyst which contained a dirty-brown fluid and soft, greyish, friable tissue round it.

CASE 7. *Large solid adenoma of the left lobe; great displacement of the trachea; enucleation.*—The patient, a male, aged 51 years, was admitted into the hospital under my care on April 24th, 1900. His father had died from cancer and his mother from some lung complaint. She, however, had an enlarged thyroid gland, as had also one of his sisters (who was operated upon and who died soon after) and one brother. At the age of 20 years the enlargement on the left side of the neck was first noticed, which slowly and steadily increased until about a year before admission; since then it had remained stationary. For the past 10 years there had been dyspnœa; this he attributed partially to an injury to his ribs in 1888. He first came to me at the beginning of 1897 with lead-palsy which soon improved. As his health, owing to cardiac disease, was not satisfactory enough to allow of removal of the growth, my colleague, Dr. H. W. G. Mackenzie, had him under his care for a while. During this period the patient had had thyroid extract, this accounting probably for any further increase being checked and certainly rendering the adenoma more defined. On examination there was a hard tumour in the left lateral lobe, markedly convex forwards and upwards; its surface seemed to be fairly smooth. There was no translucency and no fluctuation or pulsation. The trachea was pushed well over to the right side of the mid-line. The larynx was normal. The heart was enlarged and there was a systolic bruit originating at the mitral valve; its condition had so improved that my colleague agreed that operation might now be performed without any great risk. Therefore on May 17th an incision about five inches long was made along the anterior border of the sterno-mastoid, with a second one two inches long at right angles to the first. On exposing the thyroid gland numerous large veins coursed beneath its capsule which were taken up, divided, and tied. The gland was incised to a depth of a quarter of an inch when the tumour was exposed and enucleated from its capsule of gland tissue. The rings of the trachea on their left side were decidedly thinned. The thyroid tissue was brought together by buried fine silkworm-gut stitches and a gauze drain (which was removed in 36 hours) was left in the bottom of the wound. The tumour was almost globular, with a diameter of five inches. Its structure was very solid and firm, containing small cysts, none of which exceeded in size a small nut; in its centre were marked white fibrous patches and over the periphery calcification was seen in plates. With reference to his after-symptoms there is not anything special to report. The pulse remained steady between 70 and 80 and there were no symptoms suggesting thyroidism excepting some irregular temperature for the first week (this, however, never exceeded 101° F. except on the night of operation) without any trace of wound infection. The patient left the hospital with his wound healed on June 6th, and since that time he has wonderfully improved in health.

CASE 8. *Multiple adenomata of the left lateral lobe; marked dysphagia from pressure; enucleation of three separate tumours.*—A man, aged 48 years, was sent to me on August 23rd, 1900, by Mr. E. C. Walter of Wallingford complaining of discomfort and difficulty on swallowing. He had an enlargement of the left lobe of the thyroid gland, which was irregular and firm; the gland moved freely up and down on swallowing. There was nothing abnormal in the larynx and œsophageal tubes could be passed without difficulty. He had not lost flesh. His dysphagia thus seemed to be related to the thyroid swelling. The account given of the latter was that it had only been noticed for two months. For the relief of the dysphagia and from the possibility of early malignant disease I advised exploration. The patient entered the hospital on Sept. 10th and the operation was performed on the 15th. A four-inch incision along the anterior border of the sterno-mastoid was made. On exposing the gland the anterior prominence was well marked and it felt elastic. The gland substance for one-eighth of an inch was incised when the grey-coloured adenoma was exposed and enucleated from the front and inner side of the gland. Inside its fibrous capsule was very soft cystic glandular tissue, with one very marked cyst, the anterior prominence, which contained a brown blood-stained fluid and papillary processes from its wall. To the outer side and behind this was felt another hard nodule which was enucleated. This was a more solid adenoma, with minute cysts, of about the size of a filbert. Another hard nodule could then be made out deeply placed towards the back of the lobe pressing backwards on the œsophagus. This was cut down upon and also enucleated and it proved to be almost solid and of the size of a hazel nut. The gland substance was then brought together with fine salmon gut and a small gauze drain was inserted into the bottom and brought out at the lower angle of the skin incision. This was removed after 36 hours and the wound was completely healed by the 22nd. After the operation the patient lost his feeling of dysphagia and he left the hospital quite cured. Although the adenoma had been removed from such a deep site there was no evidence of any interference with the recurrent laryngeal nerve.

In dealing with these adenomata strict conservatism should be adopted. It is quite unnecessary to remove the whole lateral lobe, for in most cases without much difficulty separation can be effected between the thinned-out gland tissue and the tumour. Further advantages of this are obvious. There is less disturbance of the surrounding tissues, so that the operation is not nearly so formidable and the risk of damage to the recurrent laryngeal nerve with the subsequent laryngeal paralysis are practically *nil*. The normal gland tissue left behind can still go on producing its internal secretion. The difference in colour between the reddish thyroid tissue and the greyish colour of the adenoma should be noted so as to define the plane of separation between the two.

Removal with the knife is by far the most satisfactory way of dealing with these adenomata, but less severe measures have been and are advocated. Tapping with or without the injection of iodine and drainage have been used. Simple tapping is merely temporising; it will have to be repeated and the risk of hæmorrhage into the cyst is run. Injecting iodine and drainage may be attended by suppuration, bad enough if limited to the cyst cavity, but in some cases it may burrow in the connective tissue of the neck.

The structure of these adenomata varies from a soft glandular tissue to a more solid fibrous type. In both cysts are met with, single or multiple, and in the former they may occur by the breaking down of the soft tissue and hæmorrhage; rapid enlargement with discomfort would point to the latter occurrence. The more chronic the tumour the greater is the likelihood of its connective tissue basis being dense and fibrous. Marked cicatricial patches may be found like scars through the growth, and in these calcification may occur which process may be also seen in plates on the periphery of the adenoma.

ISOLATION HOSPITAL ACCOMMODATION.—At the last meeting of the Bristol City Council it was reported that the Health Committee had instructed the city engineer to prepare plans for additional buildings at Ham Green to accommodate 63 patients. This will raise the total accommodation to 200 beds which will still be less than the minimum recommended by the Local Government Board. The cost of the extension is estimated at £24,660.

A PHARYNGEAL POUCH OF LARGE SIZE REMOVED BY OPERATION.[1]

BY RICKMAN J. GODLEE, M.S. LOND.,
HOLME PROFESSOR OF CLINICAL SURGERY AT UNIVERSITY COLLEGE, LONDON;
AND
T. R. H. BUCKNALL, M.S. LOND.,
ASSISTANT SURGEON TO UNIVERSITY COLLEGE HOSPITAL.

THE patient whose case forms the subject of this paper came under Mr. Godlee's observation accidentally on May 18th, 1900. He had then a swelling which looked exactly like an enlarged gland on the left side of the neck at the level of the hyoid bone in front of the sterno-mastoid. It was, however, soft and on percussion gave a tympanitic percussion note and was clearly anchored to the top of the larynx, the movements of which it followed during deglutition. On squeezing it a squeaking sound was produced and a most uncomfortable sensation was experienced by the patient which shot up to the ear and which lasted for some days. The pressure caused an obvious diminution in the size of the tumour. It was clearly, therefore, a case of pharyngeal or possibly œsophageal pouch. He was seen once more during the next few days, and in view of the serious symptoms that usually, sooner or later, are said to supervene in these cases, he was urged to allow the pouch to be removed while it was still small, but he could not at this time make up his mind to accept this advice. He was not seen again until Dec. 31st, 1900, when he was admitted to University College Hospital, and the following history was elicited. The patient, who was 31 years old, had been in the habit of smoking to excess and had habitually taken more alcohol than was good for him. Twelve years previously he had received a blow from a fist on the left side of the neck which was painful, but which was followed by no special symptoms at the time. Two years later he began to feel something working up and down the left side of the neck on swallowing. It was not always present, but occurred from time to time, but no fresh symptoms occurred until about three years ago. During the last three years he had been liable to acute attacks, lasting usually about a fortnight, during which a lump developed at the left side of the neck and swallowing became difficult and painful, until at last he could only swallow liquids. At the end of the attacks the lump disappeared, sometimes gradually, sometimes suddenly during the night. He had had about seven such attacks and also slighter ones which he had cut short by squeezing the lump, which always caused the expectoration of a quantity of phlegm, and almost daily he had coughed up what he described as "a piece of flesh," about one inch long and curled up, which sometimes stuck in his throat and caused him to choke and vomit. A full feeling in the neck warned him some 20 minutes before the commencement of an attack. The last attack began on Dec. 21st and resulted in a much larger and more painful swelling than had ever occurred before, and the skin for the first time became red over the swelling, though the redness was evidently not inflammatory. On admission the swelling reached the middle line in front and the posterior border of the sterno-mastoid behind, overlapping and pressing back this muscle. It reached upwards to a point just above and behind the angle of the jaw, and downwards to the clavicle, the upper border of which it just overlapped. He said that it had extended still further back a few days previously. It projected fully one and a half inches from the normal surface of the neck. The tumour was very painful and tender, the skin was moveable over it, and it was freely moveable over deeper parts, except near the upper part of the larynx, to which it was fixed, and at which part it appeared to be thickened, though the rest of the swelling was evidently a very thin-walled cyst. The carotid vessels passed behind it. The percussion note all over it was tympanitic. When he held his breath and blew he could slightly inflate the tumour, which procedure produced a slight change in the percussion note. There was no enlargement of the cervical glands and no sign of pressure on nerves, though the voice was harsh and metallic. A laryngeal examination showed the parts to be normal and that the cords moved freely. The temperature was normal.

---

[1] The clinical part of this case is described by Mr. Godlee, the pathological for the most part by Mr. Bucknall. Read at the Royal Medical and Chirurgical Society on May 14th.

Operation.—The pouch was removed on Jan. 2nd, 1901, by a long incision over the most prominent part of the tumour. It was a delicate matter to dissect the thin skin from the surface of it, and whilst doing so the lump collapsed. It was not apparent that the wall had been pricked, but it is possible that this may have been the case. The anterior border of the sterno-mastoid (with the spinal accessory nerve entering it) was drawn back and the thin lower part of the cyst was then opened in order to make it easier to dissect it from the subjacent structures. The dissection was less difficult when the thicker upper part of the pouch was reached, and this was found to consist of two portions communicating by a rather small opening. At last the narrow pedicle was reached which passed through the thyro-hyoid membrane, but very careful probing failed to discover the actual communication with the pharynx. The superior laryngeal nerve was not seen. The thyro-hyoid was stretched over this deeper part of the cyst which lay altogether in front of the large vessels The tubular pedicle was then secured by catgut stitches, a fresh portion of it being divided as each stitch was passed. Finally, the stump was invaginated by four stitches passed after the manner of Lembert's sutures, and the larger wound was closed except immediately over the site of the pedicle, where a small plug of gauze was placed in case the stitches should give way. The wound, however, healed perfectly, complete asepsis being maintained; the last part of the plug was removed on Jan. 12th, and healing was complete on Jan. 19th. The temperature remained normal throughout.

A careful examination of the pouch after removal was made by Mr. Bucknall. The wall of the smaller upper portion was three millimetres thick, that of the lower larger part varied from one to six millimetres. The structure of the wall was fibrous, without any muscular elements except where some fibres of the platysma were incorporated with the outer surface. The lining was throughout glistening. That of the larger sac fell into folds like those seen in an hypertrophied bladder, but that of the smaller part was almost smooth, though showing this tendency to rugosity to a less extent Microscopically the outer part of the wall was made up of dense fibrous tissue with few nuclei. Within this was a layer of more nuclear connective tissue with numerous dilated venules, and in part showing signs of recent inflammation. On this, and resting on a definite basement membrane, lay the remains of the lining epithelium, which had in most parts desquamated and was only to be found intact in the deeper crypts. Where perfect this consisted of about from three to six layers of columnar cells with oval nuclei, the superficial layers being ciliated. The deeper layers, which alone remained over the greater part of the inner surface, were columnar or cubical; the superficial ones were long and regular, and ciliated with definite free borders united to form a plane inner surface to the sac, where they were not shed or concealed by débris. The inflammatory cells, which had in parts burst through the basement membrane, had evidently been the cause of the desquamation. Close beneath the epithelial lining lay several nodules of lymphoid tissue, and here also at one spot a group of acini were cut across, resembling in every detail of their structure a mucous salivary gland. The large cubical cells composing the lining of each acinus displayed various stages of secretive activity. A few ducts were also visible.

It is possible to obtain records of nearly 200 cases of pharyngeal pouch and fistula. They probably all arise in connexion with one or other of the visceral clefts, and the following varieties occur which depend upon the position of the obliteration of the cleft: (1) it may remain open throughout its entire length, giving rise to the complete fistula opening into the pharynx and on the side of the neck; (2) no external opening may be formed and a pharyngeal pouch with a blind extremity may remain; (3) the internal aperture may become shut off from the pharynx leaving a blind external fistula; and (4) both internal and external openings being closed a "dermoid" cyst of the neck may remain. In more than a third of all the cases the fistula was complete, and of the remainder the majority presented an external fistula, either blind or with the internal orifice so concealed that it could not be found. In several a pharyngeal pouch was observed to burst externally, giving rise to the formation of a complete fistula; and conversely the external orifice of a fistula has been known to close, giving rise to a pharyngeal pouch, or the internal orifice once patent has become occluded and a blind external fistula has remained.

These facts point among others to the unity of origin of the various conditions. The internal orifice, when present, has always been found in the pharynx, and not, as at one time was stated, in the larynx. This has been proved by dissection in three cases, by passing the probe in 12, by the laryngoscope in three, and by injection from below in 17 cases. It is usually small and, like the orifice of Stenson's duct, situated on a small papilla, but in one case it was large enough to receive the last joint of the finger. In those cases in which its anatomical position has been accurately defined it opened on the side wall of the pharynx close to the margin of the tonsil, and frequently in connexion with the fold of the palato-pharyngeus.

The external orifice, if it exists at birth, is situated at some point along the anterior border of the sterno mastoid; it is single and is sometimes guarded by a subcutaneous nodule of embryonic cartilage. The most common position is just above the sterno-clavicular articulation, but it may be found at some higher point along the anterior border of the sterno-mastoid, and it has been noted opposite the cricoid on a level with the top of the thyroid close to the great cornu of the hyoid bone and opposite the angle of the jaw. If it results from the bursting of a dermoid cyst or pharyngeal pouch, as a rule it is still generally situated at the edge of the sterno-mastoid, but the pouch may have reached some other position before it burst and several external fistulous apertures may in some cases be formed.

Where a complete fistula exists some varieties in its relation to surrounding parts have been noted, but in a general way it may be said to arise from the pharynx, near the great cornu of the hyoid bone, and to run down with the carotid vessels beneath the sterno-mastoid as far as the external orifice. Pharyngeal pouches and blind external fistulæ, as a rule, follow the same course.

The lumen of the canal is usually small and its course is tortuous, especially above, and the whole pouch or fistula may form little more than a fine cord-like band extending down the neck. But in those cases in which no external orifice exists, or in which such orifice becomes blocked or closed, there is a tendency for distension to occur, and a swelling is then formed in the side of the neck which may possess the typical features of a pharyngeal pouch—that is to say, it forms a thin-walled, resonant, globular tumour, moving with deglutition, perhaps becoming more tense on forcible expiration, and capable of reduction in size on pressure. It is very rare for food to pass into the cyst, as usually happens in cases of true œsophageal pouch; it is, however, common for mucus to be expectorated, as happened in the present case.

It is interesting to try to determine which of the visceral clefts is concerned in the development of such a pouch. But the problem is a difficult one, and the difficulty is increased by the uncertainty existing at the present time with regard to the structures that correspond to the particular clefts and arches; and it must be added that, as neither of us is a skilled embryologist, all information on these matters had to be taken at second hand.

It is generally held that in the first (or mandibular) arch the lower jaw is developed; in the second the styloid process, the stylo hyoid ligament, and the small cornu and part of the body of the hyoid bone; and in the third the great cornu of the hyoid bone. The relation of the larynx to the visceral arches has not been determined. As the neck of this pouch passed through the thyro-hyoid membrane it is clear that it could not have been connected with any cleft above the third. It remains to be seen whether, supposing it was connected with the third, it bears a right relation to vessels and nerves.

The relation of nerves to the upper clefts is held to be constant and is shortly as follows. The nerve that is associated with each cleft divides at the dorsal end and is distributed partly to the arch above (anterior) and partly to the arch below (posterior). Thus the seventh nerve is distributed partly to the first arch and partly to the second; the ninth (glosso-pharyngeal) partly to the second and partly to the third; and the tenth (vagus) partly to the third (external laryngeal) and partly to the fourth arch and to lower parts of the body. Unfortunately, the position of the external laryngeal was not ascertained at the time of the operation; the main trunk of the vagus was certainly behind the neck of the pouch. It is not possible, therefore, to say whether the external laryngeal was in front of the neck, as it ought to have been if the pouch were connected with the third or some lower cleft; it is, however, almost certain that it did occupy this position.

The relation of the carotid arteries to the clefts is not yet definitely settled, and the issue is confused by the fact that the embryo of the chick has been so much employed in the study of embryology and that the development of the carotids does not appear to be the same in birds as in mammalia. Another source of confusion arises from the fact that the vessels are displaced downwards (towards the thorax) in the course of development.

According to many good authorities, the external carotid is developed from the ventral aortic vessel and thus passes in front of the visceral arches, the internal carotid from the third arch and that part of the dorsal aortic vessel which is above (anterior to) it. If, then, this pouch were developed from the third cleft its neck ought to have passed behind the two carotids. But such was not the case. Both carotids were behind the neck and only one explanation suggests itself—that the pouch was quite small at the time when the vessels were being displaced downwards (towards the chest) and that in its subsequent growth it pushed up in front of the external carotid.

If we turn to the descriptions of other observers it is found that it is not infrequent for the neck of the pouch to pass between the external and internal carotids and that the relation of some of them to the second cleft appears to have been clearly made out. Thus König, Watson, Heuter, Rehn, Tricomi, and Gussenbauer all noted that the canal passed beneath the lower border of the digastric, and Watson and Heuter traced it between the external and internal carotid arteries to the pharynx, the seventh nerve lying above it and the ninth nerve and the stylo-hyoid ligament below it. This seems to have been the course of the canal in the very few cases that have been dissected post mortem. Some others have been traced into the same position by operation, but though a few others, like the present case, have been traced up to the thyro hyoid membrane in operation the exact position of the internal opening has not been ascertained. In Watson's case a branch of the ninth nerve innervated the walls of the pouch and in the case recorded by Berger probing of the fistula caused cough and stopping of the pulse and other symptoms of distress thought to be due to irritation of the superior laryngeal nerve. In Cavazzani's case vomiting followed the use of the probe. In most cases the walls were found to consist of fibrous tissue and striped muscular fibres have been noted by some observers. The lining epithelium was either of the stratified flattened variety or columnar and ciliated as in the present case. König noted two canals side by side, one lined with flattened and the other with columnar ciliated epithelium, and other observers have described pouches lined with flattened epithelium below and columnar and ciliated at the upper part—that is to say, the part of the pouch nearest to the pharynx.

The facts pointing to the congenital origin of pharyngeal pouches and fistulæ and to their probable connexion with the visceral clefts may be summarised as follows. 1. They are frequently hereditary. 2. They are often bilateral. 3. Though they often do not appear till early adult life they may be present as fistulæ at birth or very early in life, and it is probable that they are often overlooked, as the symptoms they give rise to are slight and may take some time to develop. 4. The peculiar course of the canal. 5. The presence of a lining of ciliated epithelium, although they are derived from a portion of the pharynx normally covered with squamous epithelium. 6. The fact that the neck of the canal or pouch often passes between the carotids in the position of the second visceral cleft. 7. The fact that striated muscle has been found in the wall of such pouches and fistulæ, and that in one case a band of striated muscle ran from the end of the pouch down the course usually pursued by complete fistulæ. 8. The fact that in several cases glands having a similar structure to the normal mucous salivary glands have been found opening into the lumen of pouches and fistulæ. This may account for the discharge noted in cases like the present One of us has met with an instance, many years ago, of a cyst, then supposed to be developed in connexion with the bursa beneath the hyoid, which was, however, lateral in position, and which it was found impossible to dissect out. The patient, who was under the care of Lord Lister, was a distinguished advocate, and he was much troubled after the operation by a mucous discharge from the fistula which occurred when he was speaking in court The fistula, after many years, closed. 9. The fact that around the lumen a considerable quantity of lymphoid tissue was noted by König in three cases and also by others, while cartilage has occasionally been met with in the walls of such fistulæ.

As this pouch was obviously of the pharyngeal variety no reference is here made to the so-called pressure pouches of the œsophagus, but it is at least possible that some of these should be placed in the same category.

Bibliography —The following references include nearly all the recorded cases The writings giving most information on the subject are marked with an asterisk * Kostanecki and von Mielicki: Archiv für Pathologische Anatomie, 1890, cxxi., pp 55 and 247, containing a summary of all cases up to the year 1890. Sachs: Jubiläum von Theo Kocher, Wiesbaden, 1891, p 63. Hektoen: Chicago Medical Record, 1891, ii., p 128 Tietze: Zeitschrift für Chirurgie, Leipsic, 1891-92, xxxii, p 421 Tricomi: Riforma Medica, Napoli, 1891, iii., p 541. Cavazzani: Riforma Medica, Napoli, 1891, iv., p. 31. * Paci: Sperimentale, 1891, xlv, p 425 * Lejars: Progrès Médical, Paris, 1892, xv., pp. 113-117 Berger and Fevrier: Bulletin de la Société de Chirurgie, Paris, 1892, xviii, pp 75-80. * Gussenbauer: Beiträge zur Chirurgie, von Billroth, 1892, pp. 250-236. Arndt. Berliner Klinische Wochenschrift, 1892 p. 532. Shattock: Transactions of the Pathological Society of London, 1892, xliv., p. 62. Schlange: Archiv für Klinische Chirurgie, Berlin, 1893, xlvi, pp 390-392. *Karewski Archiv für Pathologische Anatomie, Berlin, 1893, cxxxiii, pp. 237-249. Buscarlet: Revue Médicale de la Suisse, 1893, xiii, p 1 Sulicka: Thèse doct, Paris, 1893-94, No. 492. [illegible] Journal, 1893, xi, p 1. Hamann: [illegible] ix, pp. 110-112. *Giordano: [illegible] pp 630-544. Kopfstein: Wiener [illegible] p. 41. Lichtwitz: Gazette [illegible] ine, Bordeaux, 1895, xvi., p. 471. [illegible] le, Berlin, 1896, ii, pp. 578-618. [illegible] ris, 1896, xliii., pp. 1216-1218. [illegible], 1897, xviii, pp 49-63. Von [illegible] Leipsic, 1897, xxiv., pp 1073-[illegible] Annales de la Société de Médecine de Gand, 1898, lxxviii., pp 174-181. *Sultan: Deutsche Zeitschrift für Chirurgie, Leipsic, 1898, xlviii, pp. 113-155. Vaughan: Brit. Med Jour., 1899, i, p. 148 *Nieny: Beiträge [illegible] xxiii., pp. 89-108. Pouches [illegible] the subject of this paper are d[illegible] Kirchner, Schmidt, Kostane[illegible] first six will be found in Kostanecki's paper mentioned above.

FLIES AND THE SCIENCE OF SCAVENGING.

BY G. V. POORE, M.D., F.R.C.P. LOND.,
PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL; PROFESSOR OF MEDICINE, UNIVERSITY COLLEGE, LONDON.

IN the recent debate[1] at the Clinical Society of London on Dr H. H. Tooth's paper[2] on Enteric Fever in South Africa it was established: (1) that the number of flies in our camps was prodigious; and (2) that these flies were largely a result of the military occupation. There seems also to have been a very general consensus of opinion (3) that flies may convey infection. It becomes therefore of great importance to consider the genesis of flies; and I trust that one who has no claims to be considered a dipterologist may be pardoned for recalling a few common facts.

Flies multiply at a prodigious rate. Given a temperature sufficiently high to hatch the eggs, their numbers are only limited by the amount of food available for them. Linnæus is credited with the saying that three meat-flies, by reason of their rapid multiplication, would consume a dead horse quicker than would a lion, and the fact that certain diptera having some outward resemblance to the honey-bee lay their eggs in the dead carcasses of animals probably led Samson and Virgil to make erroneous statements with regard to the genesis of honey and the manufacture of bees. The breeding of "gentles" for ground-bait is an industry the practisers of which could probably give much information as to the nicety of choice exercised by flies in selecting material for feeding and egg-laying. According to Packard the house-fly makes selection of horse-dung by preference for ovipositing, and as each female lays about 120 eggs and the cycle of changes from egg to fly is completed in less than three weeks it seems probable that a female fly might have some 25,000 000 descendants in the course of a hot summer. Other varieties of flies multiply, I believe, still more rapidly.

---

[1] THE LANCET, March 16th, p. 786, and 30th, 1901, p. 932.
[2] THE LANCET, March 16th, 1901, p. 769

As flies multiply upon, and in, organic refuse of every kind it is obvious that the sooner such refuse is placed where it cannot serve for the feeding and hatching of flies the more likely is the plague of flies to be lessened. The most commonly available method for the bestowal of organic refuse is burial. The egg-laying of flies in dead carcasses commences at the very instant of death, or even before death in the case of enfeebled animals. This fact has been insisted upon by Megnin in "La Faune des Cadavres" and appears to be true of human beings dying from fever. It is obvious, therefore, that there must be no delay in the burial of organic refuse and that the burial of animals and excreta is quite as important as the burial of human beings. After a great battle it may not be possible to follow this advice, but nevertheless there can be no harm in insisting that the instant burial of all organic refuse must be the aim of those who are called upon to guard the public health, whether military or civil.

It is impossible to lay down any line of action which shall be the best under all circumstances, and those who, like myself, have not been through the South African campaign are incompetent to deal with the special circumstances of that campaign. Nevertheless, I am of opinion that much that I have witnessed on Salisbury Plain in connexion with camp-scavenging is bad and is not calculated to teach the soldier the right principles of dealing with organic refuse which is always his most dangerous enemy. The science of scavenging requires to be taught. If the duty of scavenging be left to the ignorant and be controlled by persons who think that necessary details are beneath their notice then annoyance and disease are the only results possible.

If the scavengings of a camp are to be satisfactorily dealt with the question of their ultimate disposal must be ever present in the mind of the scavenger. The materials collected have to be burnt, to be buried, or to be otherwise dealt with. The mere dumping of refuse in mixed heaps ought certainly to be abandoned and the contents of the latrines ought to undergo immediate superficial burial at the nearest available spot in order to avoid cartage and spilling. In many cases it should be possible to bury the excreta in the immediate vicinity of the spot where they are dropped. We hear of excreta being buried in trenches 10 feet deep, but such a course must mean that they are left exposed to give off odours and to breed flies for many hours before they are under ground and covered up. I have consulted a gravedigger on this question and asked him, "If you were ordered to dig a grave 10 feet deep what breadth and length would be necessary and what time would you require?" His reply was that (in chalk) the grave would have to be six and a half feet long and three and a half feet wide, and that he would require a day and a half to complete the work. It is certain that 36 or 48 hours' delay in the disposal of fæces is most undesirable. I have always advocated the burial of fæces in shallow furrows rather than in deep trenches, and, in this country at least, where alone I have had experience, I am convinced that this is the only reasonable course to pursue. If properly done all offence to eyes or nose is thus ended and the fæces cease to attract either flies or rats. The fæces can be covered continuously as soon as they are dropped and there is no need of having malodorous open trenches partially filled which are waiting to be completely filled before being covered up.

This burial of fæces must be done methodically and carefully and with every attention to detail. The proceedings must be precisely those of a gardener who is intent upon raising crops. The fact that in war the crops may never be harvested is quite beside the mark and affords no excuse for slovenly procedures which are a danger to health Nitrification in the soil is the aim equally of the sanitarian and the agriculturist. If a plot of ground 50 yards long and 50 yards wide—slightly more than half an acre—be allotted for the disposal of fæces this should be marked off into, say, 16 strips, each about eight feet wide and 50 yards long, with a narrow path of about 18 inches between each strip to allow for watering and cultivation. The line of the furrows must be accurately marked by a cord and reel in the ordinary way, and the digger must move continuously backwards in order to avoid trampling on the freshly dug ground. The making of the furrows should commence at the point furthest from the latrines and it should gradually come nearer to them. The earth removed from the first furrow should be wheeled down near the latrines where it will be ultimately wanted to cover the last furrow which is dug. The capacity of the furrow or little trench will depend upon the size of the spade I find that, working in ordinary garden soil with a spade having a blade nine inches long and seven inches wide (the furrow being consequently nine inches deep and seven inches wide), eight stable-bucketfuls of soil each holding two and a half gallons, or about 22 pounds weight of earth, were removed. This amounts to two and a half bushels of soil, weighing 176 pounds, as the measure of the capacity of a trenchlet eight feet long. This trench must be filled with excreta and great care must be taken that nothing except fæces and paper and the accompanying urine is placed in it If broken crockery or old tins are accidentally mixed with the excreta they must be removed. The trench being filled with fæces, mark out a digging line at a distance equal to the width of the spade (seven inches) behind the edge of the first trench and then cover the fæces in the first trench by the earth removed in making the second. Owing to the draining away of urine and moisture and their great compressibility it will be found that the excreta undergo a considerable diminution of bulk when tipped into the trench. When the earth of the second trench has been removed and shovelled on to the top of the first trench it will be found that there is a raising of the general level of the ground and the second trench will be found to have a cross section which is rather triangular than rectangular owing to the oblique direction of its front wall which is composed of a sloping bank of friable earth. The surface of the ground must be left crumbly, smooth, and perfectly neat, like a well-prepared garden bed. No particle of fæces or paper must be left uncovered. There will be no offence to eye or nose, no putrefaction is possible and the fæces are beyond the reach of dipterous insects, and if there has been no delay in the collection and burial of the fæces they cannot have been used for oviposition to any great extent, so that the soil will not become infested with "grubs."

How many men will provide the quantity of fæces which can be placed in a trench eight feet long from which 176 pounds weight of earth have been removed? The answer to this question is governed by bulk rather than by weight. If fæces and earth were equal in bulk for equal weights and if we allow a quarter of a pound of fæces for each man—for the urine soaks away and *quâ* bulk may be neglected—then the answer would be 176 × 4 = 704. If the fæces are weight for weight four times as bulky as the earth, the answer is 176. In any case it seems safe to say that a trench eight feet long, nine inches deep, and seven inches wide will suffice to take the fæces of 100 men. This estimate entirely accords with my experience gained in my garden at Andover where the fæcal accumulations of 20 cottages have been disposed of daily in the manner indicated for 18 years and where it takes at least five years to cover an acre of ground in this way. Those who have not had experience of this method of dealing with fæces are apt to have exaggerated views as to the amount of land required. If a trench eight feet long and seven inches wide is sufficient for the disposal of the daily quota of excreta from 100 men, then 10 such trenches occupying an area of eight feet by 70 inches—say six feet—is enough for 1000 men and one strip of ground 50 yards long and eight feet wide would serve for a regiment of 1000 men for 25 days, and the 16 strips would serve for 400 days—let us say half an acre per annum per 1000 men. The actual area necessary will depend to some extent upon the nature of the soil and the care and skill of the scavenger, but in no case can the area required be regarded as a bar to the process—certainly not on the veldt or on Salisbury Plain. It need not be insisted on that a scavenger must be incessantly at work. The excreta should be taken up as soon as dropped and be placed in a covered pail, and the pail when full should be emptied into the furrow and covered up. In this way effluvia are stopped and ovipositing by diptera is rendered impossible. Further, this method of disposing of fæces necessitates no increase of the impedimenta of an army; no lime or chemicals are needed and no apparatus beyond a spade and a set of garden tools.

The ground beneath which the fæces are deposited should when the work is done have the appearance of a well-prepared garden bed and it will need a little attention until it is covered with herbage of some kind. The only question remaining to be decided is as to what that herbage should be. There can be no camp without water-supply, and in every camp one of the sanitary problems is the disposal of waste water. Some of this waste water should be used in time of drought for laying dust and encouraging fertility in that small area of ground beneath the well-tilled surface of which the fæces are safely bestowed. Then, the higher the temperature the quicker will the ground bring forth green leaves to freshen the air. Whether the crop be grass, cabbage, cereals, onions, mustard and cress, lettuces, spinach, or what not must depend upon circumstances. I think the seeds sown in such ground should always be those of culinary vegetables which may prove a real blessing if the camp be long occupied. With a little care in a hot climate one may have a green covering of grass or mustard and cress in a week which at least will give off oxygen to the air even if it do not serve as an anti scorbutic diet for man and beast—a diet which may just supply that something which is lacking in tinned and salted provisions

In a temporary camp these methods of excrement disposal are the best on the grounds of immediate hygiene In places like Salisbury Plain which are to be used as camping grounds year after year, latrine gardens are essential and, if properly managed, should furnish a good many acceptable extras for the canteens. Last year at Perham, on Salisbury Plain, there was a field of many acres occupied by the scavenging contractor and placed a few hundred yards from the camping ground On this were piled heaps of camp refuse, old tins, meat bones, broken victuals, packing materials, and fæces which had been "dumped" with a view to burning when dry enough. In their recent state these heaps (in which flies were swarming) could be smelt for a quarter of a mile down wind and when they began to burn the offensive smoke drifted still further and not seldom over the camps themselves This haphazard method of "dumping" refuse in pestiferous heaps is not economical, not even from the point of view of the area of ground required, and would be rendered unnecessary by a little care in collection and the judicious use of the spade by men who knew how to turn these despised materials to profitable account Horse-dung in the same way should be neatly stacked in heaps like hotbeds, protected at the sides and covered with earth In this way the flies would be prevented from feeding and egg-laying on the dung, large quantities of saladings might be produced, and when the camp was moved this well rotted material should be applied to the camping ground with a view to the renovation of the turf. On Salisbury Plain the growth of summer is trodden under foot and there is no systematic renovation in the winter On turf downs the actual camping ground should be changed every year and the ground "top dressed" as soon as the camp breaks up in the autumn. Without careful management and good husbandry these downs will soon be trampled and scuffled into a dusty wilderness. In the same way all the kitchen refuse should (after utilisation to a maximum extent in the stock-pot, &c) be neatly stacked, protected at the sides and covered with earth. All organic refuse should be completely protected by soil from the attacks of diptera and its fertilising properties should be utilised forthwith

It is sometimes said that we ought to be ready to forgive the house flies for the annoyance which they cause to us because of their great services as scavengers; but I am rather inclined to take the view that the presence of flies is a reproach to us for not putting organic refuse to its proper use and that the fly is a robber which has been bred in material which we have deliberately allowed to lie above ground instead of covering it with soil The scrupulous sweeping up of crumbs and food particles immediately after meals and the instant removal of the remains of food to fly-proof larders need not be insisted upon I believe that a great advance in domestic hygiene will have been made when the custom is more general of removing dung every day from our stables, piggeries, cattle-sheds, and poultry-runs, and stacking it carefully so as to prevent the access of diptera, or burying it immediately beneath the surface of well-tilled soil with a view to the production of crops We pity the horse "turned out" in a paddock when we see it tormented with "flies" Few of us pause to think that if the horse dung had been collected daily and put to more profitable use instead of being allowed to lie about and generate a plague of flies the animal might have been happier and the dung might have been more valuable for fertilising purposes When flies breed in dung-heaps the larvæ eat the dung and leave the straw If each fly needs one grain only of sustenance then the 25,000,000 which I have stated as the possible season's progeny of a female house fly will be capable of robbing a farmer of 25,000,000 grains of fertilising material, which at 7000 grains to the pound works out at 3571 pounds, or considerably more than one and a half tons. It is bad economy to have your scavenging done by flies and sad to see your potential wealth make to itself wings and fly away. In my garden at Andover where human excreta have undergone daily superficial burial for about 18 years there is no excess of flies and I have come to the conclusion that an essential part of garden management is the daily collection of all garden offal, such as dead leaves, fallen and rotten fruit, &c., and either superficially burying or stacking it so that it shall not serve as a breeding-ground for insects which often prey upon the plums and peaches in the autumn

In the management of refuse I am no advocate for the use of chemical disinfectants These are expensive, generally evil-smelling, often poisonous, and lead to an increase of material to be transported The soil is quite capable, with proper management, of turning all organic refuse into "soil"—a fact which the experiments of Sir Seymour Haden and myself have abundantly proved. Our experiments have also shown that from the point of view of the innocuous transformation of organic refuse into "soil" deep burial is a mistake This is true alike of dead animals and of excreta We are happily hearing less of the pollution of the earth and of the growth of microbes and toxins in the soil and even from the laboratories of bacteriologists we are learning that the soil is our best friend. The use of quick-lime in the treatment of excreta is, I believe, quite unnecessary My experiments in burying small animals tend to show that the quick-lime preserves the body and mischievously prevents the beneficent action of the soil In the management of refuse there must be no slovenly "dumping" What is wanted is proper sorting at the time of collection great attention to detail, absolute neatness, and an appreciation of the ends to be attained

In recommending the immediate collection of all organic refuse and its instant covering with earth I am making no new recommendation Moses had had experience of a "plague of flies" in Africa and was no novice in the matter of camp-management He found it necessary to be most explicit in his directions for the treatment of excreta. These directions are given in Deuteronomy xxiii , 12–14, and I find that in the revised version of the English Bible there is an interesting change in the passage. The old version runs thus:

> Thou shalt have a place also without the camp, whither thou shalt go forth abroad:
>
> And thou shalt have a paddle upon the weapon, and it shall be, when thou wilt ease thyself [sittest down] abroad, thou shalt dig therewith, and cover that which cometh from thee:
>
> For the Lord thy God walketh in the midst of thy camp, to deliver thee, and to give up thine enemies before thee; therefore shall thy camp be holy: that he see no unclean thing in thee [nakedness of anything] and turn away from thee

The new version says (verse 13): "Thou shalt have a paddle *among* thy weapons," and as a variant for paddle gives "shovel" in the margin The passage, therefore, means that a shovel for burying excreta immediately is a necessary implement in every camp

Portland-place, W.

A CASE OF

SYMMETRICAL RETINAL DETACHMENT OCCURRING DURING LABOUR AND ASSOCIATED WITH ALBUMINURIA RESULTING IN COMPLETE RECOVERY.

BY REGINALD G. HANN, M R C.S ENG , L R C P. LOND ,

AND

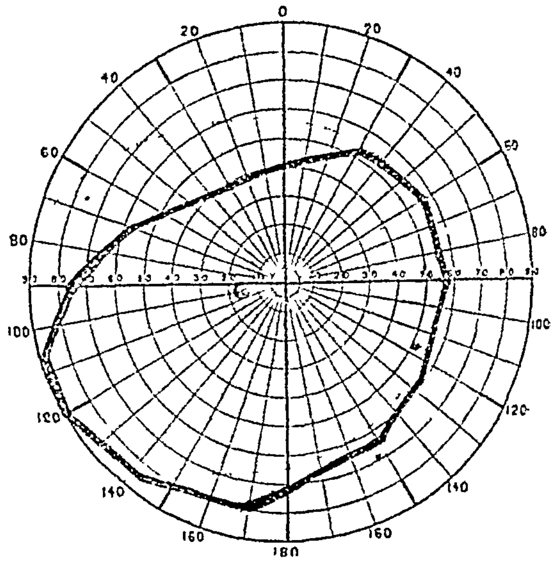
R LAWFORD KNAGGS, M C CANTAB , F R C S ENG.

THE onset of sudden blindness during labour is a symptom which would naturally excite attention, but perhaps from the fact that a large majority of these cases recover vision and from the attendant circumstances the ocular conditions are not often investigated at the time. This no doubt accounts for the paucity of recorded cases One cause of blindness during labour is retinal detachment in association with general œdema or eclampsia. The connexion of these two conditions with renal disease is generally accepted, but retinal detachments occurring during labour run a very different course from that of detachments occurring in the course of renal retinitis. The former end in recovery; the latter are usually a prelude to a fatal issue. The following case is a contribution to the subject.

The patient was a woman, aged 21 years, who, with the exception of scarlet fever in childhood, had had no illness until her first confinement on Nov. 25th, 1900. When first seen she had been in labour for 24 hours; the pains were severe and prolonged, recurring at intervals of about five minutes. There was œdema of the face, hands, feet, and legs, and according to the friends this had been present for about three weeks. For three hours the pains continued with great intensity, then the patient fell into a state of semi-coma with stertorous breathing, from which she would be roused by the pains; shortly before the onset of this condition she complained of inability to see, and from her actions it was obvious that she was quite blind. So far as could be gathered this blindness was of sudden onset. Forceps were now applied and the labour was terminated. The following day she remained semi-comatose, and for 30 hours from the birth of the child no urine was secreted. On the 27th she was conscious, dull, and lethargic, and she passed a small quantity of urine containing much albumin, though owing to the puerperal state this observation is of uncertain value. Under atropine an ophthalmoscopic examination of the eyes was made. In both very large and obvious detachments filled up the lower third of each globe. They were symmetrical in appearance and bilobed in outline, owing to a depression in the middle. They floated up readily on the slightest movement of the eye and had all the usual characters of detached retinæ. The discs, which were just clear of their summits, had defined edges, but were surrounded by an œdematous pallor. Though the patient was to all intents and purposes blind it was elicited that some kind of vision was present, but she was too drowsy and too easily tired for prolonged examination. Her general condition after this date rapidly improved; the œdema all disappeared in the first week, the drowsiness passed away and she became brighter and more intelligent. During the whole period that she was under observation, however, a trace of albumin was always to be found in the urine. On Dec. 22nd an examination of the eyes was made, the pupils being dilated with atropine. The retinal detachments were no longer to be seen. Close to the ora serrata in the lower part of the right globe it was just doubtful if the retina was yet completely reapplied. Through the retina at this spot, however, pigment patches could be seen and if any projection of the retina that could be called detachment existed it was evident, notwithstanding the difficulty of examining a part so far forward, that it was very trivial. With this qualification it may be stated that both detachments had completely disappeared. The edges of the discs were slightly blurred and swollen, but their physiological cups were well marked. There was very slight tortuosity of some of the vessels. Scattered over the fundus in both eyes was a general but an irregular distribution of pigment granules, spots, and patches, and the latter in places, and especially in the right macular region, were confluent The pigment spots were much deeper in colour than were the patches. Vision: right eye with + 1·5 D = $\frac{6}{18}$; left eye with + 1 5 D. = $\frac{6}{12}$ (one letter). The fields showed definite symmetrical contractions in the upper hemisphere—no doubt due to impairment of function dependent upon the recent detachments. The urine was acid and of specific gravity 1012. A ring of albumin was observable and there was a trace of sugar (?) No casts were found. Jan. 8th 1901 —Vision: right eye = $\frac{6}{9}$ (two letters); left eye = $\frac{6}{9}$ (several letters). No improvement could be gained by glasses. On the 9th, with the pupils widely dilated with homatropine, it was seen that all traces of the remnant of the detachment in the right globe had completely gone. The fields were unaltered, still showing the limitation in the upper hemispheres.

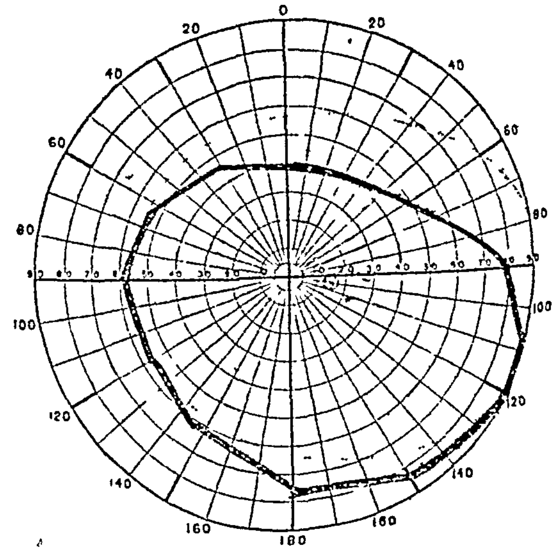
In this case the influence of labour in producing the detachments was unmistakeable. Under less trying circumstances the interior tunics of the eye are probably protected from the œdema which is present in the other tissues by the intra-ocular tension. During the labour pains the return of the venous blood must be retarded and a considerable back pressure must be put upon the capillary circulation. For three hours at least before the development of blindness in the case recorded this intermittent retardation had been going on every five minutes, and though no increase of the general anasarca was noticed—a point that might easily escape observation—it is not difficult to imagine that, so far as the eyes were concerned, the relation between the intra-capillary and intra-ocular tension was so modified as to lead to an effusion of serum into their tissues. This effusion must have been far more copious in the choroid than in the retina, owing to the very great difference in vascularity between the two structures, and the fluid poured out behind the retina and gravitating, as is customary, to the lower part of the globe, would float the retina up upon its surface. With the passing away of the exciting cause the natural relation between the blood-pressure and the ocular tension would return, absorption of the dropsical fluid would take place, and the retina would become reapplied. Given the general tendency to œdema dependent upon the renal disease the mechanical conditions affecting the circulation induced by the strains of the labour were probably quite sufficient to account for the detachments. There is no reason to suppose that there was any renal retinitis present. Nothing that could be described as such was noticed on the second day after delivery, and the alterations in the fundus seen at a later date were doubtless the result of the disturbance to which the choroid and retina had been subjected.

FIG. 1.



Perimeter of right eye.

FIG. 2.



Perimeter of left eye.

We are aware of only one case that definitely resembles the one just related. It is recorded by Adamuk. In it binocular detachments occurred during severe eclamptic attacks in the eighth month of pregnancy. Premature delivery was followed by spontaneous recovery.[1]

In a clinical lecture, on "Pregnancy Nephritis" Dr. Reginald Southey[2] has recorded a case of detachment of the retina occurring about the time of delivery which forms a most instructive contrast to the foregoing case. A domestic servant, aged 23 years, was admitted to St. Bartholomew's Hospital with general dropsy of three weeks' duration. There was albuminuria and in the course of a week she had become nearly blind, both discs being swollen and red. Five days after admission (Feb. 14th, 1882) she was delivered of a dead fœtus, "but in consequence probably of labour pains and straining there was slight hæmorrhage in each upper eyelid and the conjunctivæ were very œdematous" On Feb. 18th there was found in the right eye a patch of white effusion near the disc and extensive detachment of the lower half of the retina in the form of three large cusps In the left eye were two hæmorrhages. On March 6th no trace of the detachment in the right eye could be discovered, but there were optic neuritis, several patches of effusion here and there, and some pigmentation which was most marked where the detachment had been. The albuminuria disappeared a week after delivery and the patient was discharged well on March 15th with no complaint about her sight and able to read the daily papers.

Now *the blindness* in Dr. Southey's case did not come on suddenly during labour but had been gradually increasing for nearly a fortnight before. It was apparently due to well-marked albuminuric neuro-retinitis which was most advanced in that eye in which the detachment subsequently formed. The part that the actual labour played in the production of the detachment is open to question, but whilst the latter soon disappeared, the retinitis, for a time at least, got worse. Though there were no eclamptic seizures, and from Dr. Southey's account the pains can hardly have been either severe or prolonged, it is nevertheless probable that the latter were sufficient to lead to the detachment in that eye in which the more profound inflammatory changes had prepared the way. In our case the pains were severe, and the detachments were symmetrical, but there was no albuminuric retinitis. From this it will be seen that we incline to the mechanical explanation of the detachments, whether inflammation of the retina is present or not, and regard retinitis as a predisposing cause, but the labour as the exciting one.

Ophthalmic surgeons must be familiar with cases in which a history is given of eclamptic attacks and of blindness following confinement and ending in recovery. These cases are rarely investigated at the most interesting period and when they are subsequently seen there is probably nothing found to explain what the exact condition was. Possibly detachments of retinæ or suddenly developed œdema of the choroid and retina may explain some of them. The following is a case in point. A woman had to have her first pregnancy terminated between the sixth and seventh month for puerperal eclampsia After her confinement she was quite blind for four days. She had gorgeous visions of various colours and there was an instantaneous shifting from lightness to darkness; then sight gradually returned. The albuminuria disappeared a few days after the confinement. A year later beyond a little grey haze about both discs and slight tortuosity of the vessels there was nothing abnormal to be seen.

Leeds.

---

[1] Abstract, Knapp's Archives of Ophthalmology, vol. xx., p 457.

[2] THE LANCET, Jan. 13th, 1883, p. 47.

ROYAL MINERAL WATER HOSPITAL, BATH.—The annual meeting of the subscribers of this institution was held on May 2nd, under the presidency of Colonel Vaughton-Dynnock. The one hundred and fifty-ninth annual report stated that owing to extensive alterations in the building the greater number of beds had been closed since August last and the number of in-patients had been limited to 50. The financial statement showed that the expenditure had exceeded the income. The report added that an appeal had been made to the public for the necessary funds, which were estimated at £6000, to meet the expense of the necessary alterations, but only £450 had been received in response, so that the committee are compelled to use some of their capital for the purpose. Mr. W. Kemble was elected President.

IS THE MURMUR OF MITRAL STENOSIS SYSTOLIC OR PRESYSTOLIC IN RHYTHM?

BY HUGH WALSHAM, M.A., M.D. CANTAB., F R.C P. LOND,
PHYSICIAN IN CHARGE OF OUT-PATIENTS TO THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.

AS a student I was taught, and I believed, that the murmur of mitral stenosis was presystolic in rhythm. I read M. Fauvel's paper on the subject in the *Archives Générales de Médecine*;[1] I applied what I there read to as many cases of mitral stenosis as I had the chance of examining; and I satisfied myself that the thrill and murmur were really presystolic. It was therefore with somewhat of a shock that I read Dr. W. H. Dickinson's paper published in THE LANCET of Oct. 1st, 1887, p. 650, entitled, "Remarks on the Presystolic Murmur, Falsely so called." I read this interesting paper carefully and was almost convinced but not quite.

It is not my intention in this paper to go over the ground again, at least from the same standpoint. It appeared to me that the Roentgen rays might possibly be able to settle the question. I thought what the sense of touch and hearing was unable conclusively to synchronise the addition of that of sight might. Since the installation of the Roentgen-ray apparatus in the City of London Hospital for Diseases of the Chest I have examined, as a matter of routine, all my cases of mitral stenosis with the x rays, and have, I venture to think, learned much thereby as to the rhythm of the thrill and murmur of this variety of valvular disease. It will be well, however, before discussing the question, to describe shortly what is seen of the action of the normal heart on the fluorescent screen. The shadow of the normal heart shows changes of form synchronous with the rhythmical contractions of the organ. The movement of the apex, when this is well seen, is always a heaving movement which carries the apex somewhat rapidly towards the left, followed by a retreat more rapid still towards the middle line. It is not the apex of the cardiac shadow, however, as we should have thought, that presents the greatest displacement, but the middle of the left border corresponding to the ventricular cavity at a point where it crosses the shadow of the fourth left rib. The displacement of the left border of the cardiac shadow manifestly corresponds to the alternate systole and diastole of the organ. If with these movements before our eyes we auscultate the heart by means of a flexible stethoscope we can satisfy ourselves that the first sound of the heart corresponds to the exact moment when the movement of projection of the cardiac shadow towards the left gives place to its immediate retreat towards the middle line. The projection towards the left is therefore clearly presystolic and corresponds to the systole of the auricles, while the movement of retreat corresponds to the systole of the ventricles. After this movement of retreat comes a slow and progressive distension of the shadow of the ventricular wall, only occasionally seen, which corresponds to the period of repose of the organ. Then begins anew the brisk projection of the shadow towards the left during the systole of the auricles. Professor Potain has observed that this projection of the cardiac shadow coincides with the external phenomena of the impulse as perceived by inspection and palpation of the præcordial region. There can be, I think, no question that the visible impulse, distinct from the brisk shock which follows it, is a presystolic phenomenon, due to the systole of the auricles and to the consecutive distension of the ventricles. Radiography demonstrates in some cases beyond question that the position of the shadow which really corresponds to the apex of the heart is obviously below the point of cardiac impulse against the chest wall. The contour of the shadow of the right side of the heart when it projects beyond the sternal and spinal shadow shows movements of the same rhythm as those of the ventricular line. So much for the normal heart as seen beating with the screen.

I will now pass on to the heart of mitral stenosis. In a well-marked case of so-called pure mitral stenosis if the hand be placed over the præcordial region at the point of maximum intensity of the thrill (and this can be done without obliterating the shadow of the heart on the screen) and the cardiac shadow be watched, we find that the thrill corresponds to the advance of the left border of the shadow of the heart to the left and ends abruptly with the retreat of the shadow towards the median line—that is to say, the thrill is obviously presystolic in rhythm and ends with the systole. It begins with the advance of the left border of the cardiac shadow to the left—that is, during the auricular systole—and ends with the retreat of the shadow towards the middle line—that is to say, with the ventricular systole. Again, if while watching the heart with the screen the chest-piece of a binaural stethoscope be placed on the screen at the point of maximum intensity of the murmur (previously determined) it will be found that the murmur begins at the moment when the shadow of the left ventricle is advancing to the left—that is, during the auricular systole—and ends abruptly when the shadow retreats towards the middle line—that is, with the ventricular systole. I have examined a good many cases of pure mitral stenosis with reference to this point and have convinced myself that the thrill and murmur are truly presystolic in rhythm.

---

[1] Archives Générales de Medicine, 4e série, tome I., p. 1, 1843. The original paper on the subject.

It is very interesting to go through the correspondence in THE LANCET that followed the publication of Dr. Dickinson's paper. Dr. Graham Steell, in a letter on the subject on Oct 15th, 1887, p. 784, came very near to a solution of the question. He says: "Dr. Dickinson states that he has found that the presystolic murmur begins with systolic (i.e, ventricular?) movement, but such movement does not necessarily imply contraction. It seems very likely that there will be some movement communicated to the ventricles by the contraction of the auricles." This is exactly what happens.

Harley-street, W.

OPO-THERAPY IN GYNÆCOLOGY.

BY JOHN PHILLIPS, M.A., M.D. CANTAB.,
F.R.C.P. LOND.,
OBSTETRIC PHYSICIAN TO KING'S COLLEGE HOSPITAL AND LECTURER ON
PRACTICAL OBSTETRICS IN KING'S COLLEGE; EXAMINER IN
OBSTETRIC MEDICINE TO THE ROYAL COLLEGE
OF PHYSICIANS OF LONDON.

OPO-THERAPY, which seems a preferable word to organotherapy, was created by Landouzy to designate the science which treats of curative elements found in the "internal secretion" of certain ductless glands. As the latest craze seems to be the treatment by animal extracts it behoves us carefully to consider whether there is any real ground for supposing that such treatment is efficacious, and if so on what lines and in what manner it should be carried out. The three extracts which must be considered would appear to be (1) thyroid extract; (2) ovarian extract; and (3) extract of the mammary gland

1. In considering the first it need only be said that ample clinical evidence shows that certain nutrition disorders associated with pelvic disturbance are undoubtedly benefited by this treatment; moreover, the dose of the drug is known and its toxic effects are recognised. It is certainly of value in amenorrhœa so often found to accompany extreme obesity and as a complication of myxœdema; according to some authorities it is beneficial in the hæmorrhages of fibroid tumours of the uterus.

2. In considering the treatment by ovarian extract much difficulty must be encountered at the onset as we are dealing with a drug the dosage and the toxic effects of which are so far quite an unknown quantity. Dr. Régis[1] seems to have been one of the earliest authorities to record the use of ovarian juice. He prescribed it in a case of mania following removal of both ovaries and tubes; the result was most successful although many injections were necessary. Leopold Landau[2] gives his support to this mode of treatment, and since then many original articles (with detailed observations) have been written recommending its adoption in increasingly numerous varieties of female disease.

The methods of administration of ovarian extract appear to be three: (1) that followed by Knauer who grafted the fresh gland into the peritoneum or under the skin;[3] (2) Brown-Séquard's method by subcutaneous injections of the organic extracts; and (3) the method recommended by Horwitz and others and now in general use—viz., administering the extract by the mouth or the rectum, either in a natural state, in the form of "ovarine" tabloids, or as a glycerine extract. With the thyroid extract both dose and toxic effects are well known, but so far no satisfactory evidence has been brought forward as to the effects of ovarian extract. Five-grain tabloids have been given as a rule thrice daily, and I have prescribed as many as three tabloids thrice daily without any toxic effects or any amelioration of the symptoms arising. Jayle has observed zona and Schuster general urticaria after prolonged ingestion of ovarian extract. I saw one case of the latter, of which there was no doubt, but I am strongly of opinion that the rash was due not to the drug but to some impurity in the vehicle of administration. I have given ovarian extract in many diseases (often experimentally), but in none have I obtained any definitely satisfactory results, with the exceptions of the natural and the artificially induced menopause. In eight cases of menopause the distressing headaches and flushes were certainly relieved, but whether this was the possible result of suggestion or not I am unable to say; Krusen,[4] after a three and a half years' experience, is of a somewhat similar opinion. He says that in the treatment of amenorrhœa and dysmenorrhœa it is useless and he noticed no appreciable result in its exhibition during the natural menopause. He thinks that the best results in opo-therapy are attained by the use of the thyroid and adrenal glands and that the ovary in function is in no sense analogous to these organs. Jullen[5] finds the drug, on the contrary, of great value in post-operative menopausal symptoms, in amenorrhœa, dysmenorrhœa, anæmia, and chlorosis, and osteomalacia. He gives full notes of 41 cases in support of his assertions.

3 The administration of mammary abstract is surrounded by still greater uncertainty. It is best given in the raw state, cow's udder being cut into thin slices and made into a salad. This method has been frequently prescribed and carried out by Freudenberg.[6] No toxic or other effects beyond a suspicion of improvement in lactation during its ingestion have been recorded.

Brook-street, W.

SOME QUESTIONS WITH REGARD TO ACUTE MIDDLE-EAR INFLAMMATION.

BY P. McBRIDE, M D., F.R.C.P., F.R.S. EDIN.,
SURGEON TO THE EAR AND THROAT DEPARTMENT, ROYAL INFIRMARY,
EDINBURGH; LECTURER ON DISEASES OF THE EAR, THROAT,
AND NOSE, EDINBURGH UNIVERSITY.

THE fact that some unsolved problems still remain with regard to acute middle-ear inflammation was very forcibly brought home to me by the following case.

A man, aged 48 years, consulted me on Jan. 12th of this year giving the following history. On Dec. 21st, 1900, he had a nasal and bronchial catarrh; pain in the left ear came on 10 days later, followed by a free discharge of matter. When I examined him the hearing on the right side was fairly good, but a watch normally heard at 30 inches was not perceived by the left ear when pressed against it, and words spoken in an ordinary tone could only be distinguished when uttered quite close to the auricle. On examination after the removal of the discharge a small pouting perforation was seen above the middle of the membrane, which was, as is usual in these cases, red and bulged, while the malleus was invisible. Air passed through the perforation readily, and after the parts had been freed as much as possible from discharge the patient could hear an ordinary voice across my room. Examination of the anterior nares revealed no abnormality, but on posterior rhinoscopy I saw some pus in the right choana, while about the middle of the septum there was symmetrical thickening—a condition which I meet with so frequently that I do not attach any importance to it. The presence of pus, however, seemed to me to be important and it at once suggested the possibility of an affection of one of the accessory cavities of the nose, although I recognised that it might be due to the remains of a severe pharyngitis. I syringed out the ear with carbolic solution and plugged it with sterilised gauze. On Jan. 14th, 1901, the gauze was dry, but on blowing by Valsalva's method pus came through the perforation which seemed to have contracted. My watch was heard in contact, but a low conversational voice could only be heard quite near the left ear. I passed the Eustachian catheter, not caring to risk the use of Politzer's method for fear of driving pus up the Eustachian tubes. It will be noted that I allowed the patient to perform Valsalva's experiment at the beginning of this visit, but I think that this was a mistake as it might have resulted in infection of the other ear. I noted that the teeth in the upper jaw were bad, and the patient told me that he had long complained of something dropping into the right side of his throat. As a repetition of the plugging would probably have led to closure of the perforation without cessation of exudation I ordered him to syringe the ear with sterilised boric solution and to dry out with sterilised wool. After this I passed the Eustachian catheter once or twice, but no improvement resulted. On the 22nd there was a little tenderness over the tip of the mastoid and the perforation had further contracted. All through the membrane had tended to bulge and under these circumstances I enlarged the opening by free incision, having first applied Bonain's mixture (carbolic acid, menthol, and cocaine) On this visit transillumination showed the right antrum of Highmore to be opaque. There remained, therefore, little doubt that there was empyema of this cavity and that the pus in the right choana proceeded from it by way of an accessory opening. I have frequently met with such cases in which no pus appeared in the middle meatus as seen by anterior rhinoscopy and in which the first indication was afforded, as in this instance, by the results of posterior rhinoscopy.

---

[1] Gazette Médicale de Paris, 1893, No. 41, p 481.

[2] Verhandlungen der Berliner Medicinische Gesellschaft, 1895–6, Band xxvii, S. 182.

[3] Einige Versuche über Ovarientransplantation bei Kaninchen, Centralblatt für Gynäkologie, 1896, No. 20, S. 524.

[4] International Medical Magazine, November, 1900.

[5] Sur la Valeur de l'Opothérapie Ovarienne, Thesis, Lille, 1899.

[6] Der Frauenarzt, August 17th, 1900, S 353.

I need not follow all the tedious details of this case from day to day. Suffice it to say that while the mastoid pain abated and the discharge became more abundant the perforation gradually diminished in size and again tended to present that pouting appearance which is of such unfavourable significance in these cases. Having made sure of the existence of pus in the right antrum of Highmore I proposed to delay having it attended to until the ear healed. The latter, however, not only showed no signs of healing, but looked very much as if its condition would necessitate draining through the mastoid. While quite recognising that possibly the empyema of the antrum was the original source of infection I failed to realise its importance as a factor in keeping up the middle-ear suppuration. It was more because draining the cavity could do no harm, and if, as I expected, a mastoid operation should become necessary I would rather operate without the presence of pus in the maxillary sinus, that I finally, on Feb. 21st, recommended that a dentist should be asked to open the antrum of Highmore and to insert a plug. I may mention that in the first instance I always have my cases treated in this way, as a good dentist is perfectly capable of making a satisfactory opening and is able to introduce a neatly-fitting plug which the patient can readily learn to put in and take out. If subsequently a larger opening followed by curretting, or a counter opening into the nose, becomes necessary I carry out these proceedings myself. In the case of the patient under consideration pus was evacuated, but after a few days the liquid syringed through was found to be clear, showing that probably the antral suppuration will speedily subside. The operation was performed on the 22nd, and on the 24th the hearing began to improve. On the 26th there was practically no discharge. On March 5th he could hear a whisper across my room and the membrane was beginning to resume its normal colour; while on the 11th a low whisper was perceived at 18 feet, and the membrane was proved to have definitely healed.

I have given this case in some detail, not only on account of its interest, but also because its consideration seems eminently adapted for raising several important questions with regard to acute middle-ear inflammation. These I shall treat shortly *seriatim*.

1. *The connexion between acute otitis media and affections of the nose and naso-pharynx.*—It is of course perfectly well known that acute nasal or pharyngeal inflammation may lead to suppuration of the middle ear. It is also known that marked adenoids, and possibly much enlarged inferior turbinals, may predispose to the affection. It is, however, not sufficiently recognised that there is a form of adenoids which practically produces no other trouble but which may be responsible for recurrent attacks. In these cases the patient breathes perfectly; he may be subject to colds in the head but they do not attract much attention. On examining with the rhinoscopic mirror, however, a layer of adenoid tissue is observed occupying the space between the Eustachian orifices and apparently pressing upon their margins. On digital examination the lymphoid tissue will be felt, but it will be observed that there is not any great quantity present. In such cases, however, the recurrent acute ear attacks will usually cease after the adenoid tissue has been removed. The relation between empyema of an accessory cavity and acute middle-ear inflammation has not, I think, been hitherto more than incidentally alluded to. The instance above described shows a very distinct connexion, as it is hardly conceivable that the rapid cure of a case which until the antrum of Highmore had been opened seemed going from bad to worse was merely a coincidence. It is of interest to note that the empyema of the antrum was on the right side, while the ear affection was on the left. It seems obvious that in some way the presence of free pus in the right choana affected the opposite ear, but I do not think that the *modus operandi* will repay speculative discussion.

2. *What is the best method of treating middle-ear inflammation after spontaneous or artificial perforation has occurred?*—I do not think that the new method of plugging the meatus with aseptic dressing after so far as possible sterilising the canal is at all suitable for all cases. In this instance the perforation certainly diminished in the two days during which such dressings were applied and, as it appeared to me, on account of their application. In future I shall adopt this method with great caution, if at all, when the perforation is small and the membrane tends to bulge. It is of course now the custom to decry the use of Politzer's bag and even the catheter in all cases while suppuration is still going on. In the instance just described the former was certainly contra-indicated because of the presence of pus in the right choana and possibly there was some risk in employing even the latter. In the average patient, however, where there is no recognisable infective secretion in the nose or naso-pharynx and where drainage is difficult owing to the small size of the perforation I am still inclined to advocate both methods. If they seem actually beneficial I am not disposed to be deterred from their use because they are hypothetically or even theoretically dangerous.

3. *When should the question of mastoid operation be considered?*—There are two conditions which, after perforation has occurred, seem to me to indicate that the case will be troublesome—to wit, (1) excessive discharge, and (2) a small perforation in a bulged membrane. When the discharge appears in such quantity that it is hardly conceivable that it can be all secreted by the lining membrane of the tympanum it will usually be found that after a varying period some tenderness, or even spontaneous pain, arises in the mastoid region. If then Schwartze's operation be performed it will often be discovered either that the whole process is more or less softened and infiltrated with granulations or that the antrum is large and contains much pus. The former is the more common and in my experience it is a frequent complication in influenzal otitis.

In the presence of a small pouting perforation and a bulged membrane, such as existed in the case recorded, the surgeon is often in great difficulties as to how best to obtain drainage. A free incision is valuable for the moment, but, as every experienced aurist knows, it soon closes and the condition is no better than before. The least indication of mastoid inflammation will give an excuse for operating and I believe that, given the above condition of matters persisting after other remedies have had a fair trial, this excuse should in the interests of the patient be taken immediate advantage of. It is, indeed, an open question whether the occurrence of pain should be awaited.

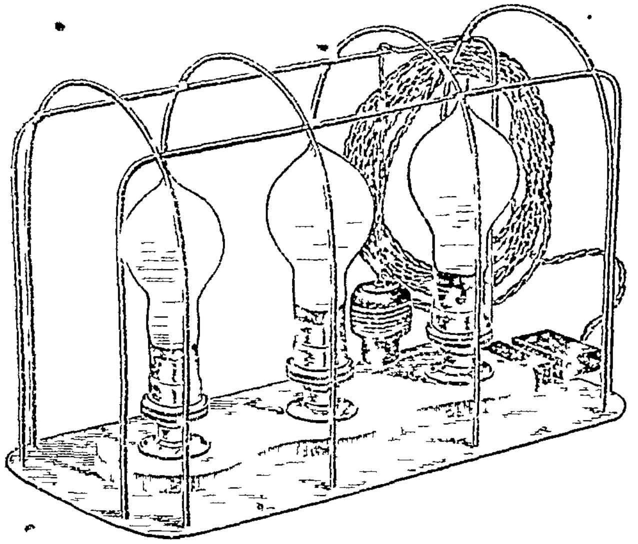
One word more as to the method of operating in these recent cases. It is of the utmost importance that the middle-ear structures should be respected, and for this reason I again repeat that Schwartze's method should be adopted, associated, if necessary, with the removal of any softened bone which may be found in the lower part of the process. If these rules be adhered to we commonly find that the discharge from the ear ceases, the membrane heals, and almost perfect hearing results.

Edinburgh.

A SIMPLE FORM OF ELECTRICAL LIGHT AND HEAT BATH, WITH EIGHT CASES OF OSTEO-ARTHRITIS TREATED BY IT.

BY F. C. EVE, M.B. CANTAB., M.R.C.P.,
HOUSE PHYSICIAN AT THE ROYAL INFIRMARY, HULL; LATE HOUSE PHYSICIAN, ST. THOMAS'S HOSPITAL.

THE apparatus[1] consists of three 32-candle power lamps fixed on an aluminium base and protected by a wire cage from contact with the skin of the patient or with the blankets forming the walls of the chamber. A piece of flexible wire connects the apparatus with the socket of any domestic lamp-holder, the lamp having been first removed. The amount of current consumed by the apparatus is not sufficient to damage the domestic installation or to blow fuses, and costs about twopence per hour. The apparatus may be used to heat up a single limb or the whole body and it has been employed in eight cases of chronic joint disease with the result that mobility has always been markedly increased and pain has been almost always entirely relieved.



The electrothermogen ready for use. The adapter at the end of the coil of flexible wire is merely substituted for an ordinary incandescent electric lamp in the bedroom or ward and the current then switched on.

The limb, the apparatus, and a thermometer are all placed together under a chamber formed of several blankets thrown over a cradle. The limb is covered with a single layer of lint to prevent any risk of scorching a particularly tender skin. This is gradually withdrawn in successive baths. The temperature of the chamber rises in from 15 to 30 minutes to from 200° to 250° F. The limb sweats copiously and a general perspiration is induced. As a rule the body temperature rises two or three degrees, especially when the whole body is treated. Frequently the limb acquires a transient mottled erythema. Even in the most obstinate cases pain practically always subsides by the end of the hour and generally it does not recur for several days. Constitutional treatment should be directed towards supporting the patient's strength during a course of baths, which may be repeated daily or on every second or third day.

It is maintained that practically the same benefit is derived from this small apparatus as from the more elaborate contrivances now in use, but these unfortunately are either very costly or can only be hired at a high rental. The temperature is not so high in the electrothermogen, but it is as much as the patient can endure for one hour.

At the end of a bath a stiff joint is much more supple and less tender, so that an excellent opportunity for massage is afforded. If it is desired to treat the whole body, after the fashion of a hot-air bath, such as is given in cases of renal disease, it is necessary to employ two pieces of apparatus to heat the larger chamber. The wicker chamber of the bath above referred to serves very well, but a very portable framework has also been designed, over which blankets are thrown.

So far the treatment has been applied to eight cases of rheumatoid arthritis—all very severe cases in which pain and deformity were prominent symptoms. The ages ranged between six years and 60 years, and the results as regards pain and stiffness have been very good, but in some of my cases a "sticking point" seems to be reached beyond which improvement does not proceed. They are in no sense selected cases.

CASE 1.—The patient was a man, aged 59 years, with a history of 18 months' illness. Advanced osteo-arthritis was present in all the limbs, with swelling, lipping of the cartilages, contractures, stiffness, and constant dull pain. The patient had several hot-air baths with relief from pain. He had enlargement of the epitrochlear, axillary, and inguinal glands, especially of the former.

CASE 2.—The age of the patient was 21 years. There had been chronic arthritis in many joints for six months. One of the knees was much enlarged and very painful. The thyroid gland had been enlarged for three months. The pain remained unrelieved after undergoing seven well known methods of treatment extending over three months, but complete relief (persisting until discharge from treatment) was brought about by a few baths.

CASE 3.—The patient was a boy, aged six and a half years. He was a very pale, fragile boy, bearing a most striking resemblance to the picture in Clifford Allbutt's work illustrating rheumatoid arthritis in the child. For one and a half years he had had marked swelling in, and immobility of, almost every joint, associated with anæmia and enlargement of the spleen and of the axillary and inguinal glands. This condition had steadily advanced, leading to wasting of the muscles and contracture of the legs. He was given nine baths of half an hour at 180° F. He seemed to be able to tolerate no higher temperature and he was taken out directly his own temperature reached 100°. There was a decided increase in mobility of the joints, the knee being extensible through 50 additional degrees. But the child seemed to be too fragile for the treatment, so it was discontinued and the ground which had been gained was subsequently more than lost.

CASE 4.—The patient, a man, aged 37 years, gave a history of very severe arthritis affecting every joint, including the spine, the jaw, and the ribs, of 18 months' duration. He had had gonorrhœa two and a half years before any joint trouble appeared. On admission he was anæmic, the muscles were wasted, costal respiration was impossible, and movement of the jaw and neck was very limited. There was also a large amount of albumin in the urine with no sign of nephritis except œdema of the legs. He has now had over 40 baths, of from 170° to 250° F., lasting from one to two hours. The body-temperature rose regularly to from 100° to 102° during the bath, so that his temperature chart resembled that of tertian ague. His general condition improved very much after a few baths which he took with considerable relish. The mobility of the joints also improved a great deal up to a certain pitch and then it ceased. This improvement made him less helpless and more comfortable. He derived benefit also from massage applied after many of the later baths The albuminuria persisted. Dr. C. R. Box (whom I have to thank for permission to publish those facts which bear on the bath treatment of this case) tells me that there is no further improvement and that he relapses when treatment is discontinued.

CASE 5.—The patient, a female, aged 22 years, had had for six years pain and swelling in all the large joints in turn, but she now complained only of swelling and stiffness and constant pain in the small joints of the hands and in the right shoulder. Her illness had been of several months' duration. She had had for several months excellent outpatient treatment, but without benefit. A few radiant heat baths produced marked improvement in the mobility and lessened the pain. She has had now six weeks of bath treatment on alternate days (one hour at from 200° to 250° F.) and has had only three attacks of pain. Both epitrochlear glands, however, are still enlarged.

---

[1] This apparatus can now be obtained of the Boardman Electrical Patents Company, 10, Union court, Old Broad-street, E.C., price £3 It is supplied to medical men only. It is proposed to call it the "Electrothermogen."

CASE 6.—The patient was a querulous old woman, suffering from advanced rheumatoid arthritis, who after having two baths professed that the pain was much relieved. It had yielded to no other treatment.

CASE 7.—This was a very interesting case of what was to all appearances rheumatoid arthritis in the right hand and shoulder, following three weeks after being run over across the right chest and right forearm. The injury caused unconsciousness (15 minutes), fracture of the second and third costal cartilages, and paræsthesia in the middle and index fingers. It is now four months since the accident and there are marked stiffness and dry swelling and frequent pain in the joints of the right hand and in the right shoulder. There are also coarse creaking in the right shoulder and slight creaking in the knees. The x rays show no bony changes and there is no glandular enlargement. There is no glossy skin or other sign of trophic disturbance, except slight roughening of the upper half of the nails. Muscular wasting is present, with myotatic irritability. If this be a case of osteo-arthritis, as would at once be assumed in the absence of the history of nerve injury, it becomes the strongest piece of evidence which I have read of in favour of the neuropathic origin of osteo-arthritis. Under the radiant heat treatment the pain and mobility rapidly improved, but the "sticking-point" was soon reached and progress is now (after six weeks' treatment) very slow.

CASE 8.—In this case of pain, swelling, and stiffness of the small joints of both hands the patient is still under treatment. 13 baths have banished the severe pain and have vastly improved the mobility and usefulness of the hands. Only the hands and arms were treated, but a profuse general perspiration was always induced. Every other treatment had been tried without success and the Dowsing whole-body bath had proved too exhausting.

So far the treatment by this simple apparatus has only been applied to these eight cases of advanced and painful joint disease and the results show that in such cases it will succeed in relieving pain and stiffness when drugs fail, but that, like all other measures, it can in no sense cure this obstinate complaint. More favourable results would doubtless follow in gonorrhœal arthritis and in sprains where rapid recovery was important. My impression is that the light is beneficial as well as the heat, and one reason for this opinion is the transparency of human flesh and bone to these rays. This can be readily demonstrated by grasping an electric lamp with both hands in a dark room. I fancy, too, that *dry* blankets are helpful in raising the temperature of the chamber, and that they do so by condensing the vapour arising from the perspiration of the patient and thereby liberating the latent heat of this vapour. This effect can be shown experimentally by placing a clinical thermometer in the mouth surrounded by a few layers of dry flannel. The mercury will rise many degrees—e.g., 15°—above the real temperature of the patient, and this device may possibly be known to the professional malingerer.

I have not yet been able to use the apparatus for inducing perspiration in renal cases, but it would doubtless be more efficient, less troublesome, and less dangerous than the ordinary spirit-lamp arrangement, provided that an electrical supply were present in the ward or house. Nurses tell me that it is much less trouble.

The advantages claimed for this little apparatus are:—1. Small initial cost and trivial running cost. 2. Extreme portability and lightness. It is made of aluminium and will stow in a small handbag. 3. No smell. No risk from fire, which cannot be said of the ordinary bath used in cases of renal disease. 4. Temperature of the air raised to from 200° to 250° F.—a good deal higher than in an ordinary bath just referred to. 5. The current can be taken from the domestic electric light by taking out a lamp and replacing it by an adapter in two seconds. The amount of current used will not blow even a weak fuse. 6. Intense light as well as heat is produced, and the former can be proved to penetrate human flesh and bone and is probably of considerable sudorific and therapeutic power. 7. The one apparatus can be used indifferently for any part of the body, it being only necessary to arrange a cradle of suitable size. 8. The patient is treated in his own bedroom or ward without subsequent exposure to risk of chill.

In concluding, I have to thank Dr. Hector Mackenzie very sincerely for suggesting to me the problem of reducing the hot-air bath to its simplest terms, and for his subsequent kindness and help in placing his cases at St. Thomas's Hospital at my disposal. I must also thank Dr. G. F. Elliott, Dr. Frank Nicholson, and Dr. E. O. Daly for allowing me to publish their cases at the Hull Royal Infirmary.

Royal Infirmary, Hull.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

ST. GEORGE'S HOSPITAL.

THREE CASES OF FRACTURE-DISLOCATION OF THE SPINE TREATED BY LAMINECTOMY.

(Under the care of Mr. HERBERT W. ALLINGHAM.)

THE operation of laminectomy for fracture-dislocation of the spine must necessarily fail to relieve in a large proportion of cases, for the cord must be pressed on by the displaced bone to an extent sufficient to prevent the passage of nervous impulses, and yet the pressure must not have been sufficient to tear through the cord. Yet laminectomy is always justifiable in fracture-dislocation of the spinal column when paralysis of the body below the lesion is present. It is but rarely necessary to lay open the dura mater in these cases, though it adds but little to the danger of the operation if asepsis is preserved. For the notes of the cases we are indebted to Mr. P. Lockhart Mummery, house surgeon.

CASE 1.—A man, aged about 45 years, fell down an area and was admitted into the Chelsea Infirmary on Dec. 24th, 1900. He was quite conscious on admission and on examination it was found that he was completely paralysed below the shoulder girdle and that there was complete anæsthesia below that point; he could move his arms but could not extend his wrist or fingers; breathing was entirely diaphragmatic. The knee-jerks were absent; the plantar reflexes were present. No deformity of the cervical spine could be felt, but a good deal of bruising subsequently developed at the base of the neck behind.

On Jan. 9th, 1901, he was transferred to St. George's Hospital. As he was evidently suffering from injury to the spinal cord at a level somewhere between the fifth and sixth cervical vertebræ and as no improvement in his symptoms had occurred since the accident Mr. Allingham decided to perform laminectomy.

The operation was done on Jan. 11th. The patient was placed on his face on the operating-table with his head over the end and supported by an assistant; chloroform was administered. Mr. Allingham made a median incision and cut away the fourth, fifth, sixth, and seventh cervical spines (the operation was rendered difficult by the fatness of the patient's neck and the consequent depth of the wound). He then cut through the laminæ with Hoffman's bone forceps and exposed the dura mater. The fifth vertebra was found to be dislocated forwards and its laminæ were pressing on the cord posteriorly; the laminæ were therefore cut away and the cord was freed. The dura mater was then opened; the cord itself looked normal. A large drainage-tube was inserted and the wound was sewn up. The patient was then placed on a water-bed and his head and neck were steadied with sand-bags. 24 hours after the operation his abdomen became much distended and his breathing embarrassed from the pressure on his diaphragm. He also vomited several times. A long rectal tube was passed and a large amount of flatus was expressed from the abdomen through it by manual pressure, the abdomen being compressed only during expiration so as not to interfere with respiration. In this way the distension was rapidly relieved and after an injection of morphia he went to sleep for several hours and was much better next morning. On Jan. 15th the paralysis of the arms had partly improved and sensation had returned above the umbilicus; there was also some sensation over the front of both thighs. The wound was dressed and the tube was removed. A good deal of cerebro-spinal fluid had escaped. On the 17th his temperature at night rose to 103° F. and there was evidence of cystitis; his bladder was accordingly washed out twice daily and salol was administered by the mouth. On the 18th his breathing was difficult and there were signs of bronchitis in both lungs. He was accordingly turned over on to his left side and subsequently was always kept in that position, so as to leave his right lung free from secretion if possible, as he could not cough up his secretion at all. His temperature rose to 102° and varied between that and 103° till the 20th, when it dropped to normal. On the 20th diarrhœa set in which proved to be intractable. All beef-tea and fluid-diet were stopped and fluids were reduced to a minimum; astringents and opium, &c., were administered and everything that could be thought of was tried, but the diarrhœa continued and after lasting for some time proved fatal on Jan. 26th. On the 22nd he was able to move his legs very slightly and complained of twinges of pain in them. There was further slight improvement in the paralysis till death.

Necropsy.—At the post-mortem examination the cord was found to be normal except for some slight softening at the level of the injury. The intestines appeared to be quite normal and no ulceration or other lesion could be found to account for the diarrhœa. On examining the bladder there was evidence of some old cystitis chiefly confined to the neighbourhood of the trigone and a large abscess containing pus was found in his prostate. This abscess did not communicate with either the bladder or the rectum, though both were very carefully examined for such a communication. His other organs were normal except for some congestion of the lungs.

CASE 2.—A man, aged 30 years, was crushed in a lift accident on April 18th. On admission into St. George's Hospital there was marked irregularity of the eleventh dorsal spine with absolute paralysis and loss of sensation below that level. On the 19th, 24 hours after the accident, sensation had returned except in the soles of the feet. On the 20th, as no improvement had taken place in the paralysis, it was thought advisable not to wait any longer. Mr. Allingham performed laminectomy, gas and ether being administered. He made a median incision and removed the spines of the tenth, eleventh, and twelfth dorsal vertebræ and cut through the laminæ. On exposing the dura mater it was found to be torn and there was a large clot beneath it pressing upon the cord; this was removed, a drainage-tube was inserted, and the wound was sewn up. The patient rallied well from the operation. On the 22nd the drainage-tube was removed and the wound was found to be healing. Gradual improvement took place and the wound healed rapidly. On June 8th he had regained complete control over his sphincters, which had been previously absent, and could move his legs slightly. On the 27th all the paralysis had disappeared and he could walk with assistance, and on August 8th he was discharged from the hospital quite convalescent and shortly afterwards was able to resume his duties.

CASE 3.—A man, aged 56 years, was admitted into St. George's Hospital, having fallen down a flight of stairs. On admission there was complete paralysis of the lower limbs, abdomen, and thorax, respiration being carried on by the diaphragm alone; both hands and forearms were paralysed; the deltoids, however, were not paralysed. There was complete loss of sensation below the second rib. Priapism was present and there were no knee-jerks; the plantar reflex was well marked. No deformity of the spine could be felt. A diagnosis was made of fracture of the cervical vertebræ and pressure on the cord at about the level of the sixth cervical vertebra, and immediate laminectomy was decided on.

Anæsthesia was commenced with gas and ether and continued with chloroform, the patient being placed face down on the table. Mr. Allingham made a median incision from the fifth cervical to the second thoracic spine; the fifth cervical vertebra was found to be dislocated and pressing on the cord; the laminæ and spines of this and the sixth cervical vertebra were cut away and the dura mater was opened; the cord itself was much injected. The wound was closed and a drain was put in. The body temperature previously to operation was 101·5° F. About five hours afterwards it had risen to 108°. Cold sponging was tried with a view to diminish it but without effect, and in about an hour the man died, the temperature rising after death to 110°.

Necropsy.—At the post-mortem examination the second rib on the left side was found to be fractured as were the fifth and sixth cervical vertebræ. The cord in this region was quite free from pressure but was much softened. There were well-marked atheroma of the blood-vessels and a rather flabby heart. The lungs were much engorged with blood.

Remarks by Mr. MUMMERY.—In Case 1 the patient was a very stout and alcoholic individual and consequently was not at all a good subject to recover from such a serious injury. In spite of this, however, he lived for 33 days and at the time of his death, although only 15 days after the operation, there were already marked signs of improvement in the paralysis and anæsthesia. The diarrhœa, which undoubtedly was the cause of his death, appears to have been due to some atonic condition of the intestines, as no lesion could be found to account for it. Whether the abscess in his prostate was secondary to the cystitis or *vice versâ* there was nothing to show; it did not, however, appear to have resulted from the careless use of a catheter. The case is of some interest as it shows that the spinal cord is capable of recovering, to some extent at any rate, after having been subjected to pressure for a considerable time, in this case for over a fortnight.

Case 2 is chiefly of interest in showing what a long period of time is often necessary for the complete recovery of a damaged cord. The operation was performed on April 20th and recovery was not complete until June 27th.

Case 3 is a curious one, as the temperature rose to such a remarkable height and very well marked local softening of the cord was present though the patient only lived a few hours after the accident. The operation did not appear to hasten death in any way, as the temperature had commenced to rise already, and rose steadily until at 108° it proved fatal. It seems possible that the high temperature and softening were the result of a very acute myelitis.

These cases show the value of early operation in all cases of fracture-dislocation of the spine where there are symptoms of cord lesion. The operation itself is not a dangerous one and the patients seem to get over it very well. In the majority of the cases some lesion which can readily be dealt with is found, and the cord is able to be relieved of pressure by simply removing the laminæ of the affected vertebræ and those of the vertebræ above and below. A large incision greatly facilitates the operation. Laminectomy stands in the same relation to compression of the spinal cord as trephining does to compression of the brain, and the teaching of modern surgery is to trephine all cases of compression of the brain as soon as it can be localised. The same law seems to apply to compression of the spinal cord, and in the latter case there is the additional advantage that the localisation is generally quite easy. Even if nothing is found on exploring the dura mater little harm has been done and more patients will be saved by early operation than by leaving them alone. With regard to anæsthetics, there does not seem to be any serious contra-indication to chloroform, patients usually taking it well; ether is contra-indicated, as it is liable to cause some congestion of the bronchi, and the patient in a case of cervical injury is unable to cough up any secretions that may collect in his lungs.

CREWKERNE HOSPITAL.

A CASE OF COMPOUND FRACTURE OF THE PATELLA AND TRAUMATIC DISLOCATION OF THE KNEE.

(Under the care of Dr. J. H. LAMB.)

COMPOUND fractures and wounds of joints demonstrate as clearly as any other department of surgery the great benefit of antiseptic treatment. At one time a wound of the knee such as occurred in the following case would certainly have been followed by prolonged suppuration with destruction of the joint, even if pyæmia or septicæmia had not occurred, while with antiseptic treatment a moveable joint was obtained. The circumferential wiring of a fractured patella is certainly the simplest method and gives excellent results.

A man, aged 60 years, was admitted to the Crewkerne Hospital on June 22nd, 1900. The same afternoon, whilst at work with a scythe, he slipped and fell on it. When first seen the wound was wrapped up in old dirty cloths, and on these being removed the cut edges of the patella could be distinctly seen. Ether was administered and the wound was thoroughly examined. The scythe had cut the patella in two and opened into the synovial sac of the joint; the internal lateral ligament was divided for about half of its extent and the external lateral ligament was completely severed, so that only a small part of the internal ligament and the posterior ligament was left uninjured. The whole wound was filled with blood-clot. This was washed out with corrosive sublimate (1 in 2000) and the articular surfaces of the joint were found to be uninjured. The synovial membrane were first stitched and the joint was again well washed out with the lotion. The lateral ligaments were next sutured with a fine cat-gut suture and the rest of the wound was again douched with the lotion. No bone drills being obtainable the divided edges of the patella were drawn together by wire stitches passed from below upwards through the ligamentum patellæ and the tendon of the quadriceps extensor, so that the wire passed completely round the patella The wound was again washed and the skin and superficial fascia were drawn together by silkworm-gut. A dry boric dressing was applied. By the next day the dressings were soaked through by a bloody discharge. The temperature was 100° F. but the pulse was only 76, and as the dressings had dried the wound was left alone. Up to July 1st the temperature ranged from 99° to 101·4° (on June 25th), but as there was no corresponding increase in the pulse-rate the wound was left alone till July 3rd, when it was dressed and found to have healed by first intention. The stitches were removed and a dry boric dressing was applied. The patella was in good position and no movement at the cut surface could be obtained. On the 4th the wound was again dressed, the leg was put up in plaster-of-Paris, and the patient was discharged from the hospital. In three weeks he was re-admitted to the hospital, when the plaster was removed and the wire stitches were taken out. There was a slight amount of movement of the joint. By the end of August he could walk very well with a flexible knee-joint. On Sept. 16th he returned to work with a good moveable knee-joint.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Intestinal Intoxication due to Appendicitis.—Pharyngeal Pouch of Large Size Removed by Operation.

A MEETING of this society was held on May 14th, Dr. F. W. PAVY, the President, being in the chair.

Dr. SIDNEY MARTIN communicated a paper on a case of Intestinal Intoxication due to Appendicitis. The patient, a man, aged 50 years, under the care of Dr. C. D. B. Hale, was brought to Dr. Martin with symptoms pointing to intestinal intoxication. In the summer of 1899, on the voyage home from Norway, he was sea-sick and he suffered somewhat from looseness of the bowels. There was no indigestion, but there was gradual loss of appetite. The motions, although not very frequent, were never solid, and they became more and more offensive. There was never any slime or blood with the motions. Eight weeks after the illness commenced the most marked symptoms were pallor with cachexia, great emaciation, and flabby muscles. There were no signs of organic disease in any part of the body. The temperature was irregular. The intestinal evacuations were not very numerous, from one to three daily, but they were always liquid and extremely offensive. Several large lumps proved to be pieces of apricot which, on inquiry, were found to have been eaten eight weeks previously. Repeated examination failed to discover any cause of the intestinal decomposition. The treatment adopted at this stage was flushing the colon with solutions of boric acid. The wasting continued, the patient losing 11 pounds in 15 days, so that his condition had rapidly become desperate. He was now extremely weak and greatly emaciated. The deep inguinal glands of the right side were enlarged. At one examination of the abdomen a mass was felt in the right loin and it was decided to explore the abdomen. At the operation (December, 1899) it was found that the mass felt in the right loin was the kidney, which had become readily palpable owing to the great emaciation. The cæcum was thickened and the appendix was enlarged, both being elongated and thickened, while there were some calcareous glands between the ileum and the cæcum. The appendix, the two calcareous glands, and one other enlarged gland were removed An examination of the appendix showed enormous thickening of the coats. The contents were extremely fœtid, like the motions, and consisted of one or two fæcal concretions, as well as much liquid matter. Two small erosions were seen in the mucous membrane. The diseased appendix was considered as the origin of the patient's condition. After the operation the patient was in an extremely weakened condition and there were occasional slight rises of temperature due to suppuration round the stitches of the wound. Recovery, however, although gradual, ultimately became certain. In June, 1900, a small quantity of albumin was discovered in the urine with some casts, the specific gravity being 1017. At the end of July, the bowels were only occasionally loose and possessed no fœtor. The renal signs gradually disappeared, and 10 months after the operation the patient was completely restored to health. Commenting on the case, Dr. Martin remarked that disease of the appendix causing acute or subacute disease was usually associated with definite physical signs, but in the case which he had recorded there was severe illness due to chronic disease of the appendix in which the main symptom was the decomposition of the intestinal contents causing a profound general intoxication. In adults prolonged intestinal decomposition was usually associated with obstruction in one or other part of the colon or with chronic dysentery, and in this case these were regarded before the operation as the most likely causes, but the history of these was wanting in the case. The long retention (two months) in the intestinal tract of comparatively large pieces of apricot in a case in which there was continuous looseness of the bowels was an unusual circumstance worthy of note. The superficial lymphatic glands in the inguinal region and other parts were easily felt and on the right side, near Poupart's ligament, one deep inguinal gland more particularly was distinctly enlarged. This enlargement rapidly disappeared after the operation and it might probably be considered as part of the intoxication process There was in this case no bacterial infection as far as could be discovered; the walls of the thickened appendix showed no bacteria and there were none in the microscopic sections of the lymphatic gland which was removed from the abdomen —Mr. RICKMAN J. GODLEE, referring to the surgical aspect of the case, remarked that the abdominal pain was referred to a point distant from the real position of the appendix. Enlargement of the inguinal glands in association with appendicitis, such as occurred here, was a new fact in his experience.—Mr CHARTERS SYMONDS questioned whether the interpretation put upon the case by Dr. Martin was the correct one. Would not the facts be more correctly explained on the supposition that the patient was suffering from ulcerative colitis in which the appendix participated? The operation did not seem indispensable to the recovery which was perhaps the natural course of the disease. The four symptoms—looseness of the bowels, odour of the fæces, irregular temperature, and profound emaciation—formed a clinical picture of ulcerative colitis, and he was reminded of a patient suffering from that disease who had recovered from five successive attacks, in each of which he had presented all these four symptoms. On the other hand, it was doubtful if any form of appendicitis gave rise to a set of symptoms like those in Dr. Martin's case. Acute appendicitis [illegible] generalised sepsis, and he refer [illegible] over, it appeared to him [illegible] free communication with the cæcum could in any circumstances produce a series of symptoms such as those which had been described —Mr. JOHN H. MORGAN had known the patient in early life; he had been a great athlete, and had certainly not had tuberculous or other disease in youth. He was staying with Mr. Morgan shortly before his illness and had had no looseness of the bowels prior to Nov. 7th, 1899. The question as to what was the cause of the enlargement of the glands was an interesting one Probably this was due to the collection of decomposing matter in the appendix, which at the same time caused the general infection There were several very unusual features about the case.—

Dr. **C. D. B. Hale** remarked that the condition of the appendix was so extremely fœtid that it had to be immediately removed from the room.—Dr. **Martin**, in reply, remarked that if Mr. Symonds had seen the patient before and after the operation he would have had no doubt about causal relationship of the latter with the recovery. There was not quite a free communication between the appendix and the cæcum. He regarded the appendix as a sort of test-tube which inoculated the rest of the large intestine. The smell was quite peculiar and it was identical in the contents of the appendix and in those of the cæcum. This case was not like any case of ulcerative colitis which he (Dr. Martin) had ever seen.

Mr. **Rickman J. Godlee** and Mr. **T. R. H. Bucknall** communicated a paper entitled "A Pharyngeal Pouch of Large Size Removed by Operation" which is published *in extenso* at p. 1387 of our present issue.—Sir **Felix Semon** complimented the authors and remarked that perhaps the most important part of the paper was that referring to the unity of the several cystic and other malformations in the front of the neck, a fact which was first recognised by Kostanecki in 1890. He had met with two cases of this kind. One was that of a young man who came to him with a swelling at the side of the neck between the hyoid bone and the lower border of the cricoid cartilage, an egg-shaped moveable tumour which gave distinct fluctuation and which he regarded therefore as an ordinary cyst. He evacuated some material resembling ordinary pus, but the cyst filled again in a week. Again it was incised, caseous débris being evacuated, and again it refilled. Every conceivable method of treatment was tried, but the sinus never healed satisfactorily. The other case was that of an uncomplicated fistula with slight mucous discharge at the side of the neck which ended blindly close to the tonsil. Taught by past experience he took steps for the dissection and removal of the entire tract and the patient recovered. These cases should never be probed or interfered with unless they were prepared to deal thoroughly with the case in order to extirpate the disease.—Mr. **Arthur Barker** referred to a case which had many features in common with that related by Mr. Godlee, but it was on the other side of the neck. It differed, however. He regarded it at first as a dermoid cyst, because, in the first place, the right auricle was badly developed, and, secondly, there was a tuft of hair in a depression below the neck, and the tumour varied in size from time to time. Thirdly, it had a soft, doughy feeling. The patient felt very ill at the time, possibly indicating auto-infection. This tumour he (Mr. Barker) removed. In front of the tumour was the sterno-mastoid and behind it were the carotid vessels, to which it was adherent by inflammatory adhesions. The tumour could be traced upwards to close beneath the tonsil from near the episternal notch below. There was no doubt a narrow opening into the pharynx. The chief point of interest was the diagnosis of this case from a dermoid cyst. After removal the patient's general health greatly improved. —Mr. **Godlee**, in reply, expressed surprise that Sir Felix Semon had not met with more of these cases, because he (Mr. Godlee) regarded them as fairly common in surgical practice. He had seen a good many of these fistulæ which opened mostly at the top of the sternum beside the sterno-mastoid. In the case under discussion he began the operation under the idea that it was of œsophageal origin, partly because of the history of injury.

MEDICAL SOCIETY OF LONDON.

A meeting of this society was held on May 13th, Mr. **John H. Morgan**, the President, being in the chair. The proceedings will be reported at length next week.

The annual general meeting of the society was held before the ordinary meeting, and as the result of the ballot the following gentlemen, as nominated by the council, were elected to serve in the respective offices during the ensuing year:—President: Dr. William Allchin. Vice-Presidents: Dr. Isambard Owen, Sir W. Mitchell Banks, Dr. Thomas T. Whipham, and Mr. Charles A. Ballance. Treasurer: Mr. David H. Goodsall. Librarian: Dr. Sidney Martin. Honorary secretaries: Dr. Arthur F. Voelcker and Mr. Jonathan Hutchinson, jun. Honorary secretary for foreign correspondence: Dr. William Ewart. Council: Mr. Howard Barrett, Mr. J. Bland-Sutton, Dr. Henry A. Caley, Dr. James Calvert, Dr. J. Walter Carr, Dr. William R. Dakin, Mr. Frederic Durham, Dr. Robert A. Gibbons, Dr. Wilfred J. Hadley, Mr. Walter H. Jessop, Mr. John H. Morgan, Mr. C. W. Mansell Moullin, Dr. Frederick S. Palmer, Dr. Sidney P. Phillips, Dr. H. Campbell Pope, Mr. George R. Turner, Mr. Frederick C. Wallis, Mr. Herbert F. Waterhouse, Dr. Samuel West, and Mr. Edwin F. White.

CLINICAL SOCIETY OF LONDON.

Cancer of the Stomach with Unusual Vascular and Blood Conditions.—Perforating Gastric Ulcer causing Subdiaphragmatic Abscess bursting into the Lung.—Cases illustrating the Value of Laparotomy in Ascites.

A meeting of this society was held on May 10th, Sir **R. Douglas Powell**, Bart., the President, being in the chair.

Dr. **W. Pasteur** and Dr. **C. Price Jones** communicated a paper on a case of Cancer of the Stomach with Unusual Vascular and Blood Conditions. The patient, a metal chaser, aged 61 years, had suffered from gastric trouble for five years. On admission he was very weak and profoundly anæmic and was much emaciated. A tumour was felt near the umbilicus which moved with respiration. The symptoms pointed to cancer of the stomach. On the sixth day after admission the nose became dusky and two days later had acquired a deep purple colour with sharply defined margin which persisted till death. At the same time the toes of both feet became blue-black in colour and insensitive. No pulsation was perceptible in the posterior tibial and dorsal arteries. A few small bullæ containing clear sterile fluid formed on the toes of the right foot. An examination of the blood made on the same day showed red cells, 1,460,000, and white cells, 24,000. Analysis of the white cells gave: hyaline mononuclear cells, 44·59 per cent.; granular polynuclear cells, 54·35 per cent.; granular mononuclear cells, 1·02 per cent.; and numerous normoblasts, megaloblasts, megalocytes, microcytes, and poikilocytes. Death took place 12 days after admission. The necropsy revealed a cancerous growth infiltrating the wall of the stomach near the lesser curvature and invading the adjacent structures The right posterior tibial artery was patent and appeared healthy. The capillary stasis in the nose and feet was indistinguishable from the condition often met with in Raynaud's disease. The state of the blood, though resembling that of pernicious anæmia in several respects, differed from it in others, notably in the increased number of white cells and the preponderance of normoblasts over megaloblasts. Various observers had recorded states of the blood somewhat resembling that of pernicious anæmia in cases of malignant disease, but the results so far had not established the existence of any special diagnostic characters —The **President** remarked that the case was one of considerable interest as throwing some light on those cases, which were not uncommon, which were supposed to be pernicious anæmia but which turned out to be cancer and very often cancer of the stomach. He asked if the ears were involved in the capillary stasis.—Dr. **William Hunter** wished to remark on the importance of the distinctions between cancer and pernicious anæmia. He thought that the confusion of these two diseases was largely artificial. The resemblances between these diseases, the sallowness and pallor, were superficial, but the blood changes were absolutely distinctive Moreover, post mortem, pernicious anæmia was readily identified by the excess of iron in the liver. This did not occur in cancer. In Dr. Pasteur's case the amount of anæmia was exceptional and the leucocytosis only reached 28 per cent. In cancer the leucocytes often reached 70 or 80 per cent In pernicious anæmia it was quite unusual to find any excess of white corpuscles. He regarded the case before the society as quite exceptional. The association of these blood changes (which did not correspond with those of pernicious anæmia) with gastric cancer was, he believed, accidental.—Dr. **Batty Shaw** asked if there was any excess of urobilin in the urine. He referred to a case under his care of secondary anæmia which had lately developed numbness and tingling of both hands and signs of Raynaud's disease. He asked if the knee-jerks were altered.—Dr. **Pasteur**, in reply, regretted that the case was unavoidably imperfect in many respects. The ears and the hands were not involved in the capillary stasis. There were no obvious changes in the urine. The knee jerks were, he believed, normal.

Dr. **Norman Dalton** read a paper on a case of Perforating Gastric Ulcer causing a Subdiaphragmatic Abscess which burst through the diaphragm into the lung. The patient was a woman, aged 25 years, who was admitted into King's College Hospital on Feb. 20th, 1901. Her illness began on Feb. 12th with an aching pain below the cardiac area. On the 14th there was retching but no "vomiting" and no hæmatemesis. There was no pain on taking food. There was slight improvement for a day or two, but then the pain in the left side returned with great severity and was accompanied by great dyspnœa. On admission the temperature was 102 6° and all the signs of fluid at the left base were present. In particular the heart was displaced to the right. It was most noteworthy that although the dyspnœa was very severe the patient lay on the right side. 15 ounces of "clear" fluid were at once drawn from the left pleura. After this tapping tubular breathing was heard at the left base where previously no breath sounds had been audible. There was some relief after the tapping, but on the 22nd there was a severe rigor, and from that day until her death, on March 2nd, there were high remittent fever with several rigors and all the appearances of pyæmia. The physical signs, however, showed that there was no return of the fluid, because (1) the heart was now drawn over to the left side, and (2) a large area between the left nipple and the margin of the ribs as far back as the axilla gave, on percussion, a tympanitic note like that of the stomach. There were no breath sounds over the tympanitic area. It was thought that the lung had been unable to expand and consequently that the heart had come over to the left and the diaphragm and stomach had ascended. As a matter of fact, the tympanitic area was the cavity between the stomach and the diaphragm, which was due to the perforation of the gastric ulcer and the contents of which pushed up the heart and compressed the lung. While she was in the hospital there was no symptom whatever to draw attention to the stomach. Nourishment was taken freely and did not excite pain. Neither was there any cough or expectoration until the morning of March 2nd. The first sputum had a smell, remarkably like lactic acid. Later, however, it became gangrenous in odour and death occurred that night. At the necropsy an ulcer of about the size and shape of an almond was found in the anterior wall of the stomach close to the lesser curvature and about two inches from the cardia It had perforated, but the hole was now closed by the under surface of the liver. From this point, however, a short sinus between the liver and the stomach passed upwards and to the left and opened into a large cavity between the left half of the diaphragm, the liver, the stomach, and the spleen. The cavity was full of decomposing materials but was quite shut off by good adhesions from the general peritoneal cavity and there was no general peritonitis. Above this cavity there was a hole in the diaphragm which led into a large cavity in the lower lobe of the left lung, which was also filled with decomposing materials. The pleura was quite obliterated around the hole in the diaphragm, which would account for the fluid which was drawn off not being purulent. The lower part of the left pleura (from which the fluid had been withdrawn) was also now obliterated by adhesions. On reviewing the symptoms after the post-mortem examination it was evident that the case followed fairly well the usual course of events which occurred in cases of subphrenic abscess, and Dr. Dalton could only hope that this full report might be of use to others. He would emphasise the following points which have been mentioned by writers on this affection—viz., that these cases might occur without any symptoms to draw the attention to the stomach; that the fluid in the pleura, although close to a foul abscess, might be quite clear; and that the lung symptoms might obscure the real condition. He would also draw attention to the great pain in this case, especially when the affected side was pressed against. The absence of cough could not help the diagnosis, because pleurisy was really present and should have excited its own peculiar cough. The absence of sputum was not remarkable because there was no cough, but it was of extreme importance to note that the first sputum obtained smelt of sour milk, but that this smell was rapidly succeeded by an odour which was wholly gangrenous. As regards mistaking the tympanitic area for the percussion note produced by a stomach which was drawn upwards by non-expansion of the lung, he would plead that the left border of this tympanitic area was curved in a way that suggested the greater curvature of the stomach and that the heart was displaced to the left as well as upwards.—Dr. LEE DICKINSON regarded such cases of subdiaphragmatic abscess bursting into the lung as extremely rare. From the point of view of diagnosis this case was one of great interest.—Mr. LEONARD BIDWELL referred to a case which he had seen, of a man, aged 33 years, without any stomach symptoms. The case was regarded as one of empyema which had burst into the lung and he resected two ribs and opened an abscess in the lung. Shortly afterwards the patient ate some figs and the seeds were found in the dressings. Methylene blue was administered and this also was found in the dressings. Another rib was resected and the patient ultimately made a good recovery. Another case of subdiaphragmatic abscess under his care was that of a woman, aged 66 years. She had presented stomach symptoms, but her case was also diagnosed as one of empyema by means of the hypodermic needle. Several ribs were resected and offensive pus was evacuated, but she did not get well—every time she took solid food the temperature went up. An exploratory operation was performed and an opening through the diaphragm was discovered. Free drainage was established and a good recovery resulted.—Dr. FRANCIS HAWKINS (Reading) referred to the case of a woman, aged 27 years, who was admitted in an emaciated condition into the Royal Berkshire Hospital as a case of empyema in December, 1895. Four months previously she had been under treatment for gastric symptoms and 14 days previously had complained of pain in the side. 20 ounces of almost clear fluid were drawn off from the left pleura, but the patient did not improve. Ultimately there were physical signs which with the history suggested the possibility of a subphrenic abscess, but before any action could be taken the patient became suddenly worse and died. The necropsy revealed a subphrenic abscess containing about six ounces of pus between the left lobe of the liver, stomach, and spleen. On the posterior wall of the stomach was an ulcer which had perforated. The base of the left lung was adherent to the diaphragm and contained a small abscess communicating with that below the diaphragm. Dr Hawkins also referred to another case of subphrenic abscess which perforated into the pericardium. He agreed with a former speaker as to the latency of symptoms in some cases of gastric ulcer, mentioning two such instances in which perforation ultimately occurred. Both cases were operated on and recovered.—Dr. PASTEUR asked how Dr. Dalton explained the very quick change in the position of the apex-beat. It was too rapid to be due to adhesions. In his experience a tympanitic area over a previously dull area in any part of the chest was extremely suggestive of trouble from below.—Dr. C. R. BOX asked whether the ulcer was still active in Dr. Dalton's case or was the abscess due to the giving way of adhesions? What was the relation of the secondary ulcers to the first? were they of an infective nature?—Dr. DALTON replied that the ulcer was clearly an old one and surrounded by adhesions to the liver. After the perforation the stomach was shut off from the pleura by adhesions. He had thought that multiple ulcers indicated multiple embolism, not infection.

Mr. LEONARD BIDWELL read a paper on Some Cases illustrating the Value of Laparotomy in Ascites. He referred to three cases, in the first one of which the ascites had been due to cirrhosis of the liver; the liver and the omentum were stitched to the abdominal parietes after evacuating the fluid. The patient recovered and had no return of ascites; she remained well for nearly six months when she died suddenly from hæmatemesis brought on by alcoholic excess. In the second case, that of a child, aged nine years, the ascites had been preceded and it was accompanied by albuminuria and abdominal pain. There was also general anasarca. The lad had been tapped 10 times and the fluid reappeared very rapidly. He was now quite well but for a trace of albumin and had had no further ascites. In the third case, that also of a child, aged nine years, the ascites was due to cardiac disease and there was also general anasarca, the liver being greatly enlarged. In this case, too, there was no fresh development of ascites and the child was able to get about, but died from syncope shortly after returning home. The technique of the operation was described, and Mr. Bidwell expressed himself as rather opposed to the employment of drainage in the operation, since this made it very difficult to prevent septic peritonitis, a complication which in a patient with cirrhosis was almost certainly fatal. Several cases had been lost in this way, and he himself lost his first case about four years ago in a similar way. He referred to a series of cases of operation recently collected by Pachard and Lelanto. They had tabulated 22 cases, of which five died within 14 days and nine were cured; adding two more recent cases and his own five cases, the total of 29 recorded cases was attained; of these, eight died within 14 days of the operation, five other cases died within nine months, five did not improve, two improved, and 10 were cured. He thought that some selection should be made of the cases, the most suitable being those in which the liver was still enlarged. A small contracted liver was, in his opinion, a contra-indication to operation. He did not think that renal or cardiac disease was any contra-indication to operation.—The PRESIDENT suggested that it would be useful to classify these cases according as they were cardiac, hepatic, or, as in some of the author's successful cases, of a complicated nature. He congratulated Mr. Bidwell on his excellent results.—Dr. ALEXANDER MORISON remarked that it was possible to avoid laparotomy in a large proportion of these cases by adopting other procedures. His subsequent experience had confirmed his previous observations. In cardiac cases it was a question whether obliteration of the peritoneal cavity was an unmixed advantage. He referred to a case of cirrhotic ascites in a man who was ultimately cured by having the abdomen firmly strapped by a many-tailed bandage. A cardiac case treated similarly had also been cured. One of the most remarkable of his cases was that of a man who presented a cachexia suggestive of malignant disease who had made a complete recovery under the strapping method. Encouraged by these results he had recently applied the same treatment to cases of tuberculous peritonitis with promising results. The peritoneum might be regarded as part of the lymphatic system, and strapping expressed the fluid from the peritoneum into its proper channels. The principle of aspiration within the thorax was also brought into operation. Tapping and strapping were, he thought, much preferable to laparotomy and scrubbing the peritoneum —Dr. JOHN FAWCETT related an unsuccessful case of laparotomy for ascites. The patient was admitted to hospital in January last with some fluid in the abdomen which was attributed to cirrhosis After trying medicinal treatment he asked Mr. A. D. Fripp to perform laparotomy, with scraping and suture of the liver to the abdominal wall, and the patient died five days later. Previously he had been in favour of this treatment, but in future he would hesitate to recommend it.—Dr. DALTON referred to a case brought forward by him earlier in the session. He thought that the operation was practically unattended with risk, but there might be risks afterwards. There must be, for instance, a tendency to hæmatemesis after obliteration of the peritoneal cavity, or, as was suggested by Dr. H. D. Rolleston, there was a risk of poisoning by admixture of the portal blood with the general circulation. Neither of these risks presented themselves in his case, but the third, hernia of the abdominal wound, had proved fatal five years after the operation —Mr. BIDWELL, in reply, protested that undue weight was attached to the sequel in condemning laparotomy. If a patient died within a month of laparotomy it was set down to the operation, while if the patient died within a month after tapping it was attributed to the disease. He pointed out, too, that some adhesion took place after tapping, and after repeated tapping no doubt a certain number of adhesions were set up, thus assisting in bringing about a cure in the same way as laparotomy.

BRITISH GYNÆCOLOGICAL SOCIETY.

Adjourned Discussion on the Clinical and Pathological Consequences of Retroversion of the Uterus, their Preventive, Palliative, and Radical Treatment.—Posterior Vaginal Cœliotomy in Operations for Pelvic Disease.

A MEETING of this society was held on May 9th, Dr. J. A. MANSELL MOULLIN, the President, being in the chair.

Dr. HEYWOOD SMITH in continuing the discussion on Dr. H. Macnaughton-Jones's paper on the Clinical and Pathological Consequences of Retroversion of the Uterus, their Preventive, Palliative, and Radical Treatment, said that he thought that metritis and parametritis were more frequently the effect than the cause of misplacement. It was curious that five out of seven speakers had advocated the use of the stem. The dangers of the sound were sometimes exaggerated. Where there were no adhesions it might be used to replace the uterus, provided it were passed with gentleness, in the exact axis of the organ, and that reposition were assisted by the finger behind the uterus. He objected to the restriction of the word "radical" to cure by operation; by patience and quietness retroversion could be radically cured. Where poverty, however, rendered work essential operative treatment gave the best and quickest relief. He had been the first to perform a deliberate ventro-fixation in England.

Dr. J. J. MACAN questioned the propriety of employing the sound for purposes of reposition. Any uterus which could be safely thus replaced could be replaced bimanually by varying combinations of abdominal, vaginal, and rectal palpation. He asked Dr. W. Alexander to express an opinion upon the advisability of drawing the round ligaments out in their original direction when performing the Alexander operation; it was a point upon which considerable stress was laid in continental literature.

Dr. R. T. SMITH referred to the correctness of Hewitt's observations as to the association of neurotic conditions and still more of persistent vomiting with uterine displacement. In debilitated patients there were two conditions which conduced to retroflexions: (1) loss of the normal curvature of the spine, and (2) softness with consequent flexibility of the uterine tissue. Rest and removal of the primary cause were frequently attended by cure of the displacement. Prolapse of the ovaries sometimes resulted from enlargement and displacement of the uterus. If the uterine condition were treated the ovarian trouble disappeared. While approving of Alexander's operation, in cases demanding operative treatment he himself performed ventro-fixation.

Dr. H. SNOW asked Dr. Alexander whether he ever experienced any difficulty in detecting the round ligaments. Referring to the use of a support he said that in many cases it should be used rather with a view to rendering the vagina taut than to keeping the uterus in any position or at any particular angle.

Dr. F. A. PURCELL believed that undue prominence of the promontory of the sacrum contributed to retroflexion. In virgins it was not always possible to insert a pessary.

Dr. P. L. HEBERT said that in the majority of cases the sphincter formed the only obstacle; yet there were cases in which the vagina was cone-shaped, and in these, whether children had been borne or not, a pessary was with difficulty retained.

Dr. BENJAFIELD said that he had listened with great interest to the discussion; but it was frequently difficult to obtain admittance for such cases into hospital, yet the only practical cure for patients in a poor neighbourhood, such as that in which he practised, was operation. To advise the majority of patients to rest and to use douches was utterly impracticable.

Dr. R. H HODGSON said that frequent reference had been made to the condition of the bowel. What portion of the bowel had been referred to? He failed to see how retroflexion could be attributable to distension of the rectum.

Dr. ALEXANDER, in reply to questions addressed to him, said that he attached no importance to the direction in which the ligaments were drawn out. The secret of finding them was to cut down upon the external oblique, which was a distinct glistening structure, and then seek the extrusion of the external abdominal ring. Except where abnormalities existed the ligaments were always there but in about 1 per cent. of cases were too thin or too brittle to pull out. An apparently delicate ligament, however, on being pulled a little way out of the canal proved thick and strong. He did not operate upon very old people in whom the ligaments were specially liable to be delicate.

The PRESIDENT would classify backward displacements according to whether they were reducible or irreducible Etiologically, pathologically, clinically, and as regards treatment they would lend themselves readily to that division The division into retroversion and retroflexion was devoid of practical value. With regard to preventive treatment, the rules laid down by the various speakers as to the avoidance of strain at the menstrual period, examination and replacement of the womb after miscarriage or labour, and repair of the perineum or cervix if lacerated would meet with general acceptance. He doubted if the very temporary use of stems sanctioned by those favouring their employment could possibly be of permanent benefit, while the risks attending their use were admitted by all. The discussion had turned to a great extent upon the relative merits of ventro-fixation and Alexander's operation. The latter required skill and practice, while the former was devoid of any special difficulties and therefore evidence in its favour would be forthcoming from many quarters. The fundus was seldom bound down unless the uterine appendages were the seat of chronic inflammatory mischief and he regarded the position of the uterus as of secondary importance when the primary trouble had been removed.

Dr. MACNAUGHTON-JONES, in replying, said that each time he had referred to the bowel he had specified the overloaded rectum alone as a participating cause of the retroversion. He considered a stem pessary to be both unscientific and dangerous and the remarks of some of those who advocated its use had only tended to show that it was so. Lawson Tait was quite right in urging the comparatively rare necessity for the employment of the sound, either in diagnosis or as a repositor. As to a pessary, each should be adapted according to the anatomical peculiarities of the parts—the vagina and uterus. Dr. Macnaughton-Jones also dwelt on the importance of prophylaxis which prevented the necessity for either pessary or operation. He reminded the Fellows of the propositions which he had made with regard to the differentiation of those cases in which mobility and reducibility indicated either expectant or operative treatment, even when there were associated adnexal conditions. The cases demanding colpotomy without fixation were distinct. The vital points agitating gynæcologists with regard to operation, once any method was determined upon, were: (1) that method most suitable to the mobile and reducible uterus during and after the child-bearing period; (2) that appropriate to retroflexion with adnexal complications and adhesions; and (3) the bearing of the method on child-bearing and the consequences which followed to the parturient woman during labour. Abroad either Alexander's or the Alexander-Adams operation, with its various modifications, extra-peritoneal or intra-peritoneal, was performed by such well-known gynæcologists as Doléris, Cohn, Küstner, Kronig, Veit, Karl Peters, Delagénière, Bamberger, Stocker, Füth, Rumpf, Kocher, Doyen, and others; in America, by quite a number of surgeons, including Goldspohn, Edebohls, Mundé, Parker, Newman, and Kellog; while Lapthorne Smith of Montreal had performed a very large number of operations by this method. Taking the records of 1141 operations, the particulars of which Dr. Macnaughton-Jones quoted, there had been but two deaths. The plan of looping intra-peritoneally the round ligament, as advocated by Delagénière, Mann, Jacobs, and many others, or the fixing of the loop into that which tied off the ovary and tube if these be removed, had not been referred to. Up to the end of 1896 Martin had performed 400 vaginal fixations with only four deaths. Vineberg's operation of vaginal fixation of the broad and round ligaments had not in that operator's hands been followed by any death. Howard Kelly in his utero-suspension had not more than 1 per cent. of failures. Fixation of the broad and round ligaments to the parietal peritoneum was performed by some operators. Reviewing the statistics as published by a number of operators up to the present year it would appear that the choice lay mainly between three procedures, or the modifications of these, the Alexander-Adams operation, ventro-fixation, and Kelly's utero-suspension. It was clear that Alexander's operation could not be the simple procedure that some represented it from the modifications of it which were forced by necessity upon the most expert operators. Finally, the age of the patient, the complications of the displacement, and the operator's views with regard to the influence of the special operative interference on pregnancy and labour were the points that would determine the selection of any operation.

Dr. ALEXANDER read a paper on Posterior Vaginal Cœliotomy in operations for Pelvic Disease. During the preceding two years he had performed 94 posterior vaginal cœliotomies for various diseases of the pelvis, exclusive of such conditions as cancer, uterine fibroids, or other diseases where Douglas's pouch had been opened as a small part of a more extensive operation. As showing that [illegible] specially favoured operation of [illegible] rformed in all 1567 operations [illegible] these included 204 cœliotomies [illegible] een adopted. He had become [illegible] h the ease and shorter duration [illegible] the more rapid recovery of the patient. He lost but two cases, notwithstanding that he had operated for such conditions as hydrosalpinx, pelvic cellulitis, pyosalpinx (14 cases), hæmatocele, fibroid ovaries, peri-rectal abscess, ovarian cysts, dermoid cysts of the ovary, cystic ovaries, abscess of the ovary, &c. One of the deaths was due to pleuro-pneumonia. The second occurred in a case of abscess of the right ovary, in which, a great part of the organ being healthy, he was tempted to save it. In all similar previous cases he had removed the suppurating moveable structure. The ligature was the best method of treating the stump, but he generally employed forcipressure in this operation.

West London Medico-Chirurgical Society.—A meeting of this society was held on May 3rd, Dr. F. F. Schacht, the President, being in the chair.—The minutes of the last meeting were read and confirmed.—Dr. William Hunter read a paper on the Infective Nature and Septic Origin of Pernicious Anæmia, the paper being illustrated by a series of beautiful lantern slides. Dr. Hunter said that pernicious anæmia had hitherto been regarded as a mysterious disease and that it occurred without any discoverable cause. It had been taught that the chief factors accounting for its appearance were insufficient nutrition, unhealthy surroundings, hæmorrhages, and wasting discharges; that pernicious anæmia, in short, was a provisional shelter for a multitude of cases of possibly variable origin. The symptoms were formerly regarded as in nowise distinctive, but simply those arising from the anæmia, and, further, no morbid state or anatomical condition could be shown to be peculiar to this disease. Dr. Hunter had investigated this disease closely for some 15 years and had arrived at certain definite conclusions which were as follows. 1. As regards its nature the disease was not merely a specialised form of anæmia, but it was a definite and well characterised special infective disease localised to the mucosa of the alimentary canal, and one in which sepsis, both oral and gastric, appeared to play an essential and important part. It was accompanied by definite infective lesions of the mucosa, difficult to discover post mortem, but characterised when observed during life in the mucosa of the tongue as a glossitis. This was not the result of the anæmia and was very persistent, coming and going when once established in a most remarkable manner and independently of any obvious cause. This unhealthy condition of the mucosa was due in the first instance to long-standing oral and gastric sepsis the result of suppurating and necrosed teeth and this condition permitted a special infection to occur. 2. The typical mode of development was as follows: a history of oral, gastric, or intestinal trouble extending over many years without any anæmia, more or less suddenly followed by an anæmia out of all proportion to the severity of the symptoms and denoting the supervention of a new factor—viz., increased hæmolysis dependent upon a new and special infection of the alimentary canal. On inquiry it would generally be elicited that at or about the commencement of the anæmia the patient suffered from sores or lesions of the tongue. Experience lent no support to the view that ordinary anæmia-producing factors, if only severe enough, could give rise to this form of anæmia, and cases of the kind could be successfully excluded, not only during life, but still more easily after death, by the absence of the clinical features and anatomical changes which were found to characterise the disease. 3. Anæmia was only one of the symptoms of this disease and there were at least three other groups of symptoms—viz., hæmolytic, oral and gastric, and intestinal and toxic symptoms, these being caused by the infection which lay at the root of the disease, and being more or less pronounced in every case of pernicious anæmia. They had one factor in common—viz., their periodicity, variations in the severity of the symptoms being common from week to week corresponding with the activity of the infective process. By these symptoms the disease could be diagnosed with certainty during life and after death by the no less characteristic pigmentary changes in the liver. With regard to treatment strict antiseptic treatment both of the mouth and of the gastro-intestinal tract must be repeatedly carried out. Arsenic and iron supplemented in suitable cases by anti-streptococcic serum injections were found to be very useful.—The President had listened to the paper with great pleasure. It had been worked out with great care and was full of interesting points.—Dr. Herbert Snow thought that this was one of the most lucid papers that had ever been read before the society, but many of the conclusions arrived at were open to discussion. For instance, if the septic infection described were primarily due to carious teeth, how was it that while such a condition was so common pernicious anæmia was so rare? What was the pathogenic organism concerned? What were the tongue lesions like? What was the percentage of cases curable? A large number of cases supposed to be due to pernicious anæmia had been eventually proved to be due to tape-worm or to cancer, especially of the stomach.—Dr. Hunter, in reply, referred to his book and to other communications which he had written on this subject to answer many of the questions. He emphasised the point that sepsis alone was not the cause of the disease but the channel and basis by which the specific organism entered.—Dr. Stanley Melville read a description of 16 cases of Ulcerative Stomatitis occurring in his practice at the same time, all presenting more or less the same characteristic features—viz., local conditions, marked constitutional disturbance, moderately high fever, and subsequent severe prostration. The occurrence of several cases in the same house was suggestive of some epidemic origin. In most of the cases the gums were swollen and bleeding, small ulcers formed in the mouth and spread rapidly, vomiting with abdominal pain then set in, accompanied by great wasting and prostration. The submaxillary glands were swollen and tender and a petechial rash appeared on the arms. Treatment consisted of antiseptics, stimulants, ammonia, and bark. The nature of the infection was obscure. Microscopical examination revealed nothing. The milk-supply was suspected but was found not to be the vehicle of infection.—Dr. Charles Buttar read notes of a case of Pneumomycosis. The patient who had returned home from India was a stout woman, aged 52 years. She had suffered from palpitation and shortness of breath for some time and had the usual symptoms of emphysema of the lungs. In January she caught cold and was much troubled with shortness of breath and cough, the symptoms being worse at night. The tips of the fingers were slightly blue and the tongue was coated with thick fur. Little was to be heard in the lungs with the exception of a few moist sounds at the bases. Pains were felt in the back and in the chest. Expectoration was free, consisting of clear mucus, a little pus, and many black specks. There was slight œdema of the legs. The temperature was raised to between 98° and 100° F. Soon after the patient complained of sore-throat and the palate became red and inflamed and covered with aphthous patches, the sputum becoming very free. As she had been ill for four weeks the sputum was examined and was found to be free from tubercle bacilli but it contained enormous quantities of oidium albicans with some streptococci. The patient gradually improved and eventually recovered. There was little doubt that she was suffering from emphysema and bronchitis complicated by the presence of the oidium albicans which contributed to keeping up the trouble, but the question as to whether the presence of the fungus was primary or secondary was one which was open to doubt.

North of England Obstetrical and Gynæcological Society.—A meeting of this society was held at Manchester on April 19th, Dr. T. B. Grimsdale, the President, being in the chair.—Mr. Stanmore Bishop (Manchester) showed three specimens of Uterine Fibro-Myomata removed by abdominal hysterectomy. The first was from a multipara, aged 49 years, in whom there had been a rapid increase of the growth and symptoms during the recent few months The tumour was removed by Baer's operation. Although the uterus was divided at the level of the internal os no trace of the right Fallopian tube was seen in the specimen. It was apparently a fibroid occurring in an irregularly-developed uterus. The patient recovered well. The second specimen was from a married woman, aged 55 years. The symptoms had been present for 18 years and had rendered the patient a complete invalid. The tumour was very large, multiple, and adherent. One subserous pedunculated mass was calcified and a submucous growth had become necrotic, causing foul discharge. Total removal by Doyen's method was performed. Recovery was retarded by the formation of an abscess in the left iliac region. This was opened and the subsequent progress was satisfactory and recovery was complete. The third specimen was from a nulliparous married woman, aged 42 years. The growth was fibro cystic and it weighed 19 lb. It was removed by C. Martin's method of total hysterectomy and the patient did well.—Dr. Lloyd Roberts (Manchester) showed an Ovarian Tumour with Twisted Pedicle. The swelling had been noticed for 12 months. Three months before operation, and again six days before, there had been attacks of severe abdominal pain with vomiting. It was probable that the rotation occurred on these occasions and that hæmorrhage took place on the latter date. The cyst contained 100 ounces of dark chocolate-coloured fluid and the pedicle was twisted three times on itself, its vessels being thrombosed. The patient made a good recovery.—Dr. W. E. Fothergill (Manchester) exhibited: (1) A Uterine Cast from a case of Dysmenorrhœa having the shape of the uterine cavity, in which there was a small central space with no epithelial lining and the structure of which was composed of a delicate fibrous stroma with numerous round cells but no glands or vessels; (2) a Fibro-myoma of the Round Ligament from a patient who was suffering from peritonitis, the growth being found in the sac of an inguinal hernia and its pedicle being proved to be the left round ligament, the microscope showing it to be composed of fibro-myomatous tissue; and (3) Water-colour Drawing of Multiple Ulcers of the Inner Side of the Thigh and Vulva, the primary condition of which was one of kraurosis and the ulcers presenting epitheliomatous characters on microscopical examination.—Dr. J. W. Martin (Sheffield) showed a specimen of Double Pyosalpinx from a patient, aged 35 years, who had been married for seven years and was sterile. The history dated from a few months after marriage. There was no evidence or history of gonorrhœa. The tubes were removed and the patient had made a rapid recovery.—Dr. J. E. Garner (Preston) showed the following two specimens: 1. A Proliferous Ovarian Cyst removed from a patient who was between three and four months pregnant. There had been severe pain for about a fortnight before operation. The pain did not cease and abortion took place on the second day when the patient died from collapse. The fluid in the cyst was black. 2. A Fibro-sarcoma of the Ovary. The patient was a multipara, aged 35 years. The tumour had been noticed for about 15 months but it had rapidly increased during the last three months The tumour was easily removed. There was much ascites. The peritoneum was flushed with normal saline solution and closed without drainage. Recovery was uninterrupted.—Dr. E. T. Davies (Liverpool) showed: (1) Multiple Fibro-Myomata successfully removed from the lower uterine zone by morcellation per vaginam; and (2) Tuberculous Salpingitis associated with tuberculous peritonitis and ascites. The tubes were removed, the fluid was evacuated, and the peritoneum was flushed with normal saline solution. The wound was closed without drainage. The improvement was so far well marked.—Dr. W. J. Sinclair (Manchester) showed the specimen from a case of Tubal Pregnancy which had advanced to between five and six months without rupture of the tube. The sac and its contents were removed by abdominal section. The tumour was situated in front of and above the uterus and was very adherent and difficult to separate. A careful examination of the relations of the uterus and the ovaries and tubes with the sac proved that the latter was formed of the wall of the inner third of the Fallopian tube. There was a distinct interval between the sac and the uterus proper and the tube could be distinctly traced into and out of the cyst. There had been no rupture. The patient recovered.

Leeds and West Riding Medico-Chirurgical Society.—The last meeting of the session was held on May 3rd, Dr. Gordon Black, the President, being in the chair.—Dr. Christy Wilson (Doncaster) read a paper on four cases of Perforation of the Stomach and Duodenum successfully treated by operation.—Mr. H. Littlewood said that he had operated on 12 cases of acute perforated gastric ulcer and three cases of acute perforated duodenal ulcer. The gastric ulcers were all in women and the duodenal in men. Of the patients suffering from gastric ulcer only four had made complete recoveries; one lived for two or three months and died from an abscess in the lung and emphysema on the left side; another lived one week; and the remaining six died within a few hours of the operation, one of these dying as soon as the abdomen was opened. The cases of duodenal ulcer were all operated on after 36 hours from the time of perforation and all terminated fatally. Mr. Littlewood thought that the shorter the interval between the perforation and the operation the more likely were the cases to terminate successfully. In two of his successful cases he had not drained the peritoneum.—The President, Mr. F. Mayo, Mr. Basil Hall, and Mr. B. G. A. Moynihan also took part in the discussion.—Dr. J. Stewart read notes of five cases of Tubal Gestation. He held that it was not necessary to operate in every case of ruptured tube or tubal abortion, as four of his five cases recovered without operation. He preferred to advocate the plan of waiting and watching, and if any untoward event occurred to be prepared to operate at once, thus in a great many cases avoiding incisions in the abdominal wall, risks of ventral hernia, and interference with pelvic organs. In the first case the hæmorrhage was so slight and the length of time from the last period so short—viz., five weeks—that he looked upon it as a case of tubal abortion. Yet of the series it was the only case in which shock was a pronounced symptom, the patient nearly dying on two separate occasions from profound shock, an interval of seven days occurring between each attack. With the exception of shock all the classical signs were present in the five cases. In all there were amenorrhœa and a mass in the pelvis. In Cases 2, 3, 4, and 5 the amount of pelvic effusion was enormous. In Case 2 the effusion was looked upon as extra-peritoneal as there was well-marked stricture of the rectum, with tape-like motions. In four of the five cases a decidual membrane was present. The bleeding into the pelvis was very "quiet" in character (as it gave rise to few symptoms excepting the increasing size and discomfort of the pelvic mass) if Case 1 and the secondary hæmorrhage in Case 5 might be excepted. Cases 1, 3, 4, and 5 were regarded as intra-peritoneal, the latter being certainly so. The non-operative cases were kept in bed from six to 15 weeks, no trace of any pelvic storm taking place. The fifth case did well up to the seventeenth day after primary rupture, when secondary rupture took place and the patient almost succumbed. Dr. Stewart removed the tube under ether, leaving the ovary behind. The patient almost succumbed on the table but recovered as soon as flushing was commenced. Drainage was maintained for 24 hours. The silk ligature appeared through the drain track on the sixteenth day after the operation. The patient made an uneventful recovery. The tube, decidual membrane, and silk ligatures from the case were shown.—Cases and specimens were shown by Dr. S. Lodge, jun. (Bradford), Dr. T. Churton, Mr. Littlewood, Dr. J. B. Hellier, Mr. Moynihan, Mr. Constable Hayes, Mr. Lawford Knaggs, and Dr. E. F. Trevelyan.—The annual meeting of the society was held at the close of the ordinary meeting. The following officers were elected for the ensuing session:—President: Dr. A. G. Barrs. Vice-Presidents: Dr. W. L. Hunter (Pudsey) and Mr. C. Richardson. Committee: Mr. Edwin Lee (Dewsbury), Dr. F. A. Mouillot (Harrogate), Dr. H. J. Clarke (Doncaster), Mr. B. G. A. Moynihan, Mr. H. Secker Walker, Mr. C. J. Wright, Dr. F. W. Robinson (Huddersfield), Dr. Gordon Sharp, Dr. S. Long (York), Dr. Priestley Leech (Halifax), Dr. Gordon Black (Harrogate), Dr. W. A. Evans (Bradford), Mr. Edwin Roberts, Dr. A. H. Bampton (Ilkley), and Mr. Walter Thompson. Honorary secretaries: Dr. E. F. Trevelyan and Mr. Lawford Knaggs.

Glasgow Obstetrical and Gynæcological Society.—A meeting of this society was held on April 24th, Dr. John Edgar, Vice-President, being in the chair.—Dr. Andrew Richmond read notes of a case of Hydatidiform Mole. The patient, a young unmarried primipara, complained on March 5th, 1901, of sickness and vomiting of two weeks' duration. For the same time there was a blood-stained vaginal discharge, commencing with a menstrual period. The previous menses had been normal. The mammary areolæ were darkened, and the uterus was found to be enlarged. Early pregnancy was diagnosed. The vomiting did not yield to treatment, but it got worse, all food being rejected, while the pulse became rapid and feeble. By the 22nd the uterus had increased rapidly and out of all proportion to a normal pregnancy, and as it felt soft and boggy a diagnosis of hydatid mole was made. At this date the abdomen at the umbilicus measured 26 inches round, and three days later it was 28½ inches. The patient had to be fed by nutrient enemata, but as her condition became rapidly worse abortion was induced on the 29th in Paisley Infirmary. On the 31st septicæmia supervened and in spite of active treatment the patient died on April 7th. A post-mortem examination made the next day revealed a widespread septic peritonitis. The source of infection was found to be from a laceration or wound in the posterior vaginal fornix, leading to a semi-gangrenous area in the pouch of Douglas. The endometrium was also gangrenous, but the Fallopian tubes were not affected. As no violence was used and as the uterus expelled its contents naturally it remained unknown how the wound in the fornix originated. The strictest aseptic and antiseptic precautions had also been observed.—Dr. Edgar read notes of a case of Carcinoma Cervicis for which vaginal hysterectomy was performed. The case was brought forward to show the advantage of curettage and the application of formalin to the growth. This was done when the patient, aged 43 years, was first seen, as she was too ill to permit of a major operation. Three months later the patient was well and strong; she had gained 28 lb. in weight, was free from discharge, and she menstruated regularly and normally. A vaginal hysterectomy was then performed with success.—Dr. John H. Teacher gave a demonstration of Placental Structures at different months of Pregnancy, illustrated by lantern-slides and microscopic sections.—Dr. J. K. Kelly opened a discussion on the Causation, Nature, and Treatment of Retroversion of the Non-gravid Uterus. After referring to the normal position of the uterus and the factors which kept it there, he treated of the various causes of retroversion and classified them into mobile and fixed, primary and secondary, according as they were independent of, or merely an incident in, descent of the uterus. He regarded the wearing of a pessary as sufficient treatment in the majority of mobile retroversions. If the pessary failed he performed ventrofixation. He had abandoned vaginal fixation and Alexander Adams's operation. In cases of fixed retroversion it was sometimes possible to break down the adhesions under anæsthesia and to bring the uterus into a good position and to retain it there. Where this was impossible, and in other cases demanding operation, as for diseased appendages, he performed laparotomy, freed the uterus, removed the tubes and ovaries if desired, and finished by a ventrofixation to the anterior abdominal wall.—Further discussion was postponed till next meeting.

Bristol Medico-Chirurgical Society.—The eighth meeting of the session of this society was held in the medical library of University College, Bristol, on May 8th, Dr. D. S. Davies, the President, being in the chair.—The President proposed, and it was carried, "That a vote of congratulation be accorded to the honorary secretary (Mr. Paul Bush) on his receiving the honour of being made a Companion of the Distinguished Order of St. Michael and St. George for services rendered in connexion with the Boer War."—Dr. J. O. Symes showed Specimens of Blood with Malaria Organisms.—Dr. A. E. Aust Lawrence read a paper on Some of the Hæmorrhages of Pregnancy.—Dr. Barclay J. Baron reported a case of Paralysis of the Right Vocal Cord due to thoracic aneurysm and showed skiagrams taken by Mr. J. Taylor.—Dr. E. Markham Skerritt, Dr. P. W. Williams, Mr. W. H. Harsant, Mr. Paul Bush, Dr. F. H. Edgeworth, and Dr. K. Wills discussed the case.—Dr. J. Michell Clarke read a paper on the Treatment of Inveterate Cases of Sciatica.—Mr. H. F. Mole, Mr. Harsant, Dr. Edgeworth, Mr. C. E. S. Flemming, Dr. C. Elliott, Dr. J. Barclay Baron, Dr. G. Parker, and Mr. J. Hancocke Wathen remarked on the paper.—Dr. Parker reported a case of Congenital Obliteration of the Bile Ducts and showed specimens.

Glasgow Pathological and Clinical Society.—A meeting of this society was held on May 13th, Mr. Henry E. Clark, C.M.G., the President, being in the chair.—Dr. A. Ernest Maylard showed a case in which he had performed Colocolostomy for Stricture at the Upper End of the Sigmoid Flexure, and read notes of another case in which he had treated Multiple Tuberculous Strictures of the Small Intestine by Jejuno colostomy.—Dr. James Lawrie (Greenock) showed a case in which Excision of a Ruptured Traumatic Aneurysm of the Femoral Artery at the Apex of Scarpa's Triangle had been performed.—Dr. Henry Rutherfurd showed (for Dr. Newman): (1) A Resonator for Detecting Calculi in the Lower End of the Ureter; (2) Harris's Urine Segregator; and (3) Schlagintweit's Cystoscope.—Dr. Edward J. Primrose showed a specimen of: (1) Patent Pericardium; (2) Solitary Kidney with Single Ureter; and (3) Urinary Bladder with a Horizontal Septum—all from the same subject.—Fresh specimens:—Dr. Lawrie: Epithelioma of the Tongue.—Professor Muir: Sarcomata in the Dura Mater, Lungs, and Liver.

West Kent Medico-Chirurgical Society.—The seventh meeting of the forty-fifth session of this society was held at the Royal Kent Dispensary, Greenwich, on May 3rd.—Dr. Septimus Sunderland delivered his presidential address on Uterine Hæmorrhage: its Causes and Treatment.—After the address a most enjoyable smoking concert was provided by the generosity of the President. The following artists contributed to the amusement of the evening:—Mr. Bowen Williams, Mr. F. H. Cheesewright, Mr. E. Wallace, Mr. Carl Brandt, Mr. Alec White, Mr. W. Keast, and Mr. Stanley Graham.—The annual dinner of the society will take place at the Hotel Cecil on Tuesday, June 18th.

Reviews and Notices of Books.

The Science of Hygiene: a Text-book of Laboratory Practice. By WALTER C. C. PAKES, D.P.H., F.C.S., Bacteriologist to Guy's Hospital and Demonstrator of Sanitary Science and Bacteriologist in the Medical School, &c. London: Methuen and Co. 1900. Pp. xv.-308. Price 15s.

THE title of this book is somewhat misleading, as it deals almost entirely with the arts practised by the hygienist in his laboratory. It is, however, a very excellent and useful volume, practical in character, wide in scope, and accurate in detail. It covers the whole of the laboratory work required from candidates for the various diplomas in public health, and, indeed, it covers much more than this, and will be found a good work of reference for medical officers of health generally. We know of no other single book which attempts, much less succeeds in, so wide a field.

The book is divided into five parts. Part I. deals with Bacteriology purely from the laboratory point of view. It gives a full and detailed account of the technique of the subject, including the making of media, and contains a scheme for the examination of the bacteria most important from the hygienist's standpoint, together with an account of the bacteriological investigation of water, air, soil, milk, &c. It appears to be a very adequate and accurate course of laboratory work and cannot fail to be of much utility. We have few criticisms to pass upon it, but we note the use of the term "hypomycetes" for hyphomycetes, and we fail to see what advantage the German word "fleischwasser" has over the English terms "broth" or "meat infusion." In describing the mode of preparing agar-agar plates we find no reference to the convenient method of allowing them to solidify and then inoculating the surface only.

Part II. deals with Microscopic Hygiene and is in many respects the most novel and useful part of the book. It describes the appearances of the different starches, fibres, and parasites which the candidate for a public health diploma is expected to recognise, and the microscopic characters of various foods. This part is illustrated profusely and fairly well, which adds much to its utility. We doubt whether pediculus vestimentorum can be so readily distinguished from pediculus capitis as the author imagines. We should also be glad to learn why the organism of relapsing fever, described as belonging to the bacterial genus spirillum (or spirochæta), is positively stated to be a protozoön, although we know almost nothing about its life history.

Part III. deals with the Chemical Analysis of Water, Foods, and Air, and seems an excellent laboratory guide, founded as it is on the author's own experience. An admirable feature of this, as of other parts of the book, is that everything is explained and not merely stated. We may call attention to a misprint on p. 191, in the equation showing the reaction between silver nitrate and sodium chloride.

Parts IV. and V. deal with Physics and Vital Statistics in a theoretical way and apart from laboratory work. These sections call for no special comment. We would repeat, in conclusion, that Mr. Pakes has produced an eminently useful and practical book which should find much favour with those for whom it is written since it has the great advantage of comprising within one cover information which can otherwise only be gathered from several different sources.

Manuel de Thérapeutique Clinique: Accouchements et Maladies des Femmes en Couches. (Manual of Clinical Therapeutics: Labour and the Diseases of the Puerperal Period.) By M. GAULARD and M. BUE. Paris: Vigot Frères. 1901. Pp. 602. Price 8 francs.

THE importance of the diseases of the puerperal period can hardly be over-estimated, and since it is impossible within the bounds of the ordinary text-book for students to consider them in any great detail such a manual as this is of great service. In the present instance the authors have collected a great deal of information and their own experience and that of others are fully summarised. The teaching is, of course, mainly that of the French school of midwifery and many of the recommendations are therefore novel and at times contrary to English practice as taught in our medical schools. The numerous valuable contributions to the science of midwifery made by such French obstetricians as Pinard, Tarnier, Budin, and Varnier, and the fact that the operation of symphysiotomy is practised to a greater extent in France than in almost any other country, render the perusal of this book of great interest. A manual in the English language dealing with the diseases of the puerperium is at the present time a desideratum, but in the absence of such a book we can recommend students and practitioners either the present work or the well-known monograph of Vinay.

After a consideration of the proper treatment of normal and abnormal varieties of presentation and the treatment of the delivery of the placenta the disorders of the various systems that may occur during pregnancy are described A section upon the Effect of General Diseases upon Pregnancy and the Puerperium follows and then come chapters upon Diseases of the Ovum, Extra-uterine Gestation, Abortions, and Obstruction to Labour produced either by Abnormalities of the Fœtus or of the Pelvis. The two concluding chapters treat of the Various Forms of Septic Infection and the Disorders of the New-born Child.

Modern Medicine. By JULIUS L. SALINGER, M.D., Demonstrator of Clinical Medicine, Jefferson Medical College, &c.; and FREDERICK J. KALTEYER, M.D., Assistant Demonstrator of Clinical Medicine, Jefferson Medical College. London and Philadelphia: W. B. Saunders and Co. 1900. Pp. 802. Eight Plates. Price 17s.

THIS is one of those works of which a short review only is necessary. The aim of the authors has apparently been to render the book a synopsis of our present knowledge of medicine without entering into the details as to pathology or theoretical considerations, but we cannot state that a successful text-book is the result, and omissions and errors are constant.

The first part of the volume is concerned with descriptions of physical diagnosis, clinical bacteriology, the examination of the gastric contents, urine, blood, and fæces. There is nothing new in the pages devoted to these subjects.

Turning to the major portion of the work, that devoted to consideration of the various diseases, we again find much to criticise. Pathology receives but scant attention and the symptomatology is frequently insufficiently described. There are some exceptions, however, such as the account of "Infective Endocarditis," which is accurate and well given.

In the description of physical signs, too, the authors again fail in many instances to give a sufficiently full idea to the reader of the many anomalous cases that may occur at the bedside. They describe a characteristic case, but the student who relies on such data will find that there are more exceptions than cases which follow the signs laid down in this text-book. We do not think that the book is likely to become popular in this country.

Materia Medica and Therapeutics, with reference to the Most Direct Action of Drugs. By FINLEY ELLINGWOOD, M.D., editor of the *Chicago Medical Times*. With a Condensed Consideration of Pharmacy and Pharmacognosy by Professor LLOYD, Ph.D., of the Eclectic Medical Institute of Cincinnati. Chicago: Medical Press Co. 1900. 8vo, pp. 706 Price $5 00.

THIS work on materia medica, recognising the United *States Pharmacopœia only in passing* and our *British* Pharmacopœia not at all, will probably not meet with a very cordial reception in the United Kingdom. The parts of the work descriptive of the materia medica are thorough and good and the classification is satisfactory. It is evident that the author is a botanist of no mean order and that he has taken the very greatest trouble to give complete descriptions of every vegetable drug with which he deals. All the medicines are classified as "agents acting upon" one or other system or part of the body, and organic and inorganic drugs find themselves side by side in the same group and chapter. It is probable that the author's therapeutics, however, will not be particularly well received. The style in which therapeutics are dealt with is scarcely scientific; it is over-confident, and members of the profession in England, who are seldom "eclectic," will not be attracted by the statement that hints have been taken "from eminently irregular sources." To be perfectly honest, we are obliged to add that a great deal of the author's introduction suggests that he has approached the study of medicinal treatment from an empiric standpoint. "Eclecticism was originally composed of many dissonant facts. These have been fused or amalgamated until it now has an essentially exact constitution ...... a characteristic individuality which wins for it the approval of all consistent observers." In this style is the book built up, and no one with a sense of humour will fail to glean some amusement from this attempt to make "eclecticism" a school in itself founded on the "gems of truth" gathered and rescued from the teaching of the schools of allopathy and homœopathy and elsewhere.

The Dreamers: An Original Play in Five Acts. By GEORGE H. R DABBS, M.D. Aberd. Shanklin, I.-W.: Silsbury Brothers. 1901. Pp. 45. Price 6*d*.

DR. DABBS has published "The Dreamers" in book form before it has been acted because, as he states in a prefatory note, "no author living amid provincial surroundings, who has not the intention of wasting money on expensive and useless experiments, can ever hope to secure for his work another kind of hearing." We need not discuss the accuracy of this statement at any length, for many things might be said on both sides of the question which it raises without any definite conclusion being reached, and it will be enough to say that "The Dreamers" strikes us as being a better written and more interesting piece than are many of the plays which have been acted and which have secured some measure of commendation, while at the same time it is probably better as a story told in dialogue than it would be if presented without alteration on the stage. It is a drama of modern life in which the principal characters are representatives of Capital on the one side and of Labour on the other, the representatives of Labour being prominent members of continental secret societies which are on the brink of appealing to very extreme measures indeed to bring about their ends. One of the continental secret envoys, actuated by motives that are a little obscure, combines the objects of his society with endeavouring to exact blackmail from the wife of one of the capitalists, a lady who has a past with which another capitalist is connected. But we have no intention of giving away Dr. Dabbs's plot; we have indicated that it is of a sensational, almost of a melodramatic nature, and we need only add with regard to it that it supplies at the ends of Act III. and Act IV. two highly dramatic and interesting scenes which we should say were eminently suitable for stage purposes. The characters are clearly and firmly drawn and their characterisation should become even more marked if "The Dreamers" were ever to see the foot-lights. The drawback to stage production to which we have referred seems to us to lie in the fact that a good deal is talked of at times which is not brought before the audience in the action, whereby occasionally there might arise a little difficulty in following matters of detail that are also matters of importance. A playwright who desires his play to be produced by others, as Dr Dabbs from the note that we have quoted would seem to do, has to remember that managers who may be unwilling to "waste money on expensive and useless experiments" have to consider the intelligence of the audiences for whom they must cater if they want to make money, and that the measure of that intelligence is the hearing and understanding capacity of a rather dull person in the middle of the pit, who will be no deafer or duller than many other persons in the stalls and the dress circle; while neither in stalls nor pit is it possible to turn back, like the reader in an arm-chair, to a previous page in order to pick up a lost thread or to recall what has gone before. Still difficulties of this kind can usually be got rid of by cooperation between a willing author and an intelligent stage-manager, while the same two in partnership might contrive a means of dispensing with Dr. Dabbs's Fifth Act, which from the point of view of stage production is as undesirable as is the proverbial fifth wheel of the coach Beyond this questions of probability as to how much an audience will stand in the nature of anarchist plotters who give their victims cigarettes that kill in a few whiffs, and whether gentlemen and ladies in evening dress control or endeavour to control anarchists from modern English drawing rooms, are elements in the choice of a theatre, but they need not be discussed by a reviewer. "The Dreamers," from a literary point of view, is well worth reading and we commend it to the attention of those who might give it a public hearing to their own advantage.

LIBRARY TABLE.

A Practical Guide to the Public Health Acts: a Vade Mecum for Officers of Health and Inspectors of Nuisances. By THOMAS WHITESIDE HIME, B.A , M.D Dub. Second, much enlarged, edition. London: Baillière, Tindall, and Cox, 1901. Pp 1096 Price 15*s*. net.—This is a veritable mine of information of a somewhat heterogeneous nature, a limp leather-bound octavo volume of lvi. + 1040 pages, with sundry illustrations The first edition of the book was a small, handy pocket volume, but the author in the the second edition has somewhat destroyed the portable character of the volume The book may best be described as a guide to the public health statutes, regulations, orders, by-laws, and memoranda, while it embraces in addition essays upon multitudinous subjects bearing directly or indirectly upon the public health. It is impracticable even to indicate all the contents of this volume, but it may be said that the duly qualified sanitary official will derive much assistance therefrom. We say the duly-qualified official because we feel that the book is more fitted for him than for the student. For the latter the book is, perhaps, a little too complicated, and the rather decided views of the author upon certain subjects render the work more fitted for the matured judgment and critical faculty of the sanitary officer than for the student. Moreover, the scheme of the book is not altogether easy to follow notwithstanding the index and that the Acts are arranged in chronological order. What the author terms "hints" abound in the book and some of such hints are most useful. We have "hints on meat," "hints on statistics," &c., while such subjects as country holidays for poor children, soup kitchens, &c., receive their share of attention. Specimen examination papers for the Diploma of Public Health are within the scope of the volume and in the appendix will be found a selected list of important sanitary law cases which should prove of great value.

Comment la Route crée le Type Social. (*How the Route creates the Social Type.*) By EDMOND DEMOLINS. Second edition. Paris: Firmin-Didot and Co. 1901. Pp. 472. 8vo. Price 3 francs 50 cents.—The actual substance of this work was embodied in a series of lectures given by the author before the Geographical Society in Paris. Drawing largely on the information gained during 25 years' research by M. Henri de Tourville, the author explains to his own satisfaction that the great diversity among the races that have peopled the world has been brought about by the fact that, all originally starting from man's birthplace, the Garden of Eden, different groups have followed different trade routes across the earth and have become modified by their surroundings, so as to form the present social types. There are certain well-recognised great routes of travel and trade over the world, and the author describes in much detail some of, if not all, the types produced by each of these routes. But the work has little or no interest to the ordinary physician or surgeon and is practically an essay in ethnology. There are no illustrations but a few diagrammatic maps.

Transactions of the Society of Anæsthetists. Vol. III. London: Medical Publishing Company. 1900. Pp. 168.—This volume contains a valuable paper by Dr. G. H. Savage on the Relationships between Anæsthetics and Insanity. Although the author finds no evidence of severe mental aberration being initiated in persons who have not had a predisposition to insanity, or actual attacks of insanity, he has met with many individuals among both classes in whom attacks have resulted upon the use of anæsthetics. He admits no difference between various anæsthetics as regards the onset of such attacks nor does he know of any way of obviating the liability to these nerve storms and the subsequent mania. We gather that Dr. Savage would not condemn anæsthesia in the case of those actually insane at the time of the operation and has not found their subsequent condition worse. An instructive discussion upon the "After-Effects of Ether Inhalation upon the Respiratory System," by the members of the society, is given. The conclusions are practically those generally adopted at the present time—viz., that the respiratory troubles following ether are as a rule slight and that when broncho-pneumonia or other serious sequelæ occur they do so as a result of exposure either during the operation or in the subsequent removal of the patient to the ward. Mr. Edgar Willett contributes a useful paper on the Administration and Choice of Anæsthetics for Infants and Young Children and recommends the use of a freshly-prepared mixture of equal parts of ether and chloroform. He gives this by means of a Skinner's frame or double layer of lint, supplying the mixture guttatim from a drop bottle. Some very instructive cases are recorded by Dr. McCardie, Mr. Rickard Lloyd, Mr. Carter Braine, Mr. E. M. Corner, and others. We congratulate the society upon a most servicable volume which must appeal by its own merits to all who take an interest in, or are anxious to keep abreast of, the department of science with which these transactions are concerned.

Royat: Indications Thérapeutiques Méthodiquement Classées. (*Royat: Therapeutic Indications Methodically Classified.*) By Dr. A. BOUCHINET, consulting physician to the Spa. Paris: J. B. Baillière et Fils. 1901. Pp. 104. Price 1*s.* 8*d.*—The mineral springs at Royat have long been recognised as useful medicinal agents in the treatment of anæmia in its various forms and of all painful affections of the joints. The author, who has been practising for the last 10 years as physician at the spa, is anxious to extend the sphere of usefulness of these alkaline waters, and this little book is intended to supply accurate information about everything connected with them. There are four of them, with temperatures ranging from 20° C. to 35° C—that is, from 68° F. to 95° F.—and the mineral salts which they contain vary from two grammes to five and a half grammes per litre. The other diseases which the author claims to be able to relieve or to cure by the use of Royat waters internally and externally are neurasthenia, gouty neuralgias, chronic laryngitis, and the various disorders likely to occur at the menopause. In addition to these are endometritis and the consequent sterility. No records of cases or other references are given.

Records from General Practice. Part II. By J. KINGSTON BARTON, M.R.C.P. Lond., M.R.C.S. Eng., J.P. London: John Bale, Sons, and Danielsson. 1901. Pp. 208. Price 2*s.* 6*d.*—We reviewed the first instalment of Mr. Barton's "Records" in our issue of June 30th, 1900, p. 1889. This, the second number, contains amongst other papers details of 100 cases of midwifery. In those which cover a period of time from June, 1887, to June, 1898, there were no maternal deaths and there was but one death of the child, due to craniotomy. The patient was a primipara, aged 38 years, with a narrow pelvis. During labour she developed acute cardiac dilatation. Dr. W. S. A. Griffith attempted delivery with forceps but failed. Owing to the critical condition of the mother craniotomy was decided upon and delivery was successfully performed. The mother made a good recovery and the action of the heart quickly became normal. Of other papers, those on Drugs and Remedies and the Notes on Urine contain many useful observations.

Mentone as a Health and Pleasure Resort. By D. W. SAMWAYS, M.D. Camb. and Paris. Illustrated by reproductions of numerous photographs. London: Bemrose and Sons, Limited. 1901. Pp. 104. Price 3*s.* 6*d*—This is a small pocket guide with an excellent photograph on almost every other page. If for no better reason than these numerous illustrations, it constitutes a capital little souvenir of the picturesque winter station But there is also a sufficiency of descriptive matter. There is even a brief historical sketch of Mentone extending to the middle ages and describing the various changes that have taken place, including its rebellion from the princely dominion of Monaco and the formation of an independent republic. Of course, such questions as that of the climate are treated at much greater length, for it is the climate which is the main, if not the sole, attraction to Mentone. In this respect the photographs serve better than the text to show how thoroughly Mentone is sheltered from the cold winds and exposed to the hot southern sun. The climate is also vindicated by the vegetation, the orange and the lemon trees, the aloe, the prickly pear, and the violets that appear early in January. The clearness of the atmosphere is proved by the fact that the mountains of Corsica, though 100 miles away, may often be seen across the sea. The advantages which Mentone affords for the climatic treatment of disease are naturally discussed at considerable length and we find that "on the whole phthisical patients are far from being now the bulk of Mentone invalids," but that "half the English doctors who have practised in Mentone came to save their lives and but one has failed." Bronchitis, emphysema, catarrhal conditions generally, cardiac weakness, asthma that is not due to nervous conditions, laryngitis, and renal diseases are all favourably influenced by the climate of Mentone. Dr. Samways also describes the drives, excursions, and diversions generally that visitors may enjoy when wintering at Mentone and has practical advice to give in regard to the hotels, furnished villas, &c. The book will therefore be of use to those who propose to winter at this particular spot.

JOURNALS AND MAGAZINES.

American Medicine. Vol. I., Nos. 1 and 2.—This is a new medical journal and is, as we learn from the title-page, "founded, owned, and controlled by the medical profession of America." Among the writers of original articles we see such well-known practitioners as Osler of Baltimore, Hare of Philadelphia, and Deaver of Philadelphia. The type is good, the paper is good, and the editorial comment, as might be expected from such an editor as Dr. G. M. Gould, is bright, pithy, and interesting. A feature of the journal is the "World's Latest Literature," which is a well selected *résumé* of medical literature from other journals. We were pleased to see in the prospectus affixed to No 1 that "the reading columns will not be dominated or influenced by commercial considerations. Not a 'reading notice' will ever appear if watchfulness can prevent. Any attempt to bribe or intimidate editorial action—and such attempts, positive or negative, are common—will fail." It was with some surprise, therefore, that we saw at the end of the journal three pages given up to a record of the use of two drugs in certain diseases, exemplified by reports of cases and illustrated with temperature charts. For these articles, which at first sight appear to be original articles, are in fact mere reprints from back numbers of other medical journals and are advertisements pure and simple, only printed to look as if they were not so. The list of founders and subscribers to the new journal includes some of the most honoured names in American medicine. It is therefore to be hoped that the advertisements will not appear again in the objectionable form to which we have referred. They are still in evidence in No. 2 and are in this number even more like "reading matter" than in No. 1, for in that number they were divided from the journal proper by a list of subscribers. But we are confident that this little incongruity has escaped the eye of the editor and will promptly be set right. Dr. Gould, if only by reason of his wonderful "Illustrated Dictionary of Medicine, Biology, and Allied Sciences," is entitled to the gratitude of every English-speaking medical editor, and we cordially wish him success in his new venture.

The *Practitioner* continues in the May number its consideration of organo-therapy. Dr. W. E. Dixon contributes a commendably concise yet interesting article on the Composition and Action of Orchitic Extract. He concludes that injections of this extract as administered by Brown-Séquard have a powerful influence in metabolism and on blood-pressure. The metabolic effects are shown by changes in the blood and urine. Dr. Dixon also discusses the ovary as an organ of internal secretion. A case of transplantation of an ovary from one woman to another is quoted. Dr. W. Bulloch summarises recent work on the nature of cytotoxins. Dr. C. R. Box writes on the value of suprarenal preparations in Addison's disease, discussing two cases very carefully observed over considerable periods of time. There is very little evidence as yet of benefit in Addison's disease from suprarenal extract. An article on the recent work of some French authors deals with their conclusions as to the therapeutic value of extracts from various organs. Some remarkable effects are quoted, particularly as regards liver extracts used in cases of diabetes and intestinal extracts in cases of obstruction of the bowels. The hero of medicine for the month is Brown-Séquard whose restless and effective life is succinctly told. The editorial remarks deal mainly with the question of army medical reform The affairs of the National Hospital for the Paralysed and Epileptic, Queen square, W C., are also discussed, and Mr Burford-Rawlings is very justifiably castigated. Dr. Arthur Newsholme writes on ventilation of schools, and there are, as usual, good summaries of recent work in one or two departments of medicine.

The *Medical Magazine* is not very interesting in its May issue. Mr. J. Foster Palmer allows the account of modern epidemics to lead him from the consideration of cholera to the investigation of infinity We want more physics and less metaphysics in such articles. Mr. A. R. Whiteway upholds the Elmira method of treating criminals. Dr. Thomas Oliver writes on health in the school and some good advice as to ventilation and spread of infection in schools is to be found in his article.

# Analytical Records
FROM
THE LANCET LABORATORY.

PLASMON COCOA.

("INTERNATIONAL PLASMON," LIMITED, 66, DUKE STREET, GROSVENOR SQUARE, LONDON, W.)

PLASMON cocoa is typical of the undoubted advantages that may be gained by the addition of plasmon to a common article of diet. Plasmon increases the food value of cocoa enormously, more than half of the resulting mixture consisting of pure and soluble proteid Raw cocoa is, of course, unsuitable dietetically chiefly because of the large proportion of indigestible fat which it contains. In the best cocoas this fat is reduced to about 30 per cent. from an initial quantity of 50 per cent. The proteid value of cocoa is, however, small, for out of a total amount of 20·85 per cent. only 6·4 per cent, according to a recent analysis which we have made, is soluble Some of the nitrogen of cocoa occurs in the interesting alkaloid, theobromine, an ally of caffeine, in tea, and in coffee, the amount of theobromine being nearly 2 per cent Though cocoa is to some extent nutritive, yet its value as an article of diet is chiefly due to its stimulant properties, and its freedom from irritating substances has made it a satisfactory substitute for coffee and tea where these cannot be tolerated. With milk and sugar cocoa forms an excellent beverage and one which presents the composition of a food in accordance with physiological requirements. The remarkable nutritive power of plasmon has been well-established, and, as we have already pointed out, plasmon may be used with the greatest possible advantage to enrich food otherwise poor in nitrogen or proteid Plasmon cocoa contains all the constituents able to support life. It is mildly stimulating whilst highly nourishing Our analysis was as follows: moisture, 10·82 per cent; mineral matter, 7·50 per cent.; proteids, 57·51 per cent, fat, 10·20 per cent.; and starch and insoluble matters, 13·97 per cent Further analysis leads to the satisfactory result that as much as 92 per cent. of the total proteid of plasmon cocoa is in a soluble state. The cocoa used in plasmon is of excellent quality, possessing the well-known cocoa flavour and aroma to a marked degree whilst containing a minimum of fat—namely, 29·10 per cent. Since plasmon contains at most only a trace of fat, the fat present in plasmon cocoa is wholly derived from the cocoa mixed with it. These figures would accordingly show that plasmon cocoa contains 35·43 per cent. of cocoa and

64·57 per cent. of plasmon. There are many substances mixed with cocoa to which exception may be taken, but the admixture of a soluble proteid which is a rapidly assimilable food is a physiologically correct proceeding, making cocoa a very nourishing article, an advantage which in its natural state it lacks. The addition of plasmon to cocoa, moreover, whilst not detracting from the dietetic properties which it possesses, reduces the fat to a more easily digestible quantity. Plasmon cocoa is an important and valuable adjunct to the every-day dietary and offers an advantage in special dietetics also.

(1) HEROIN PREPARATIONS; AND (2) ELIXIR OF IRON AND MANGANESE PEPTONATES WITH AND WITHOUT CREASOTE

(SCHIEFFELIN AND CO , NEW YORK. LONDON AGENCY POTTER AND SACKER, 7, FOWKES-BUILDINGS, GREAT TOWER-STREET, E C)

We have received a very interesting and elegant series of preparations containing heroin which has been used favourably in the place of morphia as a sedative, particularly in respiratory affections. "Elixir eupnein" contains per fluid ounce one-sixth grain of heroin with eight grains of terpin hydrate and 20 grains of creasote. This preparation has been used in the treatment of pulmonary tuberculosis, chronic bronchitis, and other chronic affections of the lungs. "Elixir heroterpin" contains the same ingredients except the creasote. The combination appears to be valuable in bronchitis and asthma. "Syrup herophosphites," besides containing the hypophosphites of iron, manganese, lime, quinine, strychnine, &c., contains also per fluid ounce four-thirtieths of a grain of heroin. The same preparation may be had free from sugar. The soothing effect of heroin is said to be attended with distinct advantage in this combination. Lastly the preparation known as "Elixir of Iron and Manganese Peptonates with Arsenic" is worthy of mention. Each fluid ounce contains the so-called peptonates of iron and manganese in the quantities of 34 grains of the former and 8½ grains of the latter and one-thirtieth of a grain of arsenious acid. The "Elixir creoferrate" contains in each fluid ounce the same quantities of the peptonates and two grains of creasote, but the arsenic is omitted. This preparation is intended for the treatment of chronic affections of the respiratory organs attended with anæmia. The creasote serves to arrest fermentative dyspepsia.

(1) PEPTO IODO-EIGON; AND (2) PEPTO-BROM EIGON.

(THE HELFENBERG CHEMICAL WORKS CO , LONDON AGENCY, MESSRS. BUCHNER, SCHACHT, AND CO , 55, FORE STREET, LONDON, E C.)

The iodo- and brom-eigons are albuminous compounds of iodine and bromine respectively. Soluble modifications of these compounds are formed by associating them with peptones. As much as 15 per cent. of iodine is contained in pepto-iodo eigon and 11 per cent. of bromine in pepto-brom-eigon; both compounds are easily soluble in water, the solution possessing a meat-like flavour with somewhat bitter and inky aftertaste. The preparations are fine amorphous light brown powders. The peptone reaction is characteristic of each. The halogen can be expelled by heating with nitro-hydrochloric acid. The comparatively large quantity of iodine and bromine respectively contained in these organic combinations is remarkable. They are intended for the administration of iodine and bromine where the ordinary mineral iodides and bromides are badly borne. It is said that no irritation of the mucous membrane or other unpleasant symptom is set up after the administration of pepto-iodo-eigon, as is sometimes the case with potassium iodide, while the pepto-brom-eigon produces no ill-effects as do the ordinary bromides at times, such as giddiness or skin eruptions, even when administered continuously and in large doses. The iodine preparation has been employed in gynæcological practice and in syphilis. These curious halogen albumin derivatives are of great interest both from a chemical and therapeutical standpoint.

CAMBRIDGE LEMONADE

(CHIVERS AND SONS, HISTON, CAMBRIDGE.)

We have carefully examined this preparation for the common impurities of its kind, but without a positive result. The materials are pure and wholesome, being obtained, as it it stated, from selected lemons. The preparation has the appearance of brown sugar which dissolves easily in water, producing a yellow opalescent liquid (an opalescence due to lemon oil) similar to lemon squash. It possesses the pleasant aroma and acid taste of the fresh-cut lemon and affords a refreshing and agreeable summer beverage.

PROTENE DIABETIC BRAN BREAD.

(THE PROTENE CO., LIMITED, 35, WELBECK-STREET, CAVENDISH-SQUARE, LONDON, W.)

This is a brown loaf of good uniform texture and indifferent flavour. Our analysis gave the following results: moisture, 38 60 per cent.; mineral matter, 4·70 per cent; proteids, 25·09 per cent.; fat, 11·25 per cent.; and non nitrogenous matter, including starch, 20 36 per cent. The bread, as will be seen, contains an excellent proportion of proteid representing the separated casein of milk. It is not, however, free from starch but contains a minimal proportion. The fat occurs also in notable amount, over 10 per cent The bread is regarded as useful for the relief of constipation owing to its branny constituents.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary meeting of the Comitia was held on May 9th, Sir WILLIAM SELBY CHURCH, the President, being in the chair.

The following Members were admitted as Fellows of the College: William Burns Beatson, M.D. St. And. (Eastbourne); Arthur Hamilton Nicholson Lewers, M.D. Lond.; John Walter Carr, M.D. Lond.; Edmund Hobhouse, M.D. Oxon. (Brighton); William Rivers Pollock, M.B Cantab.; Hugh Walsham, M.B. Cantab.; Walter Sydney Lazarus-Barlow, M D. Cantab.; Edmond Fauriel Trevelyan, M.D. Lond (Leeds); John Hannah Drysdale, M.D. Cantab; Frederick Eustace Batten, M.D. Cantab.; Raymond Henry Payne Crawfurd, M.D. Lond.; and George Frederic Still, M.D. Cantab. The admission of Dr. W. J. Tyson was unavoidably postponed

Dr. Norman Moore was elected by a large majority as the Representative of the College on the General Council of Medical Education and Registration for a term of five years from May 14th, 1901.

On the motion of Dr. NORMAN MOORE, seconded by Dr. JAMES TAYLOR, a report from the Committee of Management on a letter, dated Dec. 12th last, from the General Medical Council, inclosing a resolution of the Council with respect to the registration of medical students, was fully considered, and it was adopted by a very large majority. The following Fellows took part in the discussion: Dr. D. MACALISTER, Dr. P. H. PYE-SMITH, Sir R. DOUGLAS POWELL, Dr. P. W. LATHAM, and Dr. J. F. PAYNE.

The PRESIDENT announced that the following Fellows had been appointed to serve on a joint committee of the two Colleges to consider the position of the Colleges in relation to the newly organised University of London: the President, Dr. Pye-Smith, Dr. W. H. Allchin, Dr. J. Kingston Fowler, and Dr Norman Moore.

Dr. THEODORE WILLIAMS was appointed as the delegate of the College to the British Congress on Tuberculosis to be held in London from July 22nd to the 26th inclusive.

Permission was granted to Mr. Rischgitz to take photographs of the portraits of the Munro family in possession of the College.

The report from a special meeting of the Censors' Board, held on April 29th, recommending that the diploma of a Licentiate should be suspended for two years, was received and adopted.

THE LANCET.

LONDON: SATURDAY, MAY 18, 1901.

The General Medical Council and the Royal Colleges of Physicians of London and Surgeons of England: a Deplorable Impasse.

THE five years' curriculum of medical study, which has now been in operation for about nine years, has been the source of unexpected controversy between three of the leading bodies connected with medical education. The dispute in question is only of about 18 months' standing, but it appears likely to result in a deadlock since neither of the disputants seems inclined to yield, and if it should continue the system of registration of students by the General Medical Council will be imperilled. When the extension of the curriculum was adopted it was with the hope that more time would be afforded to the student for the clinical and practical part of his work. We are far from saying that something has not been gained in this direction, but at the same time it is notorious that the chief use made of that additional year has been to utilise it for the earlier part of (so-called) medical studies, for work which is not strictly speaking medical but scientific; and the whole trouble has arisen from the refusal of the two Royal Colleges of Physicians of London and Surgeons of England to be bound by the General Medical Council in their selection of institutions where these preliminary studies may be carried on. For the General Medical Council requires that "no medical student shall be registered until he has passed a preliminary examination as required by the General Medical Council, and has produced evidence that he has commenced his medical studies at a university or school of medicine, or at a scientific institution recognised by one of the licensing bodies and *approved by the Council.*" It is around the claim represented by the words which we have italicised that the whole controversy is centred.

As in most disputes between reasonable persons there is something to be said on both sides. The General Medical Council, composed as it is largely of representatives of the medical corporations and universities of the United Kingdom, including those of the two recalcitrants, is no doubt keenly desirous of maintaining a high level of education all round. Its requirements as regards the preliminary examination in arts of intending medical students are by no means excessive; many people think they are not stringent enough. But they have been accepted by licensing bodies as adequate, and none of these bodies, except the universities, show any desire to establish examinations in these extra-curricular subjects. The next stage in the student's career is the one where the difficulties arise. He is supposed to commence his medical studies when he is really entering upon a course of physical and natural science such as he can often acquire at the school whence he matriculated, as well as at many an institute of science which has no reference to the career which he is assumed to have already entered upon. The General Medical Council having imposed a five-years' curriculum from the commencement of medical studies cannot ignore this period of the youth's career, and with a solicitude which testifies to its desire for a common standard declines to recognise him as a medical student at all unless he has pursued these scientific studies at a place of which the Council approves. Now, the Council does not apparently approve of all the institutions which after investigation have been accepted as suitable places of study by the two Royal Colleges in question; and the latter, who are just as anxious as the former body to maintain a high standard of education, resent the supervision of their choice by the Council. It seems a small matter, but from the point of view of the Colleges it does involve a principle for which they are perhaps scarcely to be blamed for striving to maintain, except in so far as they may be setting a bad example in opposing constituted authority. No one can say that the Colleges are not just as competent to recognise good from bad schools as is the General Medical Council; they have within their bodies some of the most prominent and experienced medical teachers in the country, whilst their diplomas are deservedly recognised as of high value. The principle at stake in their view is one which is common to all corporations and universities—namely, the right to frame their own regulations of study required from candidates for their diplomas and degrees. And so long as instruction in these preliminary scientific subjects is considered as part of medical education, every medical licensing body technically has the right, if it chooses to exercise it, of determining from what scientific institutions it shall receive certificates.

Until this country has a State diploma-granting body it is hopeless to expect equalisation in the value of diplomas, and regrettable as it may be for individual corporations to take their own line in these matters we fail to see how it can be avoided under present circumstances. We trust, however, that an amicable settlement of this particular matter will be arrived at between the Colleges and the Council. There ought to be a way out of the *impasse.* The General Medical Council, for instance, might "gracefully concede" its approval of all scientific institutions selected by the Royal Colleges, or it might boldly declare that these subjects are no longer to be considered part of the medical course and place them on their proper footing of "preliminary education." In that case we conceive that corporations will hardly dispute the right of the Council to make its own regulations and requirements for a preliminary scientific examination to be passed not earlier than 12 months from the date of the preliminary examination in arts. This may seem to some educational authorities, especially those who feel that medical education in this country is not scientific enough, to be a retrograde step. But it is only in accordance with the tendency of the age, and for our part we do not think that many medical schools will be sorry to be relieved of the burden of teaching elementary science that they may be enabled to devote their energies to the sciences as applied to medicine. After all it will only be doing what the University of London has done for half a century, only the University does not even care where its candidates pick up their science so long as they can pass the preliminary scientific examination. It is true that the University enforces its right of testing the candidate's knowledge by its own examinations, whereas the Colleges and other corporations accept the tests of other bodies as evidence of sufficient knowledge. But if it were recognised by the Council as a purely preliminary study there is no reason that we can see why the selection of the test sufficient to qualify for registration should not be given over to that body just as is now practically done in the case of the earlier arts education. We make the suggestion in all seriousness and trust that it will not be deemed unworthy of consideration by the General Medical Council and the bodies represented thereon.

Coincident Typhoid and Malarial Infection.

SINCE WOODWARD in 1862 introduced the term "typho-malarial fever" there has been a long-waged controversy in medical literature on the question of the existence of such a disease and its nature. In the Johns Hopkins Hospital Reports, vol. viii., 1900, is a very interesting contribution by Dr. J. P. LYON of Buffalo on the subject, but the author prefers to discuss the matter by considering the coexistence of typhoid and malarial infection in the same subject, and the clinical picture resulting from such a combined infection rather than to adopt the term to which we have referred—"typho-malarial fever." He points out that so long as the exact cause and nature of both typhoid fever and malarial fever were unknown it was not a matter of surprise that little headway was made toward solving this problem. But as the cause and nature of these diseases have been established by scientific demonstration investigators are more in a position to settle the controversy.

Dr. LYON has carefully collected from literature 29 cases which have been thoroughly investigated, and he adds a case that was under his own care in the Johns Hopkins Hospital. He likewise discusses the various views which have been brought forward in favour of the term "typho-malarial fever," a term employed by WOODWARD, a surgeon in the United States Army, to describe cases of fever which presented a clinical picture neither of typhoid fever nor of malarial fever, but apparently a compound of both. In 1876 the same observer read another paper at the meeting of the International Medical Congress in Philadelphia, in which he maintained that "typho-malarial fever is not a specific or distinct type of disease, but the term may be conveniently applied to the compound forms of fever which result from the combined influence of the causes of the malarious fevers and of typhoid fever." Dr. LYON therefore examines his series of 30 cases to extract from them what evidence they offer on the subject of the so-called "typho-malarial fever" and on the question of the relative frequency of the combined infection. The descriptions of the clinical aspects have hitherto been supplied mainly by American and French observers, and a marked difference is found between them. For instance, American physicians maintain that rose spots seldom develop; that the course of the fever is shorter and markedly milder than that of typhoid fever; and that the prognosis is consequently highly favourable and the mortality is very low. On the other hand, most of the French writers state that the course of the disease is usually severe and the mortality high; that complications are common; and that rose-spots usually appear. Dr. LYON concludes that, as a rule, the course of the disease is of at least average severity as compared with typhoid fever, and generally of greatly increased severity. The mortality in his series was high—in fact, it was about double that of typhoid fever, basing the statistics of typhoid fever on a large number of cases collected through a long period of years from different climates and regions of the world. With regard to the clinical picture no uniformity was found. The typhoid picture, however, was always present and in nearly all of the cases dominated the scene. The malarial manifestations appeared at different points in the different cases. Repeated paroxysms of chill, fever, and sweating at the onset of the disease appeared in many of the cases; in others these features were absent. Occasionally febrile paroxysms occurred during the height of the disease and irregularly through its course, though this was the exception. In most cases the malarial paroxysms occurred only in the convalescence from the typhoid fever. It is interesting to note also that in several cases malarial paroxysms directly preceded or accompanied the onset of the typhoid fever, disappeared completely during its course, and again reappeared during convalescence. This would seem to indicate, as BACCELLI, LAVERAN, and others have suggested, that the typhoid fever is the more masterful disease, and to illustrate the truth of the old adage, "De duobus morbis corpus unum obsidentibus potior alterum obscurat." Dr. LYON points out, however, that the important fact must not be forgotten in this connexion that quinine was freely used against the malarial element whenever it appeared, and in all probability, in some cases at least, completely changed the clinical picture that would otherwise have been manifested. He is convinced that had the malarial involvement been left untreated to pursue its own course the composite clinical picture would have been occasionally very different from what it actually was after quinine had removed the malarial participation in the course of the disease.

The series of cases studied by Dr. LYON strongly supports the observations of the French writers who have described a "typho-malarial fever," and he believes that this fever is a true coincident typhoid and malarial infection; but the "typho-malarial fever" described by the American writers as being so prevalent in the United States, and especially in the Southern States, is not, he says, as a rule, a true combination of typhoid fever and malarial disease. The important point of difference clinically between the "typho-malarial fever" of American and French physicians is found in the severity and mortality of the disease. The statistics of the United States army during the Civil War show the mortality from "typho-malarial fever" to have been less than one-fourth of the mortality due to simple typhoid fever. Dr. LYON is therefore quite justified in concluding that the "typho-malarial fever" reported during the Civil War was not true combined typhoid and malarial fever, but either, and usually very mild, typhoid fever or continued malarial fever. Dr. LYON's remarks are well worthy of careful perusal. He selected his cases with great care; they were all proved to be cases of combined typhoid fever and malarial infection by the existence of the parasites of malarial disease in the blood and by strong evidence, clinical, pathological, and bacteriological, of true typhoid fever. All the more recent investigations go to show, then, that the term "typho-malarial fever" to express a distinct disease should be dropped; and the fact that the combined infection does exist fully explains those cases of typhoid fever with a high mortality and abnormal temperature chart which are met with in regions where the malarial poison is rampant.

The Etiology of Cancer.

IN the May number of the *American Journal of the Medical Sciences* appears a very important paper by Dr. HARVEY R. GAYLORD on the Protozoon of Cancer. It is now many years since the idea first arose that malignant disease might be caused by the local action of some micro-organism. Most of the earlier observations did not lead to any definite result. Nearly all the attempts at cultures were unsuccessful, but in 1887 SCHEUERLEN described a special bacillus, and KUBASOFF claimed to have produced secondary growths after the injection of a bacillus which had been obtained from a case of carcinoma. As these results were not confirmed by other observers it was concluded that these organisms were due to accidental contamination and that they were in no way connected etiologically with the malignant disease. The opponents, moreover, of a microbic origin of cancer were very emphatic as to the unlikelihood of any organism being the cause of carcinoma, and they claimed that no theory could be formulated which would account satisfactorily for all the phenomena of the occurrence and the progress of malignant disease. They explained, to their own satisfaction at least, all the facts connected with cancer by ascribing them to alterations in the nutrition of the organs involved or to a loss of the control of the nervous system.

Although many of these explanations were specious, it was felt by other observers that a microbic cause would better serve to account for the mode of occurrence and growth of the disease. Without laying too much stress on "cancer houses" and similar phenomena, pathologists recognised that the geographical distribution of cancer was in itself sufficient to discredit the idea of a nervous etiology, and the suggestion that the cause of the disease might be microbic, and yet that the organism might not belong to the class of bacteria, served to stimulate speculation and investigation. Histological observations showed within many of the cells of new growths various abnormal appearances which were explained by the supporters of the microbic origin of the disease as due to the presence of organisms, while their opponents as firmly held that they were nothing but degenerated cells. Most of those who acknowledged the parasitic nature of these cell inclusions were inclined to refer them to a branch of the protozoa—namely, the sporozoa or psorosperms, as they are frequently called. The coccidium was the genus to which the supposed micro-organism of carcinoma was ascribed, and, indeed, the coccidium is parasitic in many animals, and in rabbits does produce tumours in the liver, but these tumours bear no resemblance to carcinomata. Psorosperms have definitely been found in Paget's disease of the nipple, and this disease invariably leads to cancer of the breast if allowed to continue unchecked; or, rather, it may be looked upon as malignant from the commencement. All observers, however, have not agreed in considering these special hyaline bodies to be members of the class of protozoa, for there has been on the part of many a disposition to look upon them as yeasts. In 1890 RUSSELL described some spherical bodies in cancerous growths which were best demonstrated by the aid of fuchsin, and so he gave them the name of "fuchsin bodies." He considered that they belonged to the yeast group. In 1898 SANFELICE of Sardinia published a series of articles which went to prove that the parasitic inclusions found in cancer were identical in appearance with yeast organisms which had been injected into the tissues of animals, and he described some tumours which he had produced by inoculation with a yeast. One yeast which SANFELICE obtained from the skin of a lemon produced granulomata when injected into animals, and after the organism had been passed through several dogs its virulence had much increased, and when this yeast was injected into the breast of a dog it was followed after some months by the appearance of a true carcinoma. SANFELICE, however, was unable to obtain cultures of the organism from this growth.

In 1899 an article by PLIMMER appeared which described a new method of staining for showing these cell inclusions, and by this method he was able to demonstrate conclusively many facts in connexion with these bodies. His statements were based on the examination of 1278 specimens of cancer, and in 1130 of these he found the bodies which he considered to be parasites In one instance PLIMMER was able to obtain a culture from a cancer; it was from a rapidly-growing carcinoma of the breast and it proved to be a yeast. Several other observers have also claimed to have found yeasts in cases of carcinoma. This represented the state of our knowledge when GAYLORD took up the investigation of the subject in the New York State Pathological Laboratory. The first portion of the work was a systematic investigation as to whether PLIMMER'S bodies occur invariably in all malignant growths, and it was found that in all the cases of carcinoma which were examined PLIMMER's bodies were uniformly present. In all these tumours RUSSELL'S fuchsin bodies were also seen in large numbers. In attempting to determine the nature of PLIMMER'S bodies it soon became evident that many observers have described these structures. The variations which occur in the illustrations depend probably on the different methods of hardening and staining employed by the different investigators. So it is obvious that PLIMMER'S bodies are not new structures, but his hardening and staining methods give them a more uniform appearance and apparently enable them to be recognised in some cases where the ordinary methods give no results. GAYLORD was unable to demonstrate the identity between PLIMMER'S bodies and transformed yeast organisms, and he concluded that they are not yeast cells. In a case of carcinoma of the abdomen GAYLORD found in the peritoneal fluid a number of minute, homogeneous, pale spherical bodies which were at first taken for droplets of fat, but it was soon seen that their refractive index was too low for fat. They were also unaffected by ether and by solution of potash, and did not stain black with osmic acid. Some of these bodies were injected into the jugular vein of a guinea-pig and when the animal was killed a month later a carcinoma of the lung was found. The first attempts at cultivating these organisms were not successful, but later better success was obtained, and it was found possible in many cases to cultivate them directly from cancerous growths and from fluids in contact with cancer. The development of the organisms was watched and they were seen to throw out pseudopodia, to develop a nucleus, and to become spore-sacs. These bodies are those described by PLIMMER and are best differentiated by his method of staining. It was further found that RUSSELL'S fuchsin bodies were the smaller spheres which were more resistant to fixatives. GAYLORD is satisfied that the organism is a protozoon and not a yeast.

We have been able to give but a very brief account of these recent investigations, but the care and skill with which the researches have been carried out must be apparent to all who read Dr. GAYLORD'S interesting paper, and though it would be premature to express any decided opinion until the investigations have been confirmed by other observers, yet the results are very probable and serve to explain and to reconcile many observations which were apparently inconsistent. Should they be confirmed, a very decided step will have been taken in the pathology of malignant diseases, and though a knowledge of the etiology of a malady is very far from being a knowledge of its cure, yet we may reasonably hope that a full acquaintance with the mode of causation of cancer will assist us greatly in preventing the occurrence of the disease.

Annotations.

"Ne quid nimis."

LUXURY IN DIET.

IT is a well-known fallacy that eating is necessarily feeding, but there is no doubt that many individuals eat an average daily amount of food far in excess of what is really required in order to sustain the vital processes. That being so, the waste of food is very great, for the digestive organs are not able to deal with, or to appropriate, the large quantity of food which a person is tempted by his appetite to take. This is one aspect of the question of economy in food which deserves consideration, and undoubtedly if more attention were given to the rational relationship of appetite to the needs of the system we should be all the better for it. But there is another aspect of the question equally worth considering, and that is in connexion with luxurious foods. Of course, the wealthy man pays a good deal more for his breakfast, luncheon, and dinner than does the poor man, but is Dives physiologically and physically speaking any better for it? We doubt it. Plain food is, on the whole, more acceptable to the economy than are rich morsels. It is very questionable whether from the strictly nutritive point of view champagne and oysters are after all in health an advance upon ginger-beer and cockles, whether turtle is preferable to calf's head, or caviare to soft herring roe, or plovers' eggs superior to the ordinary eggs of the barndoor bird. But there is a vast difference between the price of champagne, say at 10*s.* a bottle, and ginger-beer at a penny a bottle, and between oysters at 3*s.* 6*d.* a dozen and cockles at 50 for a penny, and between turtle soup at 10*s.* 6*d.* a pint and calf's head soup at 6*d.* a plateful. We shall be pretty correct in stating that the man who buys common eggs instead of plovers' eggs, and calf's head instead of turtle, and a pigeon instead of a partridge, is the gainer, at any rate from the economically nutritive point of view. In other words, the price of an article of food by no means sets upon it its food value and the difference represented between the price of champagne and ginger-beer, between that of oysters and cockles, &c., is the price paid for pleasing the palate, which extravagance is probably the penalty of a mental rather than of a bodily demand. But physiologically it is akin to substituting diamonds for coals in the steam-engine. Luxurious foods are, strictly speaking, creature comforts, while plain foods are bodily necessities. It must be admitted, however, that, as a rule, choice-tasting game and meats are necessarily tender and therefore easy of assimilation. But clearly there must be a limit to the appropriation of food by the body, and this limit may be reached just as easily by means of good, plain, and tender food as by food of a rarer sort. According to this view there must be great physiological extravagance going on from day to day. In the matter of beverages the same sort of extravagance occurs. Enormous prices are given for a particularly choice wine, but here, again, it is practically certain that the human economy gains little or nothing by it. Does the man who drinks a claret of choice vintage at, say, 10*s.* a bottle obtain any material advantage over the man who drinks his shilling bottle of *vin ordinaire?* It is doubtful. In any case, the prices asked for wine at big hotels are so monstrously high and the wine offered is so often bad that this fact alone accounts for an increasing demand for whisky as a dinner beverage. There are obviously considerable physiological sin and wantonness committed in the choice of food and in the quantity consumed.

THE METROPOLITAN WATER-SUPPLY.

THE Water Examiner to the Local Government Board has
issued his report on the condition of the metropolitan water-
supply during the month of March. The Thames water
was coloured and turbid during the first 12 days of the
month, and from the 1st to the 8th of the month the engineer
of the Chelsea Company closed the intake from the river.
According to the statement which he has supplied the
Thames water was of "indifferent" character on the 1st of
the month and "bad" from the 2nd to the 8th, both days
inclusive. It is very much to be regretted that Dr. T. E.
Thorpe, the chemist appointed by the Local Government
Board to examine the quality of the London water-supply,
did not make a full analysis of the water supplied by each
company during the period in which the river was in flood
and the water was turbid, [illegible]ation of [illegible] East London Water Company
has no subsidence rese[illegible]ortant point of di[illegible] Thames supply, and
at the period when the[illegible]arial fever" of A[illegible] considered by the Chelsea
Company's officer to b[illegible] the severity a[illegible] that it should not be taken
at all the East Lond[illegible] of the United [illegible] Company was presumably taking
similar water and pump[illegible] mortality fro[illegible] it directly to its filter beds at
Hanworth. If this wa[illegible] the fact it would have been
interesting to learn w[illegible] than one-fourth of [illegible] the quality of the water supplied
from the Hanworth filter. Dr. LYON [illegible] actually was. Dr. Thorpe

full analysis of one specimen of the water of each company was made on March 18th, and the specimen taken of the East London Company's water came from a cab-rank in Shoreditch. It is not too much to say that the quality of the water filtered at Hanworth on March 2nd is not to be gauged by the quality of the water supplied at a Shoreditch cab-rank on the 18th of the same month. The average daily amount of water supplied by the metropolitan companies was 195,914,944 gallons which it is estimated represents a daily consumption of 31·63 gallons per head. The average daily amount per head supplied by the Chelsea Company was slightly more than that given in the corresponding month of the year 1900, but in the case of all the other companies the daily supply per head was less than it was in that year. During the month under review the number of new supplies given by the water companies was 2045, but no information is given in the report as to the districts in which this extension has taken place. Although all the water companies are under a statutory obligation to give constant service to all their customers, this duty is still flagrantly neglected and the report shows that the Lambeth Company gives a constant supply in only 76 3 per cent. of the total number of its supplies. This company is privileged to exact a higher water rental than is permitted in the case of any other metropolitan company. According to the analysis of Dr. Thorpe the Grand Junction Company has supplied water containing the highest proportion of organic carbon. The same company has supplied also the dirtiest water, or, to adopt the polite euphemism of the Water Examiner, that containing "the deepest average tint of brown." The report states that the average rate of filtration per square foot per hour adopted by the company was 1·12, this rate being more rapid than that in use by any of the other companies. The reservoir capacity of the Grand Junction Company is undoubtedly another cause of the unsatisfactory quality of the water supplied. In the case of the Grand Junction Company the reservoirs for the storage of unfiltered water are sufficient only to contain an amount equal to 2 9 days' supply, whilst the West Middlesex Company has storage capacity sufficient for 18 7 days' supply.

GERMAN SCIENTIFIC AND MEDICAL LITERATURE IN THE EIGHTEENTH CENTURY.

THE *Frankfurter Zeitung* in a recent issue publishes an elaborate and, from the point of view of the historian, a well-studied account concerning literary publications in Germany during the eighteenth and the last century, and we note with satisfaction that special prominence is given throughout by the writer of this highly interesting and instructive composition to medical and scientific literature. Without entering into any special details it deserves to be pointed out that during the eighteenth century the increase in the output of books was more or less gradual and reached its acme in the years immediately preceding the French Revolution. The year 1786, however, stands out as by far the most prolific both as regards the publication of books in general and especially the inauguration of the use of the more comprehensive scientific treatises commonly called "Handbücher." In that year the number of books published amounted on the whole to several thousands; of these there were: purely medical, 275; scientific (chemistry and physics), 162; political and physical geography, 147; and mathematics, 49. It is interesting to record that there were, in addition, some 135 journals already in existence; they were, it is stated, founded exclusively for the purpose of publication of matter of a purely literary and scientific character, and they are still to a considerable extent preserved in a good condition in the library attached to the University of Leipsic; moreover, we are informed that both a classified index and a subject catalogue are kept there separately to facilitate reference to this rather old fund of learning. In connexion with this statement it may be of interest to observe that Leipsic, which still has a world-wide reputation for great literary enterprise, was then almost the only publishing centre in Germany.

THE BIRMINGHAM CONSULTATIVE INSTITUTION.

THE honorary secretary of the Birmingham Consultative Institution has published certain resolutions approved by his committee under which the institution guarantees (1) that in the future all advertisements will be avoided; (2) that none of the promoters will receive financial benefit from the operations save the medical staff; and (3) that only those patients will receive attention whose means warrant their recourse to the institution. In these circumstances applications for appointments are invited from the medical profession. We recommend our readers to wait before applying for these posts. The medical profession in Birmingham do not consider that a Consultative Institution is in the least required in their city and our opinion is the same The consultant surgeons and physicians of Birmingham, men with hospital practices and other claims to large and special experience, have offered to see all cases which are introduced to them by medical men as deserving of the concession at greatly reduced fees, so that there is no necessity for an institution managed by laymen to meet the wants of those who in the opinion of laymen can afford to pay only low fees. The institution proposes to provide by an elaborate machinery facilities that have already been offered to the Birmingham public by the medical profession. We shall not be surprised if the medical profession of Birmingham receive with coldness their professional colleagues who accept posts under the lay managers of the Birmingham Consultative Institution.

HEREDITY AND DENTAL DISEASE.

AT the last meeting of the Odontological Society of Great Britain a paper was read by Mr. Norman G. Bennett entitled Heredity and Dental Disease. As an introduction to the more special details connected with the teeth and jaws the author briefly reviewed some of the facts of inheritance and the theories which have been enunciated from time to time to account for such facts. The hypothesis of the continuity of the germplasm, so strenuously upheld by Weissmann, received particular attention on account of the importance of the corollary deducible from it which affirms the impossibility of characters acquired during the life of the individual being transmitted. Mr. Bennett remarked that a striking divergence of opinion existed on this point among the leading workers in the different fields of biology. He proceeded to trace the history of the human jaws so far as it is known, commencing by referring, for purposes of comparison, to the chief peculiarities of the simian type of jaw, and then describing the various interesting discoveries of human remains of palæolithic and neolithic periods, including jaws and teeth, which have been made at different times. A further comparison with the different types found among the lower races at the present day showed how gradual had been the diminution in the degree of prognathism and the dental suppression by which had been evolved the jaw found in the modern examples of the Aryan races. The explanations supposed to account for these changes were discussed, and while accepting as possible factors in the process such influences as sexual selection and the mixture of races Mr. Bennett argued that these were probably incapable of accounting for all the facts which presented themselves. He pointed out the difficulty of believing that disuse could have any effects on calcified tooth structure in causing a modification which might be perpetuated by inheritance, except on the supposition that diminished nutrition in the smaller jaw occasioned gradual abortion of the wisdom tooth in the cramped space available for it. With regard to the jaw itself, the inherent probability of diminution owing to the accumulated inherited effects of disuse was greater. Mr. Bennett devoted considerable attention to the views expressed by Dr. J. Sim Wallace in some recent articles on the etiology of dental caries. He was unable to support Dr. Wallace's theories (1) that the size of the jaw was the direct expression of the size of the tongue and that the latter frequently did not attain its full development owing to the removal of the fibrous portions of the food-stuffs by civilised peoples; and (2) that the diminution in the size of teeth was occasioned by decreased liability to caries incident to these variations and the consequent survival of the individual. Mr. Bennett brought many arguments to bear in opposition to most of Dr. Wallace's contentions and went on to point out how the theory of "regression towards mediocrity" propounded by Galton and supported by Russel Wallace might be invoked to explain most of the facts of degeneration of the teeth and jaws without assuming as a fact the inheritance of acquired characters; but in concluding this part of his paper he expressed the view that a verdict of non-proven was the only possible one at present. The second part of the paper was concerned with the researches of Dr. Black on the strength, density, and percentage of lime-salts in human teeth, and Mr. Leon Williams's demonstrations of the earliest stages of dental caries and the bearing of these investigations on current views. Mr. Bennett deprecated the tendency of many odontologists to accept the inference that the variability of susceptibility to dental caries must of necessity be sought for outside the teeth themselves, and he showed that, even if Dr. Black's observations were accepted in their entirety, such a conclusion was not the logical outcome. While believing that the ever-varying condition of the oral fluids might be a most fruitful subject for investigation, yet he urged the view that there might be, and probably were, physical and molecular differences between teeth the chemical composition of which was shown to be as nearly as possible identical, and that associated with such differences there might be correlated a dissimilar degree of susceptibility to the micro-organisms of dental caries.

REMARKABLE EXPLOSIONS AT MANCHESTER.

ON May 3rd a series of violent explosions took place in Sandal-street, Bradford-road, Manchester. The district contains a number of chemical works. An inquiry will no doubt be held as to the cause of the explosions, but it is said that "quantities of the noxious vapours generated in the processes carried on in some of these works find their way into the sewers, and it is to this cause that the explosion is at present attributed." A little before 3 P.M. the ironwork of the manhole at the foot of Sandal-street and the heavy stone setts surrounding it were suddenly blown into the air with a loud report. This was succeeded by a similar explosion at the next manhole, followed quickly by others, till all the manholes covering a distance of nearly 400 yards had been destroyed. In two adjoining thoroughfares manholes were blown up, "and in each case eye-witnesses state that the explosion was followed by a flame of considerable height." A very offensive odour accompanied the explosions. Although this part of the neighbourhood is thickly populated no one was hurt owing to the children being in school and their parents in the mills and works. The operations carried on at the various works are many and unsavoury. They include tar-distilling, the manufacture of sulphuric acid and sulphate of ammonia, benzol rectifying, the manufacture of paint and varnish, the treatment of gas products, oil-distilling, and other similar manufactures. The residents have often complained of nuisances. It is said that sulphuretted hydrogen has been found to be given off in the sewers. The inspectors have discovered, it is stated, that spent acid from benzol was being put into the sewers, which coming into contact with spent ammonia liquor gave rise to an evolution of sulphuretted hydrogen. In May, 1898, the medical officer of health, with an inspector, found a quantity of naphthalene in two of the manholes. Creasote has also got in from a tank having been allowed to run over. People have complained that the noxious vapours have got into their houses from the sewers, and on one occasion there was an explosion in a kitchen, when the flooring was torn up and much damage was done. The dwellers in this evil-smelling and dangerous neighbourhood look on this last exploit of the imprisoned gases as being perhaps a blessing in disguise, and hope that at last definite steps will be taken by the authorities "to remedy the dangerous conditions in which they live and of which they have long complained."

THE FESTIVAL DINNER OF THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

ON Wednesday next, May 22nd, the festival dinner of the Medical Graduates' College and Polyclinic will be held at the Hotel Cecil. No pains have been spared to make the occasion a successful and even a remarkable one. Mr. A. J. Balfour in the chair will be supported by some 400 gentlemen interested in the welfare of the institution, and among the speakers will be the new Bishop of London, Sir William Broadbent (the President of the Polyclinic), Lord Strathcona, and the Duke of Marlborough. The efforts of these speakers will be openly directed towards obtaining for the Polyclinic a large sum of money and as the orators will have at the table with them some of the richest and most open-handed citizens of the empire we may feel confident that a substantial result will be obtained. The Polyclinic, as we have said on previous occasions, fills a gap in the medical education of this country. If it had a substantial endowment its uses as a central school for post-graduate students would be so immediately recognised that the students would themselves by their numbers supply the income necessary to carry on the work. That, at least, is our belief and that of the promoters. But in spite of the notable generosity of not a few lovers of science the institution has never been placed upon a substantial pecuniary basis. We should be glad if the festival dinner should prove a turning point in its fortunes which have hitherto not been proportional to its merits or to the labours bestowed upon its working.

UNILATERAL CLUBBING OF THE FINGERS.

AT the meeting of the Société Médicale des Hôpitaux of Paris on March 22nd Dr. Béclère described a case in which the curious condition of clubbing of the fingers of only one hand was present. The left hand was normal; the right had the appearance shown in the third stage of pulmonary tuberculosis; the terminal phalanges were much enlarged and the nails were convex longitudinally as well as transversely. Radiographs showed that this enlargement was confined to the soft parts and that the bones were not affected—the usual condition in clubbed fingers. The patient was a man, aged 65 years, who had a pulsatile swelling of the size of a large egg in the right subclavicular region—no doubt a subclavian aneurysm. He could not state the time of the onset of the swelling, but he was very definite as to that of the deformity of the fingers; it began a year previously, a little after the appearance of severe pains in the right shoulder which radiated into the neck and hand. At this time, according to the patient, the hand was swollen and violaceous and the subclavicular region more voluminous than when he came under observation. Dr. Béclère thought that the subclavian artery, and probably vein, had been the seat of acute inflammation which led to permanent narrowing of the latter. This hypothesis was confirmed by the fact that while at rest the hands were of the same colour, but on exertion the right became slightly cyanosed. The right radial pulse was only a very little weaker than the left. Dr. Béclère showed that the pathogenesis of this unilateral clubbing of the fingers was comparable to that present in congenital cyanosis due to stenosis of the pulmonary artery. In the latter condition the vessel which carries all the blood from the tissues of the body to the lungs is narrowed. As a consequence of the prolonged retention of substances to be eliminated by the lungs, principally CO_2, a chemical modification of the plasma which bathes the tissues of the periphery is produced. In the present case the obstruction to the venous circulation was local instead of general and therefore produced a local result. Dr. Béclère further suggested that in a similar manner the clubbing of the fingers in pulmonary diseases—phthisis, sclerosis of the lungs, and pleural effusion—is due to the narrowing or obliteration of some of the divisions of the pulmonary artery, which produces the same mechanical effect as narrowing of the artery itself.

LEGISLATION ON PENNY ICES: A GOOD EXAMPLE.

THE corporation of Brighton has presented a measure which has just been accepted by a committee of the House of Commons. Though this is a matter of local legislation there is a clause which might with great advantage be embodied in the sanitary Acts that govern the entire kingdom. The Bill proposes to inflict a penalty of 40*s*. on any manufacturer or dealer in "ice-cream, hokey-pokey, or other similar commodity" who stores such articles in any room or cellar in which there is an opening to a drain or who, in the manufacture, sale, or storage of ice-creams, &c., does anything likely to expose them to infection or contamination. Further, it is provided that the corporation shall keep a register of makers and dealers in wares like ice-cream, and that any unregistered person who shall deal in these articles within the borough will render himself liable to a penalty of £5 and a daily penalty of 40*s*. For more than 20 years we have insisted that some such measure was necessary. We have described the homes of some of the Italian itinerant vendors, organ-grinders, and penny-ice men; we have shown how the various constituents are left exposed in small back-yards by the side of overflowing dust-bins and closets of unspeakable foulness. That bacteria may accompany the dust blown over the surface of the milk is obvious, and thus are the delicacies of the poor readily contaminated. That an industry carried out under such conditions should be qualified as an unwholesome industry is but natural, and it would be a farce to talk of controlling unwholesome industries if this were not included in the list. On the other hand, there is no reason why a thoroughly wholesome and good ice should not be provided for the modest sum of 1*d*., particularly if it is sold from a barrow—that is to say, if the cost of production is not weighed down by the expense of keeping a shop. Still, the question arises as to where these ices are to be made. The street-vendors are by poverty driven to live in premises altogether unsuited for the storing and the production of such articles as ices. Where, then, are the ices to be manufactured? We would suggest that some arrangement might possibly be made with a model dairy or that special premises should be provided on the outskirts of the town where the purveyors could go in the morning, purchase the milk and eggs, make the ices on the spot, and in the evening return to these premises and there store their carts. For these facilities they could be charged a small rent. It would not then so much matter where they lived and slept. If all the ices were made and stored at one or two suitably constructed depôts the industry would be under thorough sanitary control. The poor might then still continue to enjoy their penny ices, the vendors might still hope to earn a livelihood by producing these modest luxuries, and parents would no longer be harrassed by the fear that their children ran the risk of being poisoned by the penny-ice man.

THE CORONERSHIP OF THE CITY OF LONDON.

THE medical men at present offering themselves to the Court of Common Council as candidates for the coronership of the City of London are Mr. J. S. E. Cotman, Dr. Major Greenwood, Dr. Bernard O'Connor, and Dr. F. J. Waldo. Mr. Cotman is a member of the London County Council but has no legal qualification. Dr. Greenwood is the medical officer to the General Post Office and a barrister. Dr. O'Connor is also a barrister. Dr. Waldo, a barrister and medical officer of health of the Inner and Middle Temples, was lately medical officer of health of Southwark, where he did vigorous and fearless work for the public. He was runner-up to Dr. Collingridge for the appointment of medical officer of health to the City of London. We have also seen it announced that Dr. W. R. Smith, medical officer of the London School Board, will offer himself for election to the vacant post.

LEUCOCYTOSIS IN TYPHOID PERFORATION.

THE importance of the study of the symptoms of perforation in typhoid fever with a view to early operation has recently been brought before the profession by Professor Osler.[1] One of the symptoms of perforation is leucocytosis, but its value yet remains to be appraised. In the *Boston Medical and Surgical Journal* of April 18th an important paper on this subject based on observations made in the Montreal General and Royal Victoria Hospitals has been published by Mr. Colin K. Russell. Leucocytosis must not be accepted off-hand as proof positive of perforation even when perforation has been previously suspected, for other conditions resembling it may produce leucocytosis. Conversely, in perforation the number of leucocytes in the blood may be diminished. In 37 examinations of the blood in uncomplicated cases of typhoid fever the leucocytes varied between 2000 and 12,000 per cubic millimetre, the average being about 6500. To obtain as uniform results as possible the counting was done at times remote from digestive periods. The following case, in which the signs of perforation were otherwise doubtful, shows the value of leucocytosis. A boy, aged seven years, on the tenth day of an ordinary attack of typhoid fever, complained of gradually increasing pain in the abdomen, especially in the right lower quadrant. There was no alteration in the pulse or temperature or rigidity or distension of the abdomen which showed only slight general tenderness. Vomiting occurred once. Four different examinations of the blood showed an average of 28,000 leucocytes per cubic millimetre. A few hours later there was thought to be slightly increased rigidity of the abdomen. Laparotomy showed a perforation near the mesenteric attachment of the ileum which was sutured. Recovery followed. In another case of perforation leucocytosis was absent. On the sixteenth day of the disease there were 6100 leucocytes per cubic millimetre. Four days later the classical signs of perforation suddenly developed, but the blood-count showed only 4800 leucocytes per cubic millimetre. The perforation was sutured, as also were six other ulcers which had nearly perforated, but the patient succumbed. In a third case pain suddenly appeared in the abdomen on the fourteenth day, chiefly in the left lower quadrant. The pain gradually increased and within 32 hours marked rigidity was present. The leucocyte counts gave an average of 14,500 per cubic millimetre. But laparotomy revealed neither perforation nor peritonitis. Recovery followed. In a number of other complications of typhoid fever leucocytosis was found. In one patient in whom only simple bronchitis could be discovered there were 20,000 leucocytes per cubic millimetre, in a case of cholecystitis 13,000, and in one of general sepsis 13,000. Mr. Russell draws the following conclusions: (1) in perforation leucocytosis is the rule, but it varies widely; (2) it usually appears early, but may not be marked until general peritonitis and collapse have supervened; (3) it may be absent in marked perforation and peritonitis—in fact, the number of leucocytes may be below normal; (4) typical signs of perforation and leucocytosis may be present without any such complication; and (5) if abdominal pain and tenderness come on suddenly and if in the absence of other complications there is distinct leucocytosis, even without other signs of perforation, operation is justifiable and may be advisable.

---

[1] THE LANCET, Feb. 9th, 1901, p. 353.

A "TUBE" DANGER.

It is obvious that every possible precaution should be taken to prevent any alarms on the electric underground railways, because if a panic arises escape from any seeming danger is well-nigh impossible. A case in point occurred in Paris last week. A stack of timber adjoining one of the stations of the underground electric railway by some means or other caught fire and a train emerging from the tunnel plunged into the flames. The engine-driver, however, was smart enough to let his train go on through the station instead of stopping it, with the result at any rate that the passengers escaped the dangers of fire. But the tunnel on the other side was full of smoke, a panic arose, and several persons were badly injured in the scramble to get out of the train and the tunnel. This accident emphasises, as we have said, the necessity of keeping the line of route quite free from the possibility of dangers of this incidental sort. Apart from the risk of receiving a powerful current along the track there is the risk also of being deprived of air unless the ventilation is very efficient. In the accident at Paris, however, it is probable that the efficiency of the ventilation or the effect of the heat-currents served to draw both flame and smoke into the tunnel. By the good sense of the guard the passengers were warned to keep off the electric cable—a warning which probably made the whole occurrence less disastrous than it might have been.

CONGENITAL MALPOSITION OF THE INTESTINES.

The following case, which is published in the *Intercolonial Medical Journal of Australasia* by Mr. R. Hamilton Russell, is of interest both on account of the rarity of the pathological condition and the peculiarity of the symptoms. A boy, aged 11 years, was admitted to hospital. When seen on the following morning he was found in bed in the "knee-elbow position" and moaning with abdominal pain. The eyes were sunken, the skin was dry and scurfy, and the body was wasted. With difficulty he was induced to lie on his back, when the abdomen was found to be retracted. Examination of the abdomen seemed to bring on an attack of colicky pain which caused him to resume the knee-elbow position. He then commenced to vomit bile stained fluid. The illness had commenced a fortnight previously with sudden abdominal pain and vomiting which continued more or less up to the time of admission. During this time the bowels acted only with the aid of enemata. At the age of three years an attack similar to the present one occurred. After six years of immunity another occurred. The practitioner who attended him said there was great difficulty in examining him on account of his "assuming a position like that figured to show the postural treatment of prolapsed funis." A month or two later another attack occurred which lasted three weeks. The mother "was sure the child was wrong inside." "His appetite had never been like that of other children; he often ate ravenously and craved for extraordinary articles." Some form of incomplete intestinal obstruction was diagnosed. As the child was seriously depressed and as he had recovered from similar attacks it was decided to postpone operation. An enema brought away a fairly copious motion. On the following morning he became collapsed and died. The necropsy showed deep congestion of the ascending and first part of the transverse colon and of the whole of the small intestine. The transverse colon was obstructed by the passage over it of a dense band. The exact anatomical condition could not be made out until the whole of the intestines had been removed from the body. The band was then found to be the first part of the jejunum together with the whole thickness of the mesentery, which took a sharp turn upwards to the right, passed in front of the transverse colon, then arched over and descended behind it. The entire small intestine was, so to speak, conveyed behind the ascending colon which was dilated and completely enveloped in peritoneum. This remarkable malposition of the intestines appears to have been of congenital origin and connected with the developmental migration of the cæcum. Mr. Russell suggests that the constant assumption by the child of the knee-elbow position was due to relief afforded from the pain which no doubt was chiefly caused by dragging upon the nerves of the mesentery. Similar cases of malposition of the intestines are rare. In The Lancet a case of congenital malposition which terminated in fatal obstruction was published by Dr. Florence Boyd.[1] The patient was a woman, aged 39 years, who was subject to attacks of abdominal trouble characterised by distension, tenderness, and visible peristalsis. Mr. Russell concludes that in his case an operation would have been futile, for it would have been impossible to have made out the condition present or to have remedied it by any feasible procedure.

"A LITTLE LEARNING."

We have often had opportunities to notice the peculiarly thorough ignorance of matters in the least medical which is exhibited by writers in the general press. It is quite right, of course, that these gentlemen, and the rest of the non-medical public for that matter, should not through mere idle curiosity dabble in medicine or play about hospital wards. It is far better for them to regard medicine as a necessary evil and to keep away from all that concerns it, relying on their medical advisers for instruction when necessary. This laudable ignorance of medical matters, though, should be reckoned with by an editor when any work is to be criticised that touches at all on this unvisited province. By the exercise of a little discrimination in this way we should be spared the quaint exposition of ignorance made by a contemporary whose critic talks of a "corner of the dissecting-room heavy with the smell of ether." The dissecting-room in this gentleman's mind—as in that of the great lady who was the foundation of one of Du Maurier's pictures in *Punch* where a young couple shudder at the idea of taking a house near a West-end hospital because of the "shrieks from the dissecting-room"—is evidently synonymous with the operating theatre. We can confidently assure him that the two places are quite separate and that though the latter may be "heavy with the smell of ether" the odour pervading the former is more commonly that due to various brands of tobacco.

---

[1] The Lancet, July 3rd, 1897, p. 8.

CHARING CROSS HOSPITAL: THE CHERE REINE LODGE OF FREEMASONS.

All Charing Cross Hospital men who are Freemasons will be pleased to hear that a warrant has been granted by Grand Lodge to found a lodge in connexion with Charing Cross Hospital. This lodge, the Chère Reine, No. 2853, will be consecrated on June 7th at the Hotel Cecil. Brethren who would like tickets for the ceremony or who desire to become joining members of the lodge are requested to communicate at once with Bro. Carter Braine, 67, Wimpole-street, W.

SUGGESTION AND HYPNOTISM IN THEIR RELATION TO JURISPRUDENCE.

Dr. Baron von Schrenck-Notzing of Munich contributes to the March number of the *Medico-Legal Journal* a valuable paper on the above subject based largely upon his own unrivalled experience in this field of psychological medicine. Criminal acts may be committed by hypnotised subjects while in the hypnotic stage, or by subjects in the state of wakefulness who had been previously hypnotised and influenced by suggestion to criminal acts. Moreover, the hypnotised subject may be abused or criminally wronged by the hypnotiser. Among criminal acts belonging to the last category attempts upon decency and morality occupy the first place. Such cases have been reported by Bellanger, Laurent, Ladame, Brouardel, Krafft-Ebing, and Schrenck-Notzing himself. "In all these cases there was always proved the undoubted existence of hypnotic sleep ..... for in order to carry out these crimes recourse had to be taken to the most profound hypnotisation, whereby the subject was deprived of the faculty of resistance or had become an automaton of the hypnotiser, and very often we had to deal with a condition of hysterical sleep or lethargy." Natural modesty and good bringing-up offer an undoubted resistance to sexual attempts and cannot be overcome by the help of a few opposite suggestions, whereas sensual temperaments are more easily seduced. There are all shades of difference between such resistance to criminal suggestion and absolute obedience. Two instances of sexual crimes committed under hypnotic suggestion came recently under notice and in a third instance also observed by Schrenck-Notzing a theft was committed under the influence of hypnotic action. Sexual attempts and theft constitute the majority of cases, but instances of abortion and of substitution of infants with the aid of hypnosis are not unknown. The suggestion of sickness to escape from military service is rare. Injury to health, especially mentally and morally, may be the result of hypnosis by laymen, professional magnetisers, and public performers who claim to work cures in this way. The dangers arising from taking part in magnetic *séances* and exhibitions of a semi-public character are not insignificant. After re-affirming the difficulty of inducing normal individuals of good *morale* and training to participate in criminal acts, even when induced thereto by hypnosis, Schrenck-Notzing refers to the greater importance of hypnotic suggestion in the condition of wakefulness. He quotes the case of the woman Sauter who was tried before the Court of Assizes at Munich in 1899. She was charged with the attempt to murder and with instigating several persons to murder. She was an ignorant woman under the influence of soothsayers and absolutely acquiesced in and attempted to carry out their suggestions. A full report of the case by Schrenck-Notzing was laid before the court and the woman was acquitted. It is pointed out that criminal suggestions in the waking state may have dangerous influence upon certain classes of persons—e g., infants, hysterical persons, and persons with an easily excited imagination. A case is reported of a nurse who suffered from a mania of destructiveness but who was unscrupulous enough to suggest to her charge, a little girl aged seven years, that the latter should confess to the misdeeds. During nine months the little girl voluntarily made herself the scapegoat, confessed to being the wrongdoer, and voluntarily bore every punishment without ever betraying her nurse. Persons who commit crimes suggested to them are rarely of perfectly sane mind. But the more a person is without energy or strength of will or is the subject of congenital moral defect the more potent does suggestion become. Certain nervous ailments, such as hysteria, neurasthenia, epilepsy, and certain critical epochs of life, as puberty, and the menopause, render individuals more prone to suggestion for good or evil

UNIVERSITY OF LONDON: THE STANDING COMMITTEE OF THE FACULTY OF MEDICINE.

A meeting of the members of Convocation of the University of London was held at the University's new building at South Kensington on Tuesday, May 14th, at 5 P.M. Sir E H Busk had been duly nominated for the appointment of chairman and Mr. H. E. Allen as clerk. Several alterations in the standing orders were proposed. The members of the standing committees were also elected. There were nine vacancies in the Faculty of Medicine and the little interest taken by the medical graduates in the proceedings of convocation under the new statutes is shown by the fact that four of the nine persons who have been duly nominated are connected with one medical school—viz , the London School of Medicine for Women.

A general meeting of the Medico-Psychological Association of Great Britain and Ireland will be held at 11, Chandos-street, Cavendish-square, W., on Thursday, May 23rd, at 3 P M , under the presidency of Dr. Fletcher Beach, when Dr. Charles Mercier will read a paper on "Punishment," and Dr R. P. Smith will deal with "A Case of Epileptic Homicide." Dr. D. G. Thomson will take for his subject "Senile Insanity." At two o'clock a number of slides showing the condition of nerve-cells and association fibres in cases of idiocy and juvenile general paralysis will be shown, and in the evening the members of the association will dine together at the Café Royal, Regent-street, W.

The annual dinner of the British Balneological and Climatological Society will be held at Limmer's Hotel on Friday, May 31st, at 6 30 P.M., under the presidency of Dr. Frederic Bagshawe. Communications should be addressed to one of the honorary secretaries, Dr. S. Sunderland, 11, Cavendish-place, W., or Mr. Shirley Jones, Droitwich. After the dinner the annual conversazione will be held at 20, Hanover-square, when Dr. I. Burney Yeo will give an address on Hepatic Inadequacy.

The annual meeting of the Association of Asylum Workers will be held at the Medical Society's House, 11, Chandos-street, Cavendish-square, W., on Friday, May 24th, at 4 P.M , Sir James Crichton-Browne, M.D. Edin , LL D., F.R.S. (President of the association), in the chair. All interested in asylum work and workers are cordially invited to attend.

Amongst the Australian Commonwealth honours recently bestowed at Melbourne by H.R H. the Duke of Cornwall we are glad to notice the name of the medical Mayor of Sydney. We congratulate Sir James Graham, M A., M.D. (gold medal) Edin., M.B. Sydney (*ad eundem*), on being created a Knight Bachelor.

THE opening lecture of the summer session at Brompton Hospital for Consumption and Diseases of the Chest will be delivered by Dr. J. Mitchell Bruce on Wednesday, May 22nd, at 4 P.M. Subject: "On the Diagnosis, Prognosis, and Treatment of Quiescent Tuberculosis."

SIR WILLIAM MAC CORMAC, Bart., K.C.B., K.C.V.O., has been elected a Foreign Associate Fellow of the College of Physicians of Philadelphia, the oldest medical body in America, having been founded by Benjamin Rush and other distinguished men in 1787.

AT the meeting of the University Court held in Carmarthen on May 10th Dr. Isambard Owen was for the seventh year in succession elected Senior Deputy Chancellor of the University of Wales.

THE Metropolitan Counties Branch of the British Medical Association will hold a conversazione in the Natural History Museum, South Kensington, at 8.30 P.M., on Wednesday, June 12th.

AN extra meeting of the Pathological Society of London will be held at Oxford on Saturday, July 6th, upon the invitation of Sir John Burdon Sanderson and Dr. J. Ritchie.

THE newly-appointed Bishop of Oxford, the Very Rev. Francis Paget, D.D., Dean of Christ Church, is the second son of the late Sir James Paget, Bart., F.R.C.S.

THE King has nominated Sir John Williams, Bart., M.D. Lond., to be a member of the General Medical Council for a term of five years.

LIEUTENANT-COLONEL BABTIE, V.C., C.M.G., has been temporarily appointed Assistant Director of the Army Medical Service.

DR. S. WEST has been appointed Joint Lecturer on Medicine at St. Bartholomew's Hospital, vice Sir Dyce Duckworth, resigned.

MEDICAL MEN AND THE WORKMEN'S COMPENSATION ACTS.

I.

THE Workmen's Compensation Act of 1897 considerably increased the liability of the employer to his workman when the latter was accidentally injured in those trades to which it applies, and imposed duties upon medical practitioners in connexion with the assessment of the workman's injuries beyond those naturally arising out of the ordinary summons to assist the injured in his home or the hospital.

The scope of this Act has now been enormously widened by a recent statute which extends its benefits to the agricultural labourer, stating that it "shall apply to the employment of workmen in agriculture by any employer who habitually employs one or more workmen in such employment," while, to quote further from the new Act, "where any workman is employed by the same employer mainly in agricultural but partly or occasionally in other work, this Act shall apply also to the employment of the workmen in such other work," and "the expression 'agriculture' includes horticulture, forestry, and the use of land for any purpose of husbandry, inclusive of the keeping or breeding of live stock, poultry, or bees and the growth of fruit and vegetables." From these definitions it will be seen that a workman in agriculture within the meaning of the Workmen's Compensation Acts is a member of a very large class indeed, and that not only the labourer who follows the plough will be entitled to compensation, but, if we may suggest an instance, the gardener who is also employed to drive and who meets with a carriage accident when engaged in the latter occupation. The country labourer does not meet with many accidents which do not arise "out of and in the course of his employment," and it will readily be seen that the majority of accidents occurring to him for which a medical man is called in may become the subject of claims for compensation. The new statute which protects the workman in agriculture comes into force on July 1st next, and it may be of interest to the enlarged class of medical men who will now be called upon from time to time to consider certain provisions of the Workmen's Compensation Act of 1897 if we set out and comment briefly on those which most intimately concern the medical profession. Until the Act of 1897 was passed the medical man, as a rule, became concerned with an action arising out of a workman's accident either because he had attended the injured man or because by his consent he had examined him on behalf of the employer. Under the Act we are discussing the employer to whom notice of an accident has been given by an injured workman can call upon the workman to submit himself to a medical man selected and paid by the employer, and further, after compensation has been awarded and while weekly payments are being made to the workman, the employer, or any person by whom the employer is entitled to be indemnified—as, for example, an insurer—can call upon the workman to submit himself to further examination either to a medical practitioner chosen and paid by the employer, or should the workman object to the medical practitioner or to the certificate given by him, then he may submit himself to one of the medical practitioners appointed for the purpose of the Act as medical referees. These are to be appointed by the Secretary of State and their expenses are to be paid out of moneys to be provided by Parliament. They have duties beyond those already indicated, for they may be called in when required by an arbitrator under the Act to report upon questions arising in the course of the arbitration.

Many very difficult questions of law have arisen under the Workmen's Compensation Acts, as they have under the Employers' Liability Act. We need not consider these at great length, but we shall indicate the scope of the Acts generally, as the medical man will be called in on many occasions by uneducated persons who in many cases will not be able to afford legal assistance. We have no desire to constitute the medical practitioner legal adviser to these, but he should be aware of the legal position of his patients so far as it affects his own and so far as it is readily ascertainable by him.

Before 1880 the workman injured in the course of his employment had a right to compensation by his employer in very few cases indeed. Where the employer caused by his own negligence the injury of his workmen he might be compelled by an action at common law to compensate him, but he owed him no compensation, such as he would to a stranger, if the negligence of a fellow-worker of the injured man caused the mishap, and there were defences open to the employer with regard to the workman's knowledge of the dangers of his employment and other matters that we need not go into. By the Employers' Liability Act of 1880 the employer was made liable in certain cases which did not cover all accidents, or apply to all employments, such as where the accident results from a defect in the condition of ways, works, machinery, or plant, or from the negligence of a person appointed by the employer to superintend work, or of any foreman whose order, obeyed by the workman, has resulted in his injury. Under the Workmen's Compensation Act, in addition to his previous liability at common law or under the Employers' Liability Act, the employer is liable if in any employment to which the Act applies "personal injury by accident arising out of and in course of the employment is caused to a workman," unless the accident is caused by the "serious and wilful misconduct" of the workman, and with the following further proviso, which directly involves the evidence of the medical man, that "the employer shall not be liable under this Act in respect of any injury which does not disable the workman for a period of at least two weeks from earning full wages at the work at which he was employed"—that is to say, before the workman can claim compensation there must be a period of 14 days, not counting the day on which the accident happens or the day on which the workman returns to full work, during which he is disabled, and consequently slight injuries are not subjects for compensation. We need hardly point out that the question of the workman's inability to earn full wages during a precisely defined period is one which must largely depend on medical evidence, and that this provision of the law may well be borne in mind by the medical man while he is treating an accident that is otherwise within the Act.

Glancing at the conclusion of the Workmen's Compensation Act of 1897 before going further we find that it applies to "employment in or about a railway, factory, mine, quarry, or engineering work, or in or about any building which exceeds 30 feet in height, and is either being constructed or repaired by means of a scaffolding, or being demolished, or on which machinery driven by steam, water, or other mechanical power is being used for the purpose of the construction, repair, or demolition thereof." If to this definition is added that of the workman in agriculture from the Act of 1900 given above, the medical practitioner will have a general idea of the class of case in which his services may be required under these two statutes. He need not trouble himself with the legal combats that have raged over the construction of almost every phrase which we have quoted that purports to limit the accidents for which compensation is to be made, but he may remember that some of the most important actions arise where death has resulted and where there are dependants to be compensated, and that in these especially medical testimony may be of some effect in determining precisely the manner in which the accident occurred, and, further, that the question whether there was "serious and wilful misconduct" on the part of the workman is one of vital importance to his claim, or that of his dependants, for compensation. We need hardly say with reference to this class of evidence that the less a medical witness allows himself to be drawn into formulating speculative theories and the more strictly he confines himself to straightforward statements of fact, the better his evidence will stand criticism by a hostile advocate.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on May 9th, the President, Sir WILLIAM MAC CORMAC, Bart., K.C.B., K.C.V.O., being in the chair.

Mr. Priestley Smith and Major Ronald Ross were introduced and after signing the by-laws and making the required declaration they were admitted Fellows of the College.

Mr. William McAdam Eccles was introduced and the President handed to him the Jacksonian Prize, together with a document declaratory of the award.

On the recommendation of the Library Committee it was resolved to provide an additional store-room for books in the basement of the College.

The Committee on the annual report of the Council presented a report on the following letter from Mr. George Brown and Dr. Danford Thomas.

To the President and Members of the Council of the Royal College of Surgeons of England.

GENTLEMEN,—In [illegible] quest of your Council as [illegible] st, we beg to submit the [illegible] opinion the Medical Acts [illegible]

1. Alteration in the [illegible] Medical Council to [illegible] ities and Medical [illegible] ical graduates and [illegible] be obtained only [illegible] Conjoint Board as [illegible] for each division of the kingdom. All the medical corporations in each division to be represented on the respective Divisional Conjoint Board.

3. That in lieu of the present method of registration there shall be an annual registration, the fee for which shall not exceed twenty shillings.

4. That no unregistered person shall practise medicine or surgery or any branch thereof for gain, or use any medical or surgical title or titles calculated to lead the public to believe that the person using such title or titles is a [illegible]

5. The [illegible] branch thereof by any [illegible] olly or in part unregis [illegible]

In addition to the above suggested reforms of the Medical Acts, we would draw attention to the desirability of the Council of the College, in the public interest, takings steps with a view to an amendment of the law relating to the sale of drugs so as to compel the vendors of all patent medicines and proprietary nostrums to state on the package or bottle containing the alleged remedy the exact composition.

In earnestly recommending the serious attention of the Council to the urgent necessity that exists for the above-mentioned reforms, we desire to thank the Council for the opportunity thus afforded for placing these views before them.

And we have the honour to remain,

Your obedient servants,

GEORGE BROWN.

GEO. DANFORD THOMAS.

The Council passed the following resolution:—

The Council are not prepared to promote the alterations suggested in paragraphs 1, 2, and 3. With regard to paragraph 4 the Council approve the principle that no unregistered person should be allowed to practise medicine or surgery for gain, and if the General Medical Council should deem it expedient to apply for an alteration of the Medical Acts to that effect the Council would support their action. Regarding paragraph 5 the Council deem it inexpedient at the present time [illegible] medicines and [illegible] package or b[illegible] tion the Coun[illegible] to initiate proposals for the amendment of the law relating to the sale of drugs.

Mr. R. J. Godlee was appointed a delegate from the College to the Congress on Tuberculosis to be held in London in July next.

The President was re-appointed the representative of the College on the Council of the Jenner Institute of Preventive Medicine.

The report of the Committee on the proposed changes in the regulations for the Licence in dental surgery was received, and it was referred to the Dental Board of Examiners to revise the regulations. The chief alterations will be that at the final examination the marks in anatomy and physiology and in surgery and pathology will be independent of those in dental anatomy and surgery, and that the candidate may be rejected in one part of the examination without being rejected in the other; and further, that candidates will be permitted to take the general anatomical and surgical and the dental parts of the examination separately. Moreover, courses of lectures on dental bacteriology and dental materia medica will be added to the curriculum.

Mr. J. HARDIE moved that it be referred to the Committee of Management to consider and to report upon the desirability of it being required of candidates for the Membership of the College to furnish certificates of having been taught the administration of anæsthetics. The subject was so referred.

The College accepted with thanks a portrait by Mr. T. B. Kennington of the late Dr. Richard Neale, presented by the Neale Testimonial Fund Committee.

Sir Frederick Treves, chairman of the Library Committee, presented to the College on behalf of Sir William Mac Cormac, the President, an album containing autograph photographs of all the celebrities attending the International Medical Congress held in London in 1881. These photographs had been collected by Sir William Mac Cormac, the honorary secretary-general to the Congress.

The thanks of the Council were voted for the gift.

The next meeting of the Council will be on June 20th.

THE PRINCE OF WALES'S HOSPITAL FUND FOR LONDON.

A MEETING of the General Council of this fund was held on May 10th, at the residence of the Duke of Fife, 15, Portman-square, W., his Grace occupying the chair on behalf of H.R.H. the Duke of Cornwall and York.

The DUKE of FIFE announced the resignation of the presidency of the fund by the King, who would become its patron, and the acceptance of the presidency of the Fund by the Duke of Cornwall and York.

Mr. H. O. SMITH read the report of the General Council for the year ending 1900 which recorded an increase of £3000 in the total receipts for the year. Excluding the initial start in the Jubilee year the figures showed continuous progress—viz.: 1898, £39,272; 1899, £48,636; and 1900, £51,649. Although the receipts were only £3000 in excess of the previous year it was felt that the claims of the hospitals justified a larger distribution than before, and it was decided to award to the hospitals and convalescent homes £50,000, as compared with £42,000 in the last year, being an increase of £8000. No appeal was made to the public for 18 months, so as to avoid any clashing with the various war funds, but shortly before the close of the year an appeal was issued. The response to this was somewhat disappointing, but with some special gifts it was only necessary to withdraw from the balance of the funds in hand a sum of £2183 8*s.* 4*d.* in order to make up the distribution of £50,000 The League of Mercy was enabled to contribute £6000 in 1900, as compared with £1000 in the previous year. The expenditure for the year had been £1960, as compared with £1853 in 1899. The report closed by stating that while the work of this Fund was limited to the London hospitals, yet the hospitals themselves were a centre of very wide influence, extending far beyond the limits of London; indeed, to a greater or less extent they affected the wellbeing of the whole Empire, as they supplied no inconsiderable proportion of the medical men whose services were afterwards devoted to all parts of the Empire.

Lord FARQUHAR, in seconding the adoption of the report, said that they hoped that the war which had engaged so much attention and had naturally drawn such large subscriptions from all private people for nearly two years was now coming to an end, and that, therefore, more funds would be available for the excellent cause that they were assembled to support. He referred to the way in which the hospitals had been visited and to the manner in which the Committee had awarded the different sums—a very important matter. It had given general satisfaction.

The Rev. T. BOWMAN STEPHENSON, Sir TREVOR LAWRENCE, Sir HENRY BURDETT, and Mr. J. G. CRAGGS having spoken on the motion it was put to the meeting and was carried unanimously.

On the motion of Lord ROTHSCHILD, seconded by Lord REAY, the accounts and balance-sheet were adopted and passed.

Lord DUNCANNON moved that Mr. A. D. Fripp, F.R.C.S. Eng., and Sir Savile Crossley (both of whom had returned from South Africa) be added to the list of visitors and expressed the hope that the gentlemen who had so kindly acted as visitors last year would continue to undertake this most important duty.

Lord IVEAGH having seconded the motion, various votes of thanks terminated the proceedings.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6419 births and 3635 deaths were registered during the week ending May 11th. The annual rate of mortality in these towns, which had declined from 19·7 to 17·3 per 1000 in the four preceding weeks, further declined last week to 16 5. In London the death-rate was 15 9 per 1000, while it averaged 16 9 in the 32 large provincial towns. The lowest death-rates in these towns were 7 7 in Croydon, 11·6 in Plymouth, 12 7 in Birkenhead, and 13 2 in Gateshead; the highest rates were 19 6 in Hull, 20 4 in Swansea, 20·7 in Manchester, and 22·3 in Brighton. The 3635 deaths in these towns included 381 which were referred to the principal zymotic diseases, against 363 and 394 in the two preceding weeks; of these, 118 resulted from whooping-cough, 90 from measles, 63 from diphtheria, 46 from diarrhœal diseases, 38 from scarlet fever, 25 from "fever" (principally enteric), and one from small-pox. No death from any of these diseases was registered last week in Wolverhampton or in Huddersfield; in the other towns they caused the lowest death-rates in Croydon, Plymouth, Derby, and Birkenhead, and the highest rates in Portsmouth, Salford, Blackburn, and Sheffield. The greatest mortality from measles occurred in Portsmouth, Bolton, and Gateshead; from whooping-cough in Bristol, Swansea, Birmingham, Burnley, and Newcastle; and from "fever" in Blackburn. The mortality from scarlet fever and that from diarrhœal diseases showed no marked excess in any of the 33 large towns. The 63 deaths from diphtheria included 23 in London, 11 in Sheffield, four in Blackburn, three in Birmingham, three in Leicester, and three in Liverpool. One fatal case of small-pox was registered in London, but not one in any other of the 33 towns; and no small-pox patients remained under treatment in any of the Metropolitan Asylums hospitals on Saturday, May 11th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 1913, against 1522 and 1705 on the two preceding Saturdays; 397 new cases were admitted during the week, against 150, 198, and 371 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 374, 286, and 251 in the three preceding weeks, further declined last week to 237, and were 73 below the corrected average. The causes of 35, or 1·0 per cent., of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Nottingham, Bradford, Hull, Newcastle, and 16 other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Blackburn, Sheffield, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 24·1 to 21·2 per 1000 in the five preceding weeks, further decreased to 19 3 per 1000 during the week ending May 11th, but showed an excess of 2·8 per 1000 over the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 12·0 in Aberdeen and 15·1 in Perth to 21 6 in Greenock and 22 8 in Dundee. The 606 deaths in these towns included 49 which were referred to whooping-cough, 20 to diarrhœa, 17 to measles, eight to scarlet fever, four to diphtheria, and one to small-pox. In all, 99 deaths resulted from these principal zymotic diseases last week, against 120 and 83 in the two preceding weeks. These 99 deaths were equal to an annual rate of 3 2 per 1000, which was 1·5 per 1000 above the mean death-rate last week from the same diseases in the 33 large English towns. The fatal cases of whooping-cough, which had been 62 and 39 in the two preceding weeks, rose again last week to 49, of which 21 occurred in Glasgow, 16 in Edinburgh, six in Dundee, three in Leith, and two in Paisley. The deaths from diarrhœa, which had been 23, 13, and 12 in the three preceding weeks, rose again to 20 last week, and included nine in Glasgow, five in Dundee, and two in Paisley. The fatal cases of measles, which had been 25 and 17 in the two preceding weeks, were again 17 last week, of which six were registered in Edinburgh, six in Leith, and five in Glasgow. The eight deaths from scarlet fever corresponded with the number in each of the two preceding weeks, and included three in Dundee, two in Glasgow, and two in Edinburgh. The fatal cases of small-pox, which had been 10, three, and three in the three preceding weeks, decreased last week to one, which was registered in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 169 and 125 in the two preceding weeks, further declined last week to 116, but were 25 in excess of the number in the corresponding period of last year. The causes of 26, or more than 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined from 35 6 to 26 5 per 1000 in the four preceding weeks, rose again to 27 4 during the week ending May 11th. During the past four weeks the death-rate in the city has averaged 29 7 per 1000, the rates during the same period being 17·1 in London and 23·2 in Edinburgh. The 182 deaths of persons belonging to Dublin registered during the week under notice were six in excess of the number in the preceding week and included 15 which were referred to the principal zymotic diseases, against 10 and 13 in the two preceding weeks; of these, seven resulted from whooping-cough, three from diarrhœa, two from scarlet fever, two from "fever," and one from measles. These 15 deaths were equal to an annual rate of 2·2 per 1000, the zymotic death rate during the same period being 1·6 in London and 4 4 in Edinburgh. The fatal cases of whooping-cough, which had been eight and nine in the two preceding weeks, declined again last week to seven. The three deaths from diarrhœa showed a slight excess over the number in the preceding week. The fatal cases of "fever," which had been three, one, and two in the three preceding weeks,

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON DURING APRIL, 1901.

(*Specially compiled for* THE LANCET.)

Cities and Boroughs.	Estimated population in the middle of 1901.	Notified Cases of Infectious Disease.										Deaths from Principal Infectious Diseases.											Deaths from all causes.	Death rate per 1000 living.	Deaths of infants under one year to 1000 births.
		Small pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small pox.	Measles.	Scarlet fever.	Diphtheria.*	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœal diseases.	Total.	Annual rate per 1000 persons living.			
LONDON...	4,543,727	—	784	621	2	117	1	16	259	—	1300	5·2	—	176	25	75	241	—	26	—	46	589	1·7	6143	17·6	122
West Districts.																										
Paddington	144,154	—	23	11	—	5	—	—	8	—	47	4·3	—	—	—	1	13	—	2	—	—	16	1·4	149	13·5	121
Kensington	176,787	—	19	16	—	5	—	1	9	—	49	3·6	—	1	—	4	15	—	1	—	1	22	1·6	202	14·9	173
Hammersmith	112,619	—	25	15	—	1	—	—	5	—	46	5·3	—	1	1	1	15	—	1	—	—	19	2·2	152	17·6	123
Fulham	133,426	—	49	27	—	3	—	1	7	—	87	8·2	—	3	2	4	10	—	1	—	2	22	2·1	167	15·7	104
Chelsea	73,879	—	11	7	—	2	—	—	3	—	23	4·1	—	—	—	—	4	—	1	—	—	6	0·9	102	18·0	165
City of Westminster	182,502	—	18	15	—	3	—	—	5	—	41	2·9	—	2	—	—	11	—	—	—	2	15	1·1	252	18·0	168
North Districts.																										
St. Marylebone	133,060	—	29	17	—	2	—	1	14	—	63	6·2	—	—	1	4	8	—	—	—	1	14	1·4	172	16·9	80
Hampstead	82,246	—	14	16	—	2	—	—	1	—	33	5·2	—	—	—	1	7	—	—	—	1	9	1·4	66	10·5	124
St. Pancras	235,297	—	59	23	—	8	—	—	9	—	99	5·5	—	3	6	2	13	—	1	—	1	26	1·4	314	17·4	102
Islington	335,325	—	45	49	1	11	—	2	15	—	123	4·8	—	7	—	8	9	—	2	—	3	29	1·1	452	17·6	139
Stoke Newington	51,323	—	7	5	—	2	—	1	2	—	17	4·3	—	2	—	—	2	—	—	—	—	4	1·0	70	17·8	93
Hackney	219,780	—	24	45	—	8	—	1	19	—	97	5·3	—	18	4	11	6	—	1	—	1	41	2·4	290	17·2	109
Central Districts.																										
Holborn	59,205	—	11	3	—	1	—	1	4	—	20	4·4	—	1	—	—	—	—	—	—	1	2	0·4	83	19·4	98
Finsbury	101,283	—	19	11	—	1	—	—	10	—	41	5·3	—	2	—	1	1	—	—	—	3	7	0·9	156	20·1	129
City of London	26,938	—	2	4	—	1	—	—	1	—	8	3·9	—	—	—	2	—	—	—	—	—	2	1·0	62	25·5	121
East Districts.																										
Shoreditch	118,554	—	9	18	—	10	1	1	4	—	43	4·7	—	1	1	—	13	—	1	—	2	18	2·0	201	22·1	167
Bethnal Green	129,700	—	17	13	—	3	—	—	14	—	47	4·7	—	8	2	2	3	—	—	—	2	17	1·7	199	20·0	82
Stepney	298,824	—	39	54	1	6	—	1	26	—	127	5·5	—	22	—	4	5	—	3	—	4	38	1·7	459	20·0	119
Poplar	168,827	—	24	30	—	3	—	1	9	—	67	5·2	—	6	1	2	9	—	3	—	3	24	1·9	247	19·1	125
South Districts.																										
Southwark	206,219	—	56	35	—	5	—	—	11	—	107	6·8	—	13	—	6	16	—	2	—	3	39	2·5	369	23·3	140
Bermondsey	130,348	—	23	21	—	6	—	—	9	—	62	6·2	—	13	2	—	8	—	1	—	—	24	2·4	228	22·8	152
Lambeth	202,460	—	47	25	—	1	—	1	18	—	92	4·0	—	8	1	3	19	—	—	—	—	31	1·3	400	17·2	125
Battersea	169,364	—	25	28	—	3	—	—	6	—	62	4·8	—	7	—	3	17	—	—	—	4	31	2·4	241	18·6	145
Wandsworth	233,943	—	40	24	—	3	—	—	16	—	83	4·6	—	8	—	1	6	—	2	—	4	21	1·2	251	14·0	141
Camberwell	259,897	—	51	46	—	7	—	1	9	—	114	5·7	—	31	—	7	12	—	1	—	1	55	2·8	360	18·1	112
Deptford	110,732	—	21	26	—	4	—	—	6	—	57	6·7	—	7	2	2	6	—	1	—	2	20	2·4	146	17·2	114
Greenwich	96,183	—	19	9	—	3	—	2	7	—	39	5·3	—	7	—	2	7	—	1	—	1	18	2·4	114	16·4	94
Lewisham	123,423	—	34	10	—	—	—	—	7	—	51	5·2	—	1	1	3	3	—	1	—	2	11	1·1	115	11·7	79
Woolwich...	117,619	—	21	19	—	7	—	1	5	—	53	5·9	—	1	1	2	3	—	—	—	2	9	1·0	129	14·3	78
Port of London	—	—	1	—	—	1	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including membranous croup.

were again two last week. The 182 deaths in Dublin last week included 30 of children under one year of age and 48 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons were in excess of the numbers recorded in the preceding week. Four inquest cases and two deaths from violence were registered; and 77, or more than two-fifths, of the deaths occurred in public institutions. The causes of 10, or more than five per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING APRIL, 1901.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality in each of the 29 cities and boroughs in the county of London. With regard to the notified cases of infectious diseases the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to an annual rate of 5·2 per 1000 of the population, provisionally estimated, on the basis of the unrevised results of the recent Census, to be 4,543,727 persons in the middle of the year. In the three preceding months the rates had been 6·2, 5·7, and 5·2 per 1000 respectively. The rates were considerably below the average in Paddington, Kensington, Chelsea, City of Westminster, Stoke Newington, City of London, and Lambeth; while they showed the largest excess in Fulham, St. Marylebone, Southwark, Bermondsey, Deptford, and Woolwich. No case of small-pox was notified in London last month and no small-pox patients were under treatment in any of the Metropolitan Asylums hospitals at the end of April. Scarlet fever was more prevalent last month than in either of the two preceding months; among the various metropolitan boroughs this disease showed the highest proportional prevalence in Hammersmith, Fulham, St. Marylebone, St. Pancras, Southwark, and Lewisham. The Metropolitan Asylums hospitals contained 1491 scarlet fever patients at the end of April, against 1979, 1791, and 1533 at the end of the three preceding months; the weekly admissions averaged 179, against 164, 156, and 142, in the three preceding months. The prevalence of diphtheria showed a marked decline from that recorded in any recent month; the greatest proportional prevalence of this disease occurred in Fulham, Hampstead, Hackney, Stepney, Poplar, and Deptford boroughs. There were 960 diphtheria patients under treatment in the Metropolitan Asylums hospitals at the end of April, against 1113, 1111, and 1084 at the end of the three preceding months; the weekly admissions averaged 117, against 129, 136, and 134 in the three preceding months. The prevalence of enteric fever last month showed a further decline from that recorded in recent months; among the various metropolitan boroughs this disease was proportionally most prevalent in Stoke Newington, Hackney, Shoreditch, Bermondsey, Deptford, and Woolwich. The number of enteric fever patients under treatment in the Metropolitan Asylums hospitals, which had been 299, 224, and 162 at the end of the three preceding months, had further fallen to 121 at the end of April; the weekly admissions averaged 16, against 32, 25, and 18 in the three preceding months. Erysipelas was proportionally most prevalent in St. Marylebone, Hackney, Finsbury, Bethnal Green, Stepney, and Greenwich. The 36 cases of puerperal fever included two in Islington and two in Greenwich.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various metropolitan boroughs, the deaths occurring in the public institutions of London having been distributed among the various boroughs in which the patients had previously resided. During the four weeks ending April 27th the deaths of 6143 persons belonging to London were registered, equal to an annual rate of 17·6 per 1000, against 17·5, 19·4, and 17·8 per 1000 in the three preceding months. The lowest death-rates last month in the various metropolitan boroughs were 10·5 in Hampstead, 11·7 in Lewisham, 13·5 in Paddington, 14·0 in Wandsworth, 14·3 in Woolwich, and 14·9 in Kensington; the highest rates were 20·0 in Bethnal Green and in Stepney, 20·1 in Finsbury, 22·1 in Shoreditch, 22·8 in Bermondsey, 23·3 in Southwark, and 25·5 in the City of London. During the four weeks of April 589 deaths were referred to the principal zymotic diseases; of these, 176 resulted from measles, 25 from scarlet fever, 75 from diphtheria, 241 from whooping-cough, 26 from enteric fever, and 46 from diarrhœal diseases. The lowest death-rates last month from these diseases occurred in Chelsea, Stoke Newington, Holborn, Finsbury, City of London, and Woolwich; and the highest rates in Hackney, Southwark, Bermondsey, Battersea, Camberwell, Deptford, and Greenwich. The 176 deaths from measles were 135 below the corrected average; this disease was proportionally most fatal in Hackney, Stepney, Southwark, Bermondsey, Camberwell, Deptford, and Greenwich. The 25 fatal cases of scarlet fever showed a decline of 34 from the average number in the corresponding periods of the 10 preceding years; among the various metropolitan boroughs the greatest proportional mortality from this disease occurred in Fulham, St. Pancras, Hackney, Bethnal Green, Bermondsey, and Deptford. The 75 deaths from diphtheria were 69 below the corrected average; this disease was proportionally most fatal in Fulham, St Marylebone, Hackney, City of London, Southwark, and Camberwell. The 241 fatal cases of whooping cough showed a slight decline from the average number in the corresponding periods of the 10 preceding years; among the various metropolitan boroughs the greatest proportional mortality from this disease occurred in Kensington, Hammersmith, Fulham, Hampstead, Southwark, and Battersea. The 26 deaths from enteric fever were slightly below the corrected average number; the highest death-rates from this disease occurred in Paddington, Chelsea, Stepney, Poplar, and Southwark. The 46 deaths from diarrhœal diseases showed a slight decline from the average number in the corresponding periods of the 10 preceding years; among the various metropolitan boroughs diarrhœa was proportionally most fatal in Finsbury, Poplar, Battersea, Wandsworth, Deptford, and Woolwich. In conclusion, it may be stated that the aggregate mortality from these principal zymotic diseases in London during April was nearly 31 per cent. below the average.

Infant mortality in London last month, measured by the proportion of deaths of children under one year of age to registered births, was equal to 122 per 1000. The lowest rates of infant mortality were recorded in St. Marylebone, Stoke Newington, Bethnal Green, Greenwich, Lewisham, and Woolwich; and the highest rates in Kensington, Chelsea, City of Westminster, Shoreditch, Bermondsey, and Battersea.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Staff Surgeons: Matthew to the *Eclipse*; J. A. Moore and W. W. Pryn to the *President*. Surgeons: G. G. Borrett to the *Minerva*; S. Roach to the *Pembroke*; F. H. A. Clayton to the *Pelorus*; and A. J. Hewitt to the *Eclipse*.

1st Life Guards: Surgeon-Lieutenant-Colonel Horatio R. O. Cross retires on retired pay.

ROYAL ARMY MEDICAL CORPS.

Civil Surgeon R. M. Cowie to be Lieutenant. Major M. Kelly, assistant registrar to the principal medical officer, Netley, is under orders for South Africa. He is to be succeeded at Netley by Captain P. H. Whiston, who has been seconded for service with the Egyptian Army and who is under orders to join his appointment at Netley on May 24th. Captain P. H. Whiston reported his arrival at the Royal Victoria Hospital, Netley, on May 11th. Lieutenant-Colonel W. Rowney succeeds Lieutenant-Colonel Corban in medical charge of the 3rd Station Hospital, and the command of No. 3 Company, R.A.M.C., Aldershot. Captain H. A. Stalkartt assumes medical charge of troops, Station Hospital, &c., Perth. Lieutenants H. R. Bateman and A. D. Jameson have embarked for Egypt.

MILITIA MEDICAL STAFF CORPS.

Stuart Gerald McAllum to be Surgeon-Lieutenant.

VOLUNTEER CORPS.

Artillery: 2nd Sussex: Surgeon-Captain H. Habgood to be Surgeon-Major. *Submarine Miners:* The Clyde Division: James Eric Wilson to be Surgeon-Lieutenant. *Rifle:* 1st Volunteer Battalion the King's (Liverpool Regiment): Thomas Henry Agnew to be Surgeon-Lieutenant. 3rd Volunteer Battalion the Devonshire Regiment: E. R. Tweed to be Surgeon-Lieutenant. 3rd (Cambridgeshire) Volunteer Battalion the Suffolk Regiment: Surgeon-Lieutenant E L. Jones to be Surgeon-Captain. 2nd Volunteer Battalion the Prince of Wales's Volunteers (South Lancashire Regiment): Surgeon-Lieutenant C. Barlow resigns his commission. 2nd Volunteer Battalion the Gordon Highlanders: Surgeon-Lieutenant Colonel W. Mortimer retires, with permission to retain his rank and to wear the uniform of the battalion on retirement; William Cockburn to be Surgeon-Lieutenant. 7th Middlesex (London Scottish): Alexander Howard Pirie to be Surgeon-Lieutenant. 24th Middlesex: Surgeon-Major J. D. Grant resigns his commission, with permission to retain his rank and to wear the uniform of the corps on retirement.

MENTIONED IN DESPATCHES.

In a despatch received by the Secretary of State for India from Lieutenant-General Sir Alfred Gaselee, K.C B, commanding the British contingent of the China Expeditionary Force, dated headquarters, Peking, Jan 17th, 1901, the following passages occur:—

> The medical department have, I rejoice to say, not been severely tested by this campaign, and ample provision for contingencies [illegible] the [illegible] d an [illegible] the [illegible] been [illegible] the [illegible] oyal [illegible] lical Service.
>
> Colonel J B Bookey, principal medical officer during the first part [illegible] of long service whose [illegible] luties to my satisfaction [illegible] mention for their good [illegible] M.C.; Major H. B Cree, [illegible] ls, I M S; Lieutenant- [illegible] himself to be a particu- [illegible] Spencer, I M S, Lieu- [illegible] W. White, I M S, Major [illegible] W. H Kenrick, I M S [illegible] value to this force of the [illegible] and generously placed at [illegible] by Colonel His Highness [illegible]

SOUTH AFRICAN WAR NOTES.

Surgeon Captain J De B. Griffith of the 3rd Victorian Bushmen left Cape Town on May 9th for Australia in the *Morayshire*.

Major Rickets, R A.M.C., Major J. Osburne, R A.M.C, Lieutenant Forbes Winslow, R.A.M.C., and Civil Surgeons Hunter, Collier, and Davison are on passage home.

Civil Surgeon R Wilbond is reported dangerously ill at Springfontein.

Civil Surgeon Sowden's condition is reported unchanged.

Lieutenant-Colonel J. L Hall, R A.M C., Major S Hickson, R A M.C, Captain R. D. Jephson, R A.M C., and Civil Surgeons S. Wicks, Rust, Corkerton, and H. F. Hine, have been discharged from hospital to duty.

THE DEBATE ON THE NEW ARMY SCHEME

The central point of the recent debate in the House of Commons on Mr. Brodrick's new army organisation scheme really consists in the question: Where are the men to be found to meet its requirements and to fill the new army corps? It does not seem to us that army corps are to be considered as the organisation most suitable for this country because they happen to be the best adapted for the big Continental Powers. The circumstances are quite different in the two cases. But whether the required additions to the strength of the army should go to the formation of the proposed army corps or not does not much matter. It makes but little difference what is to be the military nomenclature or organisation so long as the soldiers are not forthcoming. The outlook for the success of any scheme is not, it must be confessed, very re assuring, for it is not at all clear that the numbers required can be obtained at the present rate of pay. Be that as it may, we want, if possible, to obtain a stronger and, on the whole, a more intelligent type of recruits. Whilst a war fever is present there is no difficulty in getting them, and the question arises whether more cannot be done in time of peace to make the army more attractive than it is. We have already expressed our belief that much could be done in this direction. Our recruiting barracks and depôts in towns need to be greatly improved and not hidden away in back streets. More commissions should be given to the rank and file, for there are many gentlemen and men of education serving in the ranks. The soldier might be given more freedom without endangering military discipline by doing away with all unnecessary drills and many irksome military observances and restraints; and the popularity of the service might be increased by the abolition of hospital stoppages, by the provision of dining-halls, by the laying on of hot water for baths and lavatories in barracks, and by the better lighting of barrack-rooms so as to make them more comfortable and cheerful than at present. But we confess that we do not believe that the provision of barrack-room cubicles (to say nothing of any possible hygienic, military, and moral objections to them) will have any favourable influence on recruiting.

LIEUTENANT COLONEL BABTIE, V.C, C M.G.

Lieutenant-Colonel Babtie has been temporarily appointed Assistant Director of the Army Medical Service. Lieutenant-Colonel Babtie served in the occupation of Crete, 1897-98, as senior medical officer (C M G) He served in South Africa with the Ladysmith relief force and was present at the battle of Colenso, where he earned his V C.

DEATHS IN THE SERVICES

Brigade Surgeon William Beale Wallis, late 74th Highlanders, on May 6th, at Colchester, aged 71 years. He entered the service in 1853, and was promoted surgeon in 1862 and surgeon major in 1873 He retired in 1881.

Correspondence.

"Audi alteram partem."

"THE MEDICAL PROFESSION AND THE FRIENDLY SOCIETIES."

To the Editors of THE LANCET.

SIRS,—Mr. Brabrook's letter in THE LANCET of April 27th, p. 1232, is evidently written with a view to bringing together the friendly societies and their medical officers. With your permission I would like to draw attention to a few points in the dispute Mr. Brabrook says "the real question is the proper remuneration of the medical man, and the wage-limit is only a part of that question." Proper remuneration is undoubtedly the chief question, and it is equally certain that, as a rule, the present prices are no remuneration whatever. I am glad to see the assertion made that the societies are "neither beggars nor sweaters" and only wish that such a statement could be verified by facts. In too many instances they, on the one hand, beg well-to-do members to join, holding out the free doctor as an inducement, and so, on the other hand, sweat the doctor.

Medical men have always been ready to act charitably in the matter of fees towards those in poor circumstances, and club prices were undoubtedly originally fixed with this question of partial charity towards the poor in view. If the patients of the same class, who are now in many cases earning double the wage and enjoying many luxuries unknown to their fathers, expect that not only they but also really well-to do people are to be treated still at anything like the same rate they surely must be laying themselves open to the charge of sweating

I have frequently heard it admitted by those in good positions that they join the club simply for the doctor—that is to say, that they pay something like 6*d*. per week to the club, 5*d*. of which is supposed to be for sick-pay and 1*d*. or ½*d*. for medical attendance They are too proud or, as they would say, too philanthropic, to accept the sick relief, but they will accept the services of the club doctor. In other words, they are willingly paying 26*s*. per annum for certain work, but only 4*s* 4*d* or 2*s* 2*d* actually reaches the man who does the work, the whole of the rest being absorbed by the middleman, the club. Is not that sweating? Is not that, indeed, sweating in a very pronounced form? Naturally, these are the very men whom the societies beg to join and equally naturally they are the very men whom we wish to keep out. I have known the largest shopkeeper and most extensive property [illegible] g two clubs so as to be at [illegible] with no intention of eve. [illegible] sweating? Club members often assert that they know clubs cannot pay the doctors, but that they act as an advertisement. *Is not that sweating?*

Again, I believe that in some districts members who are debarred from receiving sick-pay on account of their illnesses being the direct result of intoxication or other vice still expect to receive the medical officer's services without extra payment. Is that fair? I am glad to say that in my own district the committees of two clubs have recently corroborated my view of the rules that "debarred from benefit" means debarred from every form of benefit, including the greatest of all—viz., medical attendance. I think Mr. Brabrook must admit that these actual instances must cast the suspicion of sweating upon the friendly societies. With regard to other matters than the actual fee paid it must be conceded that club patients are by no means the easiest to attend; they often ignore surgery hours entirely and send absurdly urgent messages in unnecessary cases and then plead that they did not wish you to hurry. I myself have received a telegram from a club patient not asking for, but fixing, an appointment at the surgery for the middle of the afternoon, a time at which a country medical man is generally far from home. With ordinary patients these abuses can be checked to some extent by special fees for evening and night work, but not so with club patients.

With regard to the actual question of fees and the abolition of wage-limit Mr. Brabrook says, "all join for the same benefit." Now I maintain that they do not, and will try to explain myself. It may be taken that a member's subscription is paid to insure himself against two evils: (1) cessation of income during illness and (2) the medical man's bill. He cannot insure against sickness itself but can do so against its consequences. Whitaker's Almanack and other books of reference distinctly assert that medical fees are assessed upon a sliding scale, the reason of course being that the fees which the poor are able to pay are no adequate remuneration. The higher a man's income the better fees is he supposed to pay; therefore evil No. 2, the medical man's bill, will demand a higher premium according as the income is higher. If only the class for whom Mr. Brabrook speaks would take to heart his assertion that "there is much in the kindly service of a medical man that no money can purchase," there would be more chance of coming to terms, but too many still deny that a medical man is a free agent, preferring to look upon him as a public slave bound to go wherever and whenever sent for. Working men or, as they will soon have to be called, the leisured classes, should be the first to admit the value of short hours and should be ready to help the medical man to secure the same by seeing that he is better paid for the hours during which he does work. In any revision of club tariff, in addition to increased subscriptions, might there not also be inserted extra charges for late messages and night work, if only to draw the attention of members to the fact that such should be avoided as much as possible. This is only in accordance with the practice of the workman, who charges extra prices for overtime if he consents to do anything after the usual hours.

I consider that friction between clubs and their doctors would be lessened considerably if the latter were looked upon more as medical men and less as paid officials of the club. If a uniform rate for specified incomes and for a specified radius could only be arrived at then it ought to be possible for each member at the commencement of each year to choose to which doctor his subscription shall be paid. Each individual member would then have his own free choice and the power (which is sometimes used in an objectionable manner) of the committee would be practically at an end. Before Skill and Thrift, as Mr. Brabrook calls the two parties, can work together harmoniously Thrift must disabuse himself of the idea that Skill is making a fortune, but must, at the same time, admit that Skill has at least an equal right with the shopkeeper and the publican to make a decent living.

If friendly societies can only be brought to see these things in their proper light and will look upon medical men as their hard-working fellow-men I feel sure they will be willing to increase their own subscriptions instead of trying to persuade richer men to join them in sweating the club doctor. If they cannot see this in such a light they must remember that they have taught us that union is strength and that some day, perhaps, even the medical profession may rise in its might and assert its right to live by doing a fair day's work. I must apologise for the length of this letter, especially as I have not had nearly so much experience as many with clubs, but I wish to point out a few difficulties which have arisen within my own limited scope.

I am, Sirs, yours faithfully,
C. H. POWERS, L.R.C.P. Lond., M.R.C.S. Eng.
Gosforth, Cumberland, May 7th, 1901.

"ON THE CAUSATION AND TREATMENT OF PROFUSE EPISTAXIS IN PEOPLE BEYOND MIDDLE AGE."

To the Editors of THE LANCET.

SIRS,—May I send a few lines to supplement my paper on the above subject which appeared in THE LANCET of April 20th, 1901, p. 1133, and to answer some of your queries? In all my cases the hæmorrhage was purely passive —i.e., it was venous hæmorrhage due to an over-filled venous system. The patients were all with one exception over 60 years of age and were all what is commonly called "gouty," having suffered from eczema, &c., though only one had had an attack of true sthenic gout. The more or less chronic state of high arterial tension was, I think, due in all to what has been called "lithæmia," "uricacidæmia," &c.—a condition which so commonly produces cardio-vascular degenerative changes in well-to-do people of 50 years and upwards. In these cases there is usually no history of any injury or any great exertion or strain, but the patients as a rule complain of having felt tired and fatigued for some time, they get more easily out of breath, and feel going up-hill or upstairs to be much more of an effort than it used to be. These symptoms show that working against the long-continued high intra-arterial pressure has told on the muscular wall of the heart and has diminished its elasticity, or, in simple words, that these patients are suffering from tired hearts.

In many people whose circulatory system is in this condition some valvular disease is apt to be set up at about the age of 60 years from the excessive strain on the valves caused by this long-continued high pressure—i.e., the valvular and muscular structures of the heart are apt to fail at about the same time. In these cases the mitral valve tends to become diseased and defective rather than the aortic, which is curious, as in cases of heart strain from external work the aortic valve usually gives first, whilst the mitral certainly suffers most frequently where the heart strain is due to high arterial tension, probably because it has to resist the greatest strain set up during the systole. These patients with chronic high arterial tension and tired hearts must necessarily have at all times a tendency towards a faulty distribution of their blood in the various vessels, and their veins must as a rule contain too much blood. If to this state of circulation any additional hindrance to the flow of blood should supervene, such as a quickly developing valvular lesion, a sudden contraction of the peripheral vessels from exposure to cold, &c., the embarrassed heart must become still more unequal to its work and a condition of more or less intense venous congestion inevitably be set up. If so, nature will probably seek relief by some hæmorrhage and this tendency to hæmorrhage will continue until the venous congestion be relieved.

Unfortunately, the hæmorrhage tends further to weaken the already feeble heart and lands the patient in a vicious circle where hæmorrhage is followed by hæmorrhage. In these cases one attack of epistaxis if not properly treated is generally followed by another and the patient may be reduced to a condition of extreme weakness. In my cases of epistaxis I had no history of any sudden muscular effort or strain, but rather the complaint of having had tiring days or feeling very cold and chilly. In the three cases where valvular disease was found as a new feature I believe the epistaxis occurred when the heart was at its weakest, before it had become accustomed to the altered conditions caused by the valvular lesion and before any compensatory hypertrophy was established.

I am, Sirs, yours faithfully,
Brechin-place, S.W., May 7th, 1901. GEORGE COATES.

STERILISED MILK AND INFANT MORTALITY.

To the Editors of THE LANCET.

SIRS,—I am desirous of seeking information through the medium of THE LANCET with regard to certain details in the sterilisation or modification of milk for the purpose of reducing infantile mortality in manufacturing towns. By the

St. Helens scheme a basket is given to each customer containing nine bottles of sterilised, modified, or humanised milk, and with this a teat which can be fitted upon the end of the bottle. Directions are given to the mothers to feed the baby every two hours during the day and every four hours during the night, and to give the milk through the teat supplied. This seems easy and simple enough in theory. In practice, however, we have, in our endeavours to reduce infantile mortality, to cater for a class who through circumstances or indifference are unable to grasp the full object of the scheme. This class either refuse to use the milk at all or if they use it they pour the milk out of the sterilised bottle into an ordinary "titty bottle" with a long indiarubber tube or replace the teat with a long indiarubber tube of their own and thus save themselves both time and trouble. This materially alters the whole purport of the scheme, as the bottle or the tube used is generally in a state of sepsis, and the baby, instead of receiving pure wholesome milk, obtains it contaminated by admixture with the sour septic milk left from former feeds in the bottle or the tube, and this does not help to reduce infant mortality, but brings the sterilised milk scheme into disrepute.

Supposing the authority which supplies the milk were to obtain a quantity of these long flexible tubes and with every basket they supply, or in such cases as they consider it necessary or where the mothers prefer it, give one or two of these tubes (thoroughly cleansed), so that the child could be fed through this tube instead of the short teat, at the same time directions being given to the mothers that these tubes must be returned daily for cleansing, 1. Would this do away with the efficiency of the scheme? 2. Is it impossible to keep the long tubes clean? 3 Does the contact of sterilised milk with the length of indiarubber (thoroughly cleansed) contaminate the milk? 4. Is the objection to the long tube any other than that it is less likely to be thoroughly cleansed than a short one? 5. If the infant mortality of our manufacturing towns is due chiefly to the feeding of infants on improper food or feeding them out of dirty bottles and tubes, ought not authorities to try to render their scheme for educating and helping the mothers of such practical utility that even the most careless and indifferent could use the sterilised milk without feeling it to be an irksome burden? There is no doubt that the long flexible tube is used, and used to advantage, by many well-to-do people who keep it thoroughly clean, and I should like to know if the consensus of opinion amongst medical men is that milk must of necessity become contaminated the moment it passes through a length of indiarubber, and that the cleansing of this indiarubber tube is an impossibility.

I am, Sirs, yours faithfully,
E. A. CLARKE, M R.C.S. Eng., L.S.A.
Dukinfield, May 14th, 1901.

"LEGISLATION AGAINST NATIONAL INTEMPERANCE."

To the Editors of THE LANCET.

SIRS,—Dr. Walter Kidd is alarmed lest Dr. Reid's views should triumph on a foundation of Weissmannism. But it is one thing to assert that only inborn characters are transmitted, as Dr. Reid does, and another to *attempt* to explain how they are transmitted, as Weissmann has done. Nobody has spoken more emphatically than Dr. Reid on this subject. "Weissmann's speculations,"[1] he *says*, "*obscure* in themselves, made more obscure by his methods of demonstration, still more obscure by being constantly emended under the influence of destructive criticism, have *drawn* many students from the true path and by their difficulty have discouraged others." He speaks of Weissmann's views as "more or less metaphysical speculations concerning the continuity of the germ plasm and ids, idants, biophors, and so forth." Dr. Kidd's alarm would appear, therefore, to be groundless.

Dr. Clouston's remarks[2] concerning my criticisms are excellent in their brevity but deficient in argument of any kind; I will grant him his two irrelevant points cheerfully and humbly withal if he can destroy my criticisms or answer my challenge successfully.

I am, Sirs, yours faithfully,
H. LAING GORDON.
Honor Oak road, S E, May 12th, 1901.

---

[1] Scottish Medical and Surgical Journal for June, 1900, pp. 613 and 514.

[2] THE LANCET, April 27th, 1901.

SWALLOWING ARTIFICIAL DENTURES.

To the Editors of THE LANCET.

SIRS,—Deaths from swallowing artificial dentures are becoming alarmingly frequent and the operations for the removal of these irregular and spiky objects are very often also fatal. The cause of this fatality is, of course, the hooks and bands which project from the plate, bury themselves in the tissues, and can only be dislodged by still further lacerations. It has struck me that in the case of vulcanite plates (most plates are now made with vulcanised caoutchouc as a base) the removal of the denture could often be facilitated by its being divided *in situ* and the parts removed separately. This could be done by splitting it with cutting forceps or dividing the vulcanite by fusing it with the electric cautery at a not very high heat Metal plates could not be divided so easily, but it would be by no means impossible with strong shears.

I might also, in this connexion, mention that the swallowing of these dentures takes place as a rule during sleep. I do not wish to add another burden to the already over-laden general practitioner, but he would do well to warn any patient wearing a "partial" denture of the risk he runs, apart from hygienic considerations, by not removing his plate at night.—I am, Sirs, yours faithfully,
WM RUSHTON, L.D.S. R.C.S. Eng.
Harley-street, W., May 7th, 1901.

KING'S COLLEGE, LONDON, AND THE SOUTH AFRICAN WAR.

To the Editors of THE LANCET.

SIRS,—There is a large wish among old King's collegians and King's College school boys that the services of any of their number who have fallen in the war or who have survived the campaign in South Africa should have suitable commemoration. It will greatly facilitate matters, in view of an early meeting of sympathisers with the movement, if the names of any who are worthily entitled to inclusion in the roll of honour be immediately communicated. The medical representation must necessarily be a very large one and through the medium of THE LANCET we shall doubtless receive the names of a goodly number of King's College men, dead and alive.

I am, Sirs, yours faithfully,
J. TREEVE EDGCOME,
Associate of King's College, London.
Inner Temple, E C, May 6th, 1901.

SOUTH AFRICAN CIVIL SURGEONS' DINNER.

To the Editors of THE LANCET.

SIRS,—We have received so much support in reply to our letter published in THE LANCET of April 27th, p. 1236, that we feel justified in asking you to announce that the dinner will be held on Wednesday, June 5th, at the Hotel Cecil at 7.30 P.M. The price of the tickets will be 10*s*. 6*d*. each. We shall be glad to hear as soon as possible from any civil surgeons who may desire to be present. We shall be further obliged to you if you will kindly publish the following list of those who intend to be present: H. A. Ballance, A. A. Bowlby, J. Paul Bush, E. G. Calverley, J. Lenthal Cheatle, W. Watson Cheyne, John Chiene, A. Conan Doyle, H. W. Dudgeon, W. V. Eaves, A. D. Fripp, J. F. R Gairdner, A. Granville, E. A. Houseman, Sir W. MacCormac (chairman), G. H. Makins, H. T. Mursell, T. H. Openshaw, F. O. Stoehr, C. Stonham, H. J. Starling, Sir W. Thomson, H. H. Tooth, F. E. Walker, and P. Wood.

We are, Sirs, yours faithfully,
C. GORDON WATSON, } Acting Secretaries.
FRANCIS E FREMANTLE, }
30, Moore-street, Lennox gardens, S W.

AN APPEAL TO MEDICAL FREEMASONS.

To the Editors of THE LANCET.

SIRS,—I appeal to medical Freemasons to assist me in getting Reginald Everard Adolphe Webster, aged 10 years and three months, into the Royal Masonic Institution for Boys at the October election, which will be his first and only chance. Bro. Dr. Webster, the father, was P.M., Lechmere Lodge No. 1874, and was until recently a member of the Addiscombe Lodge No. 1556. He died this year from acute pneumonia after a brief illness, leaving a widow and four children practically unprovided for. I would be glad to receive votes for any of the Masonic institutions.

I am, Sirs, yours faithfully,
HENRY G. THOMPSON, M.D. R.U.I.

110, Cannon street, E C, May, 1901.

THE MEDICAL BENEVOLENT COLLEGE.

To the Editors of THE LANCET.

SIRS,—In common with the other governors of the Medical Benevolent College, Epsom, I have just received my annual voting-paper together with a recommended list of candidates drawn up by a committee of the Council, and it is to this document that I wish to call attention. There are 19 candidates for four vacancies for pensions, five being males and 14 females, but the recommendation committee, as in many former years, entirely ignores the men. Why, may I ask, is the broken-down practitioner to be always passed by in favour of a widow? This year's list is headed by the name of a practitioner, aged 69 years, which appears for the *ninth* year and has never yet had the recommendation of the committee though the applicant has scraped together 2021 votes, and has now died before the election! Then we have a practitioner of 79 applying for the *fifth* time and another of 79 for the *fourth* time. Surely the necessities of these gentlemen must equal those of widows of 62 and 64 who are recommended by the committee. I have no knowledge of the committee or their methods of investigation, but it seems odd to the outsider that they should recommend four candidates who have already secured 3558, 2756, 2770, and 3029 votes respectively, and who are therefore almost certain to secure their election without much assistance.

When I turn to the candidates for Foundation Scholarships I find the same tendency to recommend those candidates who have already secured large numbers of votes and therefore must have influential friends. I quite approve of supporting "last applications," but I think some of the seven cases selected are on the face of them open to criticism as compared with others who have not been so fortunate in securing votes. I need hardly say that I shall not support the list recommended.

I am, Sirs, yours faithfully,
AN OLD GOVERNOR.

GERMAN SURGICAL CONGRESS.

(FROM OUR BERLIN CORRESPONDENT.)

(*Concluded from p. 1305.*)

Extirpation of the Gasserian Ganglion.

PROFESSOR KRAUSE (Berlin) gave an account of 25 operations performed by him for neuralgia of the trigeminal nerve and described the details of his method. In typical neuralgia the operation was successful in every instance; in other conditions, such as in hysteria, rheumatism, &c., it was useless. The operation was sometimes followed by slight sensory disturbances, such as sensations of pricking, &c.; paresis of the muscles of the eye and keratitis have also been observed. Some of the patients have remained well for between five and six years.

Castration for Tuberculosis of the Testicles.

Professor VON BRUNS (Tübingen) said that castration was not now performed so frequently as it used to be and double castration was avoided as much as possible because psychical troubles were said to follow this operation. There were also cases in which castration, in the full sense of the word, was not necessary, because sometimes, and especially when the disease was progressing but slowly, the removal of the tuberculous portions of the testicle or the epididymis was sufficient. Professor von Bruns had collected the statistics of the cases of this disease which had been met with at the Tübingen surgical clinic during the past 50 years. He was able to examine 112 cases, comprising 79 in which the disease was unilateral and 32 in which it was bilateral. The disease began nearly always at the epididymis; in 24 per cent. the testicle was affected with tuberculosis six months afterwards, and in 40 per cent. one year afterwards. In 26 per cent. the second testicle became tuberculous after the first had been removed. As to the results of unilateral castration he had found that 13 per cent. of the patients died, that in 15 per cent. of the cases tuberculosis of other organs occurred afterwards, that in 26 per cent. the other testicle became tuberculous, and that in 46 per cent. there was permanent cure. After bilateral castration as many as 56 per cent. of the patients were permanently cured. With regard to tuberculosis of the uropoietic system he stated that it was not more frequent in connexion with tuberculosis of the testicles than in connexion with tuberculosis of the other internal organs. His final conclusion was that the results of castration were not so bad as had been suggested.

Professor BAUMGARTEN (Tubingen) gave an account of his experiments on tuberculosis of the urogenital organs. He had tried to ascertain by experiments on animals whether it might be possible to produce tuberculosis of the bladder and kidney by injections of cultures of tubercle bacilli into the testicle. It had been proved that the tubercle bacilli never moved in a contrary direction to the circulation of the lymph but always with it. They had no power of motion of their own, but were carried along by the lymph-stream. Tuberculous disease might therefore reach the bladder from the testicles, but not *vice versâ*.

Professor BUNGNER (Hanau) recommended "castratio alta." He removed not only the testicle, but also most of the vas deferens. The incision must thus be made rather large and the remainder of the vas deferens was removed by evulsion. It had never happened that after this operation tuberculosis extended to the peritoneum, as suggested by Dr. Schede.

Dr. SIMON (Heidelberg) reported 92 castrations for tuberculosis of the testicle, 66 per cent. of which resulted in cure. In 24 per cent. pulmonary tuberculosis was present, and it was found that the disease of the lungs was favourably influenced by the castration. Of 29 cases of bilateral castration eight patients died afterwards from tuberculosis and 21 were still alive. Psychical troubles occurred once.

Effects of Modern Artillery and Rifle Fire.

Surgeon-General W. SCHJERNING (Berlin) said that hitherto wounds from artillery fire were relatively rare, but henceforth they would be more frequent owing to the use of quick-firing guns and the greater precision of modern artillery. Wounds inflicted by shrapnel would be specially liable to infection by foreign bodies, such as portions of uniform being driven into the wound, so that 96 per cent. of those who were struck would be disabled. The same was the case in wounds from splinters of shells. In future wars probably more men would be killed at once on the battlefield by small calibre bullets, especially when the opponents came to closer quarters than had been the case in the South African war. Those who survived and were carried off the battlefield would, however, have a greater chance of recovery than had been the case in former wars, owing to the progress of operative surgery and the improved arrangements of the army medical service. This was especially evident in wounds of the abdominal organs, where laparotomy, when performed from 12 to 24 hours afterwards, would save a good many of the wounded.

Dr. TILLMANN (Greifswald), who had studied the specimens in the Army Medical Museum at Washington, U.S.A., stated that in former wars the wounds were not so severe as they were now. Nevertheless, the number of amputations was enormous because the great majority of wounds became infected.

Other papers read before the Congress dealt with the following subjects: Operations for Cleft Palate, by Professor VON EISELBERG (Vienna); the Parasites of Cancer, by Dr. NILS SJOBRING (Lund); Cerebral Surgery, by Professor HEIDENHAIN (Worms); Appendicitis, by Dr. REHN (Frankfort); and Contractures of the Knee-joint, by Dr. HEUSNER (Barmen). Professor KOCHER was elected President for the next meeting of the Congress.

NEW HOSPITAL AT NEWPORT (MON.).—The new hospital which has been erected at Newport (Mon.) will be formally opened by Lord Tredegar on August 5th. The institution, which will contain 84 beds and stands on an area of four and a half acres of land, has been built at a cost of about £30,000.

THE ORGANISATION OF THE PROFESSION IN FRANCE.

(FROM OUR SPECIAL COMMISSIONER.)

AFTER-EFFECTS OF THE INTERNATIONAL CONGRESS OF DEONTOLOGY.

THE International Congress of Medical Deontology, which was held in Paris in the month of July last year, has been bearing fruit. The desire for organisation has spread in the ranks of the medical profession in France just as it is spreading in England. On several occasions the medical organisations that exist among our near neighbours have been described in these columns, notably the Association Générale des Médecins de France, the Concours Médical, the Syndicat des Médecins de la Seine, l'Union des Syndicats Médicaux de France, &c. But these organisations, though accomplishing useful work in their respective spheres of action, should at least occasionally be grouped together for a common purpose. The remarkable paper on Medical Deontology read at the International Congress by Dr. Grasset of Montpellier led to the adoption by the entire Congress, at its final sitting, of the following resolution:—

> The First International Congress of Professional Medicine and Deontology, considering that, apart from the International Commission which has been constituted, it is also necessary to form in France a permanent national committee for the purpose of (1) preparing the national participation in the next International Congress, (2) of drawing up a project of a deontological code which shall be submitted for examination and discussion to all our colleagues, (3) of [illegible]

The above resolution constitutes the first attempt to federate all the medical organisations of France, and the representatives of these various societies met last Easter at the Paris Faculty of Medicine. It soon became evident, however, that in spite of the resolution considerable difference of opinion prevailed. Several of the medical men present manifested a strong preference for the constitution of medical chambers after the model of those that exist in Germany and Austria The reports as to medical chambers that had been given at the International Congress had not, however, been very favourable. The fact that every medical practitioner would be compelled by law to subscribe to, and to obey the rules and discipline of, medical chambers had its advantages; but, on the other hand, the dependence upon the government involved would mar freedom of action and would prevent the profession from attending to many questions that might be of considerable importance. Nevertheless, it was maintained that many advantages had resulted from the constitution of medical chambers in Germany and Austria which had not been mentioned at the International Congress. After some considerable discussion the matter, however, was allowed to drop and the attempt to revise the decision adopted at the Congress collapsed. On the other hand, it was felt that the Committee actually constituted by the resolution quoted above was lacking in authority and it was determined that some effort should be made to obtain some recognition and sanction from the Government. For this purpose the President of the Committee, Dr. L. Lereboullet, proceeded to the Ministry of the Interior, where M. Henri Monod holds a post similar to that of the chief of the medical department at the British Local Government Board. M. Monod, however, when asked what would be the attitude of the French Government, held out no encouragement. He seemed to fear that a clash might occur between the organised members of the medical profession and the medical men in the employ of the Public Assistance Service whose position bears some analogy to that of the medical men who in England hold official posts under the Poor-law. M. Monod did not relish the idea of the creation of a Superior Council of the medical profession with the aid of, and under the patronage of, the Government. He thought that such an organisation should be independent of all Government authority and control.

Dr. Lereboullet then proceeded to the Ministry of Public Instruction, which, as the controlling authority over the universities and faculties of medicine, is also concerned in the interests of the medical profession. Here M. Liard, the Director of the Secondary Education Department, expressed much sympathy. He readily recognised, and he emphasised the fact, that the medical profession was in serious difficulties. Indeed, he went so far as to say that in his opinion a terrible calamity was at hand. An unprecedented number of medical students had entered at the Faculties of Montpellier, Toulouse, and Bordeaux. Any number of small farmers, petty tradesmen, and others who were able to scrape a little money together were now sending their sons to the universities so as to make medical men of them. There would be a terrible glut in the urban supply. There were not too many medical men in France, but all the young men gravitated to the large centres and especially to the northern towns. For small rural practices there was still need of medical men, but the newly-qualified practitioner was generally too ambitious to accept such a modest position. Thus the glut was due to bad distribution rather than to an over-supply of medical men. M. Liard was of opinion that it would be a good thing if a law were enacted constituting some sort of institution that could act as a governing body for the entire medical profession. There is no General Medical Council in France similar to that which exists in England and there is neither Register nor authority willing or able to remove from the profession an unworthy practitioner. The Superior Council of Hygiene is supposed to possess this power, but it has never exercised such a function. No proposal has even been made to this body to deal with professional questions; it has never attempted to do more than to advise the Government in matters relating to the preservation of public health.

Finally, Dr. Lereboullet went to the Ministry of Commerce and Industry. Here he was most cordially received. M. Millerand said that he would favour the creation of a medical council that would have for its mission the studying of all questions of social protection. First would come the protection of the economical interests of the medical men themselves, and after that their connexion with other corporations, collectivities, trade organisations, &c. This somewhat alarmed some of the medical men. To their fancy these suggestions seemed not unconnected with the principles of State socialism, they feared the introduction of politics in their midst and, when gathered together to hear the results of these various negotiations, a large majority voted that no further effort should be made in this direction. It is also necessary to recognise that the desire to create a central and supreme authority is not viewed with absolute favour. Theoretically, all must acknowledge that one great powerful organisation is preferable to many weak bodies, but in practice each collectivity has an individuality of its own and does not always relish a process of absorption, and some of those who have considered themselves as chiefs do not always care to become subordinates. At present the tie of union is so slender that each particular society is able to continue its own individual life without check, control, or interference, and it will need some sharp necessity to make these different groups or organisations abandon their independence. Yet among the members of the profession at large, and especially among those who do not belong to any special organisation, the need of a central and supreme body is widely felt. This is proved by the fact that though such a body can hardly be said to exist hundreds of medical men have acted as if it was actually not only in being but possessed of very extensive powers. No sooner was it generally known that, by virtue of the Grasset resolution, the Organising Committee of the Deontological Congress had become the Permanent National Committee of Professional Medicine than innumerable letters came pouring upon the general secretary, Dr. Jules Glover. Though possessing no power to act, no secretaries, and no funds to help him to carry on so vast a correspondence, Dr. Jules Glover has received as many as 30 letters in one single day, coming from all parts of France or the colonies and some even from abroad, and raising complex questions or making extraordinary requests. Sometimes it is a medical man who is losing his practice through the competition of a quack, another has a quarrel with a fellow practitioner, not a few want to change their practices, to remove to some more suitable or agreeable locality, or to prevent some newcomer from establishing himself in their immediate neighbourhoods. Then there are endless disputes with friendly societies, insurance companies, colliery or factory owners, &c. Dr. Glover does not know what to do with this vast correspondence, and sometimes he calls on the Dean of the Faculty, Dr. Brouardel, and lays before him a formidable bundle of letters. Dr. Brouardel suggests that Dr. Glover should as yet do nothing, for no one has the means or the power to take action at this stage. But all this proves that there is a real need of some better organisation and of some sort of council, committee, or professional tribunal to which many of the questions raised by the correspondents could be referred with the hope of obtaining a solution. In his replies to these letters Dr. Glover refers his correspondents to such societies as exist and that deal with the questions raised, but in many cases there are no societies to which such reference can be made.

As matters now stand there is some question of creating an Order of Doctors. Presumably it will be an honour to belong to this order, and those on whom this distinction is conferred will be expected to observe those ethical or deontological rules which after all should be carried into practice by every member of the profession. It cannot be said that certain medical men are bound by a code of honour which other practitioners need not observe. Every good rule should apply equally to all. This question of an "Order" seems to be but playing with words. Organisation and discipline to carry out a definite set of principles are greatly needed and it does not much matter under what name this end is attained. There is now the beginning, though but a small beginning, of the necessary and centralised organisation. The Permanent National Committee of Professional Medicine has arranged to meet at least twice a year at the Paris Faculty of Medicine. Here will be centralised the questions that have arisen in the various medical organisations that are represented on this National Committee It remains for the medical practitioners, for the rank and file of the profession, to enrol themselves in their local medical syndicates or unions and thus to render the National Committee a truly representative institution. At present it has only a moral influence. It has not even constituted a committee or tribunal of discipline, but it has appointed a sub-committee to draw up the draft of a code of deontology. As is usual, there is more said about the grievances and the rights of medical men than about their duties, but this will come in due time. The work of organisation is slow but it is better that a small body of men who are all absolutely unanimous should work the object in view than a crowd lacking in cohesion. When the profession, by the steadily pursued work of organisation and the federation of organisations, has found the means of articulating and rendering its desires manifest what legal sanction may be needed will then be attainable. In any case the First International Congress of Medical Deontology has not been held in vain, for it has brought into existence the Permanent National Committee of Professional Medicine, and that the Congress itself was a success is still further proved by the report which this committee has just issued. According to this statement, 55 000 circulars were sent out for the International Congress. These were printed and posted by the French Government free of cost. The subscriptions or entrance fees of the members of the Congress amounted to 9995 francs. The Paris Municipal Council gave the Congress a subvention of 3000 francs, and with some small donations and the sale of reports of the proceedings to persons who were not members of the Congress the total receipts amounted to 13,349 francs, or £534. The expenses, including £72 for the banquet, amounted to £442, so that there remains a balance of £92 in hand to help in the organising of the next International Congress which will be held at Brussels in 1903

For this next International Congress each nationality should have an organising committee of five members with a representative who resides in Paris, and these committees of patronage have already been appointed in the United States, in Belgium, in Holland, and in Spain. These national committees will endeavour to promote the interests of the Congress and will urge societies to send representatives; they will have a voice in the preparation of the programme. The permanent committee of the first International Congress has its headquarters in Paris, with Dr. Jules Glover, 23, rue de la Bienfaisance, for its general secretary. This body is taking the initiative for the appointment by each nationality of a local national committee of patronage. Someone must do this work and the only committee in existence and able to meet is the committee which organised the first Congress when it was held in Paris It therefore at present serves as the international connecting link and will continue to do so until the Congress meets again in Belgium. This work will then probably be taken up by the Belgian committee upon whom will fall the organisation of the Second International Congress to be held in Brussels in 1903.

Paris, May 4th

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Plague Epidemic.—The Pasteur Institute at Kasauli—Laboratories for Experimental Research.

THE intensity of the outburst of plague in Bengal is at last abating, although the disease continues in other parts of India without much change. For the whole of India there were 8429 deaths from plague last week, as compared with 11,616 in the previous week. In Bengal the figures dropped from 7881 to 4735. The North-West Provinces report 929 deaths as against 909, the Punjab 393 as against 301, Karachi 219 as against 176, and Bombay City 714 as against 707. Twenty-five deaths are reported from Kashmir. In Calcutta the outbreak is rapidly going down—the plague mortality having fallen from 859 to 548. The returns show that there have been 6212 deaths from plague in this city since the beginning of the year. There is a slight rise in the plague figures for Bombay, but these figures are utterly untrustworthy Notwithstanding the proved value of inoculation for plague the prophylactic is being pushed in a half-hearted sort of way and in many places it receives little encouragement from the higher authorities The issue of doses from the Research Laboratory, Bombay, the week before last was 10,020 to Bangah in the Jullunder district of the Punjab, 4000 to Jullunder, 2000 to Gurdaspur, Agra, and Karachi, 1182 to Gaya, 1206 to Kashmir, and 1000 to Falma in Marwar. Very few inoculations are being done in Bombay city and practically none at all in Calcutta

The work done in the Pasteur Institute at Kasauli from its opening in August last up to March 8th included the treatment of 173 patients. The lists are made up as follows: British officers, 15; British soldiers, 45; native officers, 1; soldiers, 9; European civilians, 27; soldiers' children, 3; natives, 73. The success so far in the treatment of these cases equals that of the Pasteur Institute in Paris and the institute will prove a pecuniary gain to the Government in the long run. What are now wanted are well-equipped research laboratories in Calcutta and Bombay, where original researches should be made by the officers in charge and could also be made by private investigators. The field for original work in bacteriology and experimental pathology in India is enormous, but with the exception of one or two small efforts at cultivation it is all running to waste. What scientific work do we hear of in the treatment of plague, of cholera, of relapsing fever, and of the anomalous fevers which men are so fond of writing about? Can it be said that we have advanced a single step in the treatment of these diseases during the past four years? And why? Because there is no organised experimental research. Take Bengal, the reputed home of cholera. Is there a single man deputed to work upon and to investigate this disease? Cholera inoculation has got to a certain stage, but it gets no further, and there is absolutely no scientific treatment after the symptoms of the disease have once commenced. What have the scattered workers done in plague? The treatment is still stimulants strychnine, and digitalis, and the mortality is still nearly 80 per cent Nothing can be done without experimental research and laboratories cannot be supported except by Government or by public bodies. The men must be found to be put upon the work, it is utterly impossible for it to be taken up as a hobby.

April 20th.

The Decline of the Plague Epidemic.—The Famine.—The American "Diploma Mill" and Indian Victims.—Return of Hospital Ships from China.

A further large reduction in plague mortality occurred last week. The total deaths throughout India were 6304 as compared with 8429 for the previous week. The decline was general with the exception of the Punjab where the deaths rose from 393 to 518 The most marked fall was noticeable in Bengal where the deaths fell from 4735 to 3258. The outbreak in Calcutta is rapidly subsiding, the deaths from plague having declined from 548 to 389, and the general mortality of the city having returned nearly to normal. The Saran, Gaya, and Patna districts, recently suffering so severely, return much reduced figures, but in the outlying villages of the Saran and Patna districts the disease is still very virulent. In the North-West Provinces there has been a decline from 929 to 662 and in Bombay city from 714 to 602. In Calcutta the general mortality keeps very high, the last published weekly total giving 1667 deaths—equivalent to an annual death-rate of 109 62 per 1000. The city of Karachi is still severely afflicted with the pestilence, but an improvement can be calculated upon very shortly. The Jumna district of Kashmir returned last week 25 deaths.

It is, perhaps, hardly realised in England that the famine still continues. The returns for last week show over 250,000 persons on relief in British territory, nearly all of whom are in the Bombay Presidency. Portions of the Hyderabad State and the Baroda State are also still famine-stricken.

The Government have published certain extracts from American papers recording the conviction of the two Armstrongs who conducted a "diploma mill" and sent many of their "diplomas" to India. Several native practitioners were deluded by these rogues, who are said to have been turning out graduates at the rate of 1000 a year. First they styled themselves the Illinois Health University. When this was stopped the Independent Medical College was started, and when this was annulled the Metropolitan Medical College came into existence. It is highly satisfactory to hear that imprisonment for one year has been imposed on James Armstrong, the so-called President, and that though the sentences have been deferred on his coadjutors they are also likely to be punished. This is a good example of the necessity for some form of registration in India. At present any quack is free to assume any titles he chooses and to delude the public as to the possession of medical knowledge. The recognised graduates of colleges in India should be separately registered, and it might be possible also officially to acknowledge the native hakims and vaids who practise with native drugs and methods of treatment.

The hospital ship *Carthage* has arrived from China, bringing troops collected from Peking, Tientsin, Taku, and Shanghai Kwan. She brought 225 native rank and file and 157 followers There were also 20 British non-commissioned officers and men and a few commissioned officers. The hospital ship *Gwalior* is expected shortly with sick and invalids. Arrangements are now being made in Calcutta to fit up transports to bring back the Imperial service troops—viz , the Jodhpore Lancers and the Bikaneer and Ulwar regiments.

April 25th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

A New Anti-malaria Experiment: a Munificent Offer.

THE theory of the connexion between mosquitoes and malarial fever will shortly be put to a very practical test If the theory strongly held by Major Ronald Ross, late I.M.S , the director of the Liverpool School of Tropical Medicine, and others that the anopheles is the bearer of the germs of malarial fever be a correct one, it follows that the extirpation, in certain districts at least, of the noxious insect must tend to minimise the danger of malarial infection. Doubtless to many it would appear to be utopian to attempt a task so apparently hopeless; nevertheless, given the means the experiment is worthy of trial. With this laudable object in view, and with great munificence, a Glasgow citizen who desires to remain anonymous has placed at Major Ross's disposal a sum of money sufficient to defray the expense of one year's trial of the measure in some malarious town or district in West Africa. To carry out this object a staff of workers with all necessary appliances will shortly be despatched to Sierra Leone to assist in the extirpation of the mosquito. The plan of operation will be to destroy the adult insects which are found in the houses and the larvæ which are deposited in puddles or vessels of water outside. The selection of the town where the experiment will be tried will largely depend upon the degree of coöperation afforded by local authorities Should the experiments prove efficacious an incentive will have been given to local authorities to induce them to adopt similar measures in other malarious towns. The Liverpool School of Tropical Medicine is also to be congratulated upon Major Ross's recent nomination as a Fellow of the Royal Society.

The Population of the City: A Disputed Death-rate.

Dr. E. W. Hope, the medical officer of health, has persistently held that the percentage of deaths to the population was based on an erroneous estimate of the population of the city. It would now appear that he had good reason for disputing the Registrar General's returns which, as he pointed out at the last meeting of the Health Committee, were 50,000 below the actual figures as shown by the recent census returns The average death-rate in the city during the past five years was now shown to be only 23 1 per 1000 instead of 25 per 1000, as computed on the erroneous estimate of population The population of Liverpool has now increased to 685,000, a considerable advance on the census of 1891.

The Progress of Cremation in Liverpool

Cremation makes slow progress in Liverpool. During the year 1900 40 bodies were cremated, bringing the total number cremated since the opening of the crematorium in 1895 to 102.

A New Departure at the Toxteth Workhouse.

Miss Agnes F. Blackadder, M.A , M.D. Glasg., has been appointed to the post of assistant medical officer to the Toxteth Workhouse. The board were somewhat divided over the appointment, but as there were four lady members present (naturally in sympathy with their sex) the young Scotch lady carried the day. It does not appear that any male candidate applied for the post.

University College, Liverpool: Meeting of the Court of Governors.

Dr. T. R. Bradshaw, the recently elected honorary physician to the Royal Infirmary, has been appointed a lecturer on clinical medicine in University College The court of governors of the college at their meeting on May 11th unanimously agreed that the time had come when Liverpool should possess a university of its own and gave some cogent reasons for the conversion of University College into the full-blown University of Liverpool.

May 14th.

WALES AND WESTERN COUNTIES

(FROM OUR OWN CORRESPONDENT.)

The Census Returns and Revised Death-rates.

NOW that the census returns of the county boroughs have been published it is possible to calculate the extent to which the birth-rates and death rates in these towns require re-adjustment. The population of Bristol is barely 1000 above the estimate of the Registrar General, so that the vital statistics based upon that estimate are not appreciably affected. The medical officer of health of Bath estimated the population of that city in the middle of 1900 at 52 600 and the death-rate for the year at 16 per 1000, but the actual population at the end of June, 1900 is found to have been 49,600 and the true death-rate 16 9 per 1000 The Newport population was over-estimated by the medical officer of health to the extent of about 10 000. The revised returns give the population of this seaport on April 1st last as 67,279; in 1891 the population was 54,707. The actual population of Swansea at Midsummer, 1900, was more than 11,000 below the 105,472 upon which the returns for 1900 were calculated, and the birth-rate is consequently raised from 26 7 to 29·7 per 1000 and the death-rate increased from 17·1 to 19·3 per 1000. At Cardiff, however, there is the greatest disparity between the estimate of the Registrar-General and the actual population as shown by the census returns. At the middle of 1900 the official estimate of the population was 194 247, or 35,000 more than the real number as disclosed by the census. The true birth-rate in 1900 was therefore 32·2 per 1000 and not 26 8, and the true death-rate was 16·5 and not 13 8 per 1000 as calculated from the higher estimate. In the last decade the population of Cardiff increased by 33,000 and there were 10,000 houses and shops erected during the same period. In each of the two previous decades the increase was about 45,000. Those interested in the matter quite expected to find that the Registrar-General had over-estimated the population, for the low birth-rates recorded during the past few years were exceptional, and it was known that there was a very large number of unoccupied houses in the town, but it was hardly anticipated that the discrepancy would have been as great as that revealed by the census returns. In his report for the year 1899 Dr. Edward Walford stated that with a view of ascertaining as far as possible the extent of the error in the official estimate of the population an inspection of the district is made in the month of June in each year in order to record the number of inhabited houses in the borough, and an estimate of the population is then made by multiplying this number by the average number of inmates in each house as found at the previous census. In 1899 this local estimate was only 5000 below the estimate of the Registrar-General and affected the death-rate to the extent of only 0 5 per 1000. It would thus appear that the average number of persons per house, which in 1891 was 6 3, must at the present time be very much less.

Knackers' Yards.

An account has already appeared in THE LANCET[1] of the committal to prison of a butcher trading at Taff's Well, Caerphilly, for selling horseflesh as human food without indicating that it was horseflesh. The meat was bought at twopence a pound from a well-known knacker who carries on a large trade in the colliery districts surrounding Pontypridd. This man was convicted at the Pontypridd police-court on May 3rd and fined the maximum penalty of £20 for not complying with section 1 of the Sale of Horseflesh Regulation Act, 1889, which requires those who sell horseflesh for human food to place in a conspicuous place upon their premises and so as to be visible day and night a suitable sign indicating that horseflesh is sold there. Until Nov. 1st 1894, knackers' yards were licensed and regulated by the court of quarter sessions and after that date, outside London, by the local sanitary authorities. The Towns Improvement Clauses Act, 1847, is the statute principally concerned with these premises, but there are several older Acts still unrepealed which contain provisions relating to horse-slaughtering. The first purpose of these Acts was no doubt to prevent horse- and cattle-stealing, but there is no reason why they should not be used on occasion to prevent the distribution for human consumption of unsound meat. The vestry still has the power, and indeed is under an obligation, to appoint annually an inspector of houses and places for slaughtering horses. A person convicted under the provisions of one of these Acts may be punished, not only by the cancellation of his licence, by fine, or by imprisonment, but by whipping.

Cardiff Infirmary.

As already stated in THE LANCET[2] Lady Windsor, Lady Aberdare, Mrs. Mackintosh of Mackintosh, and Miss Talbot recently appealed to the ladies of Glamorganshire for sufficient funds to enable the number of beds in the Cardiff Infirmary at the disposal of Dr. John D. Williams, the gynæcological surgeon, to be increased. The response to the appeal has been very gratifying and is such as to justify the opening of a ward with 10 beds which it is proposed entirely to refurnish.

Colliery Surgeons.

Dr. C. E. Cochrane was on May 10th elected by a majority of 900 votes surgeon to Messrs. Insole's colliery at Cymmer in the Rhondda Valley. Dr. Cochrane is a son in-law of the late Mr. Ivor A. Lewis who had been surgeon to the colliery almost from the sinking of the first pit. With one exception all the colliery surgeons in the Rhondda and Pontypridd districts are paid a poundage of threepence upon the earnings of the colliers. The system which has been adopted in some of the Monmouthshire coalfields, notably in the Rhymney Valley, of paying a fixed salary, has never found much favour in the Rhondda Valley where the workmen appear to be alive to the fact that although in good times the surgeon is well paid, yet in bad times he is very inadequately remu rated and during a strike receives actually no payment at but must still remain in attendance upon those requiring h services. The one exception mentioned above is in the cas of the Ferndale collieries, to which for many years Mr. T. W. Parry has been surgeon. The work-people employed at this and at the adjoining collieries paid a poundage of only twopence until the year 1899, when it was raised to threepence at all the collieries except those at Ferndale. Mr. Parry thereupon gave notice that he would decline to attend any families from which the higher sum was not paid. A large proportion of the workmen paid the threepence, but a section of them formed themselves into a committee, made a levy, and engaged a surgeon at a fixed salary, the committee undertaking to pay the surgery expenses, &c. Several abortive attempts have been made to compel all the workmen to subscribe to the funds of this committee, but at present a majority of the colliers allow the deduction of threepence to be made for Mr. Parry. It is not without interest to remark that the leaders and the more intelligent among the men realise that when they themselves claim to be paid the "standard" rate of wages the same principle must be allowed to all paid workers, whether bishops or bootblacks, and that colliery surgeons have a perfect right to demand to be paid at their "standard" rate.

High Death-rate in Breconshire.

The death-rate recorded in the rural district of Hay in Breconshire, where there is a population of 3200 persons, was 19·2 per 1000 and the infantile mortality was equal to 205 per 1000 births. There were only 16 more births than deaths during the year in this district.

Medical Certificates.

At the April sitting of the Aberdare County Court Judge Gwilym Williams animadverted upon the careless manner in which certificates of inability to work were given by medical men to their patients, and said that in future he should be very chary of accepting such certificates except from those medical men who were personally known to him. These remarks were called forth on the presentation of a medical certificate to the effect that a collier against whom an execution summons had been applied for was too ill to work. It was stated that for nearly a year similar certificates had been lodged in court and execution had in consequence been deferred, whereas the man had been at work nearly the whole of the time. It appears that this carelessness is not to Aberdare, for at the Newport County Court May 10th Judge Owen said that as he was getting untrue medical certificates he would have to ref recognise them.

Bristol Medical Dramatic Club.

The Bristol Medical Dramatic Club gave a series of formances last week at the All Saints' Hall, Clifton, in a the funds of the Bristol Royal Infirmary and the Bri General Hospital. The pieces selected were *The Man in* *Street* and *The Parvenu*. The performances were very su cessful, and it is hoped that a substantial sum will be raise for the institutions.

May 14th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Edinburgh University.

AT the half-yearly meeting of the General Council held on May 1st the Finance Committee reported that the matriculations of medical students which were 2003 in the session 1889–90 had been declining ever since, and in the session 1899–1900 were only 1368. It was suggested that this result might be due in part to the competition of other schools and in part to the increasing amount of study required. The subject has naturally aroused much interest in Edinburgh and is being discussed in the newspapers. Dr. Ernest E. Greville, writing in the *Edinburgh Evening News* of May 11th, complains that owing to the operation of the "fee fund" an undue proportion of the fees paid by medical students is devoted to purposes other than medical instruction—namely, in making up the salaries of 22 professors who in other faculties have not sufficient students to cover expenses. He also complains of the professors' duties being in part performed by assistants and of the number of lectures that students have to attend encroaching on their practical work.

---

[1] THE LANCET, April 27th, 1901, p. 1219

[2] THE LANCET, March 30th, 1901, p. 929.

Glasgow University.

The University Court at its meeting on May 9th was again occupied with the question of finance. Dr. McVail's criticism at a former meeting of the arrangements under which the class fees of women students at Queen Margaret College are paid into the general fee fund was met by a reference of the whole question to a special sub-committee The report of this sub committee supported the existing arrangements, and its adoption was moved by Professor Stewart. Dr. McVail, however, remained unconvinced. He argued that the fees paid by the women students should be directly employed in remunerating their teachers. Paid into the fee fund, which was in the first place absorbed in meeting the normal salaries of the professors, it might well happen that the money would find its way into the pockets of those who were in no way concerned with the teaching of women, whilst the remuneration of the lecturers to women came as a charge on the general university fund. The arrangement, he said, was wrong in principle and bad in practice, and was one never contemplated by the ordinances. On a vote being taken Dr. McVail found only one supporter, whilst seven members voted for the adoption of the report.—The committee appointed to consider the proposal for the establishment of a summer session in Arts recommended the Court to approve generally the scheme advised by the Arts Faculty and to send on the proposals to the other Scottish universities for their opinion. This report was unanimously agreed to —The arrangements in connexion with the celebration of the ninth jubilee in June are exciting, as was to be expected, much enthusiasm among the undergraduates, who are heartily coöperating with the plans of the Court and Senate and who intend, in addition, to have some festivities of their own. Student representatives have been invited from the principal universities all the world over, and it is proposed to entertain the foreign visitors at a grand gaudeamus to be held in the Union on June 12th. The musical arrangements for this are in the hands of a committee presided over by Professor J. Glaister. On the evening of the 14th a university ball is to be held, and during the four days over which the celebrations are to extend the university athletic club is to hold the annual athletic sports and an athletic inter-university contest is to take place.—The following appointments to examinerships have been made by the University Court: William Hunter, M.D Edin., F.R C P. Lond., to examine in medicine and clinical medicine; Albert Carless, B.S. Lond , F.R C.S Eng , to examine in surgery and clinical surgery. Each appointment is for four years, dating from Jan 1st, 1901.

The Epidemic of Small-pox in Glasgow.

The last fortnightly report shows a register of 28 new cases of small-pox as compared with 92 new cases during the preceding fortnight; the deaths during these two periods were six and 16 respectively. The totals since the beginning of the outbreak are: admissions 1817, deaths 230. The number of those in hospital is 75 At a meeting of the Finance Committee of the corporation on May 10th the treasurer asked for instructions regarding the manner in which the extraordinary expenditure arising out of the outbreaks of bubonic plague and small-pox should be dealt with. After consideration the committee agreed to recommend that such expenditure, so far as it was in excess of the revenue of the year, should to the extent of one sixth be included in the accounts of the year and carried forward as a deficit against the revenue of next year, and that the remaining five sixths should be charged in equal proportions against the revenue of the next year and the four succeeding years, thus debiting next year (1901-2) with two sixths of the entire deficiency and each of the four following years with one sixth. The recommendation was discussed by the town council on May 13th and was adopted. The total expenditure, it is estimated, will be between £40 000 and £48 000.

Glasgow Royal Infirmary

At a meeting of the medical and surgical staff held on May 10th Mr. Hugh Brown was presented with an address on the occasion of his retiring from the chairmanship of the house committee which he has held for a term of 16 years. The presentation was made by the senior physician, Dr. John Dougall, and the senior surgeon, Mr. Henry E. Clark, C.M.G. In the course of his reply Mr. Brown referred to the proposed scheme of reconstruction and spoke hopefully of its speedy accomplishment. In regard to the site he was convinced that no better position could be found, unless the managers were prepared to purchase an estate on the outskirts of the city, and this would mean the removal of the infirmary from the centre of the busy manufacturing district for the surgical emergencies of which some such institution was a necessity. The chairman of the meeting was Mr. J. D Hedderwick who succeeds Mr. Brown as the chairman of the house committee. Two important professional positions in connexion with the infirmary are vacant—viz , a physicianship, vacant by the retirement of Dr Dougall, and the Professorship of Medicine in St. Mungo's College.

Bequests to Glasgow Institutions.

The trustees of the late Mr. Adam Teacher, acting in accordance with the will of that gentleman, have announced the following bequests Glasgow Royal Infirmary, £6500; Western Infirmary, £4800; Victoria Infirmary, £1700; Royal Hospital for Sick Children, and Glasgow Eye Infirmary, each £1200, Maternity Hospital, £800; Central Dispensary, Asylum for the Blind, Deaf and Dumb Institution, Lock Hospital, Cancer Hospital, each £600; Dental Hospital, £500; Samaritan Hospital, Ear Hospital and Dispensary, Hospital for Skin Diseases, and each of the Dorcas Societies of the three general infirmaries, each £300. Various convalescent homes and other charities also receive legacies. The total sum distributed amounts to £36,434.

Donations to the Paisley Hospital.

The directors of the Royal Alexandra Infirmary have received the following donations: (1) an additional donation of £1000 from Mrs Stewart Clark to the fund of £5000 instituted by her for the relief of incurables; (2) a sum of £736 19*s*. from Mr. James Coats to wipe out the deficit on the ordinary income and expenditure account of Dec. 31st last; and (3) a donation of £5000 from Mr. James Coats towards the reduction of the building fund debt.

May 14th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS)

National Maternity Hospital, Hollis-street, Dublin.

THE annual meeting of the friends and supporters of this hospital took place on May 10th in the Mansion House. On the motion of the Right Hon. the Lord Mayor the chair was taken by His Grace the Most Reverend Dr. Walsh, Roman Catholic Archbishop of Dublin. A very satisfactory report of the committee of the hospital was read by Mr. Andrew Horne, F R C P Irel., after which addresses were delivered by the Archbishop, Mr Brereton Barry, K C , Mr. Bodkin, K C , the Lord Mayor, Lieutenant-Colonel Ross of Bladensburg, C B , D L , and others.

Royal Medical Benevolent Fund Society of Ireland.

At the annual meeting of the subscribers to the Belfast or county Antrim branch of this society held in the Museum, Belfast, on May 8th, the President (Professor W. Whitla) being in the chair, it was reported that £190 17*s* 6*d*. (as compared with £75 1*s* 6*d* last year) had been contributed during the year—an increase due to the exertions of the President. There were 146 members of the medical profession in Belfast and 32 in the county districts who had subscribed, as against 67 and 20 respectively in the previous year A sum of £180 7*s* 7*d*., the largest contribution since 1876, had been remitted to the parent society in Dublin. 44 practitioners in Belfast and many of the country members of the profession did not subscribe On the other hand, the students of Queen's College have subscribed. Professor Whitla was re elected President for the ensuing year, Dr. H. L. McKisack secretary, Dr. R Purdon treasurer, and an ordinary committee and a collection committee were appointed.

The Ulster Medical Society.

The seventh meeting of the Ulster Medical Society was held in the Belfast Museum on May 9th, Dr. W. A McKeown, ex-President, being in the chair.—Dr. A Fullerton showed a case of marked Scoliosis in a boy, aged 13 years, and a case of Congenital Absence of the Radius and Thumb, with a radiogram of the same.—Mr. A. B. Mitchell showed (1) a patient on whom he had operated for Fractured Patella, with radiograms of the case taken shortly after the accident, after two weeks' treatment by extension, and after operation; (2) a simple form of Jacket for Spinal Caries; and (3) radiograms of a case of Congenital Absence of the Radius and of a case of Fracture of the Os Calcis treated by wiring.—Professor T. Sinclair showed radiograms of Fractures involving the Knee-joint treated by wire suturing.—Dr. Fullerton read a paper on "Tuberculous Lymphatic Glands."—Dr. W. Calwell showed a specimen of Malignant Disease of the Pancreas. He also exhibited a case of Tuberculous Skin Disease, and a boy with an Enlarged Spleen.—Interesting discussions followed these communications, some of the speakers limiting the wiring of a fractured patella to a separation of the fragments of more than three-quarters of an inch, while others thought the proper treatment of all fractures about joints was to wire the fragments.

Armagh County Asylum.

At the monthly meeting of the governors of the Armagh Asylum, held on May 13th, the half-yearly report of the auditor of the Irish Local Government Board was submitted which stated, among other matters, that the accounts for the half year were in a most unsatisfactory condition. There were no financial entries in the minute-book, and the financial statement book of receipts had not been confirmed by the committee for any month. No finance committee had been appointed and the bills bore no indication of having been examined or passed. Three of the treasurer's authorities were incorrect and the amounts paid by the treasurer in July and October exceeded the authorised totals by £100 and £7 respectively. The Lord Lieutenant's sanction to the increase of salary voted to the assistant medical officer had not been obtained. The amounts due by the late clerk, who had absconded, were £56 9*s.* 7*d*., and it was presumed that immediate steps would be taken to recover the sum from his sureties. The committee had evidently disregarded the suggestion of the auditor to discontinue the monthly luncheon, and there was, therefore, no course open to him but to surcharge the amounts thus illegally placed upon the ratepayers. It was impossible to ascertain the full amount, but £5 17*s.* 8*d.*, the amount paid for wine and extras, would be disallowed. It was but right to say that many members of the committee were opposed to the luncheons and did not attend them. Many other irregularities were mentioned and the report went on to say that for this state of affairs the responsibility rested not only on the medical superintendent but also on the committee, and it would be necessary in future that the former should exercise the intelligent supervision over the books which was required by the regulations of the asylum accounts order, and that the committee should, as a committee or as a body, satisfy themselves that the officers were discharging the duties for which they were paid.

Small-pox in Belfast.

Up to the present time there have been five cases of small-pox in Belfast with one death and one suspected case.

May 14th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Sanatoria for Tuberculous Patients.

AT the meeting of the Academy of Medicine held on April 30th M. Lemoine, speaking both in his own name and also on behalf of his colleague M. Carrière, said that in France after too long a period of apathy medical opinion was following with undue rapidity the course taken by the Germans, without being sure even yet that the sanatorium system was the only trustworthy method of treating tuberculosis. To cure this terrible disease, which caused the death of 150,000 persons in France every year, it was necessary above all things to remove the patient from the conditions under which he had contracted tuberculosis—these being, in the first place, overwork, intemperance, and overcrowding in towns; and, in the second place, organic taints, inherited disease syphilis, intemperance of parents, &c. Tuberculous patients living an easy life, supplied with unlimited food, and spending their time in the open air, were undergoing the proper treatment for their disease, and they could combine all these conditions without crowding into sanatoria. The majority of the tuberculous patients sent to renowned establishments in foreign countries came back very little improved, and what progress they had made was rapidly lost on returning to their homes. Then there were interminable and costly "seasons." The majority of these establishments were excellent properties in a financial sense. M. Lemoine drew a somewhat unflattering picture of certain sanatoria. In one sanatorium some of the patients contracted pneumonia owing to the cold; others, deprived of the company of their families and abruptly withdrawn from an active life, fell into a deplorable state of melancholy which was encouraged by the spectacle presented by their fellow patients. In another the patients gave themselves up to all sorts of excesses with the connivance of the managing officials. M. Lemoine has arrived at the conclusion that in any place where patients can live under the hygienic conditions mentioned above the treatment of tuberculosis may be carried out as successfully as in sanatoria, or indeed even more so. The proposal of M. Brunon of Rouen to transform into sanatoria the wards of communal infirmaries or even peasants' cottages in suitable situations was an excellent one. On the other hand, the course to which the State seemed to be committing itself, in the construction of huge establishments on the plan of that at Angicourt was costly out of all proportion to the results. To treat in this way the 300,000 tuberculous subjects in France would require, at 6000 francs (£240) per bed, an original outlay of 1,800,000,000 francs (£72 000 000) and an annual expenditure of 328,000,000 francs (£13,120,000). With a vastly smaller sum it would be possible to carry out efficacious measures of prophylaxis and to obtain much more certain results in the way of cure by, in the first place, discouraging intemperance, by admitting patients freely into the existing establishments in all country places, only making necessary structural alterations and placing them under the control of the local medical men, and, finally, by enlarging the field of action of the Poor-law medical officers with a view to the repression of the disease.

The Use of Blisters in Diagnosis.

M. Roger and M. Josué described to the Société Médicale des Hôpitaux on May 3rd a truly original diagnostic method based upon the microscopical examination of the serous fluid contained in the vesicle which rises when a blister is applied. This fluid always holds in suspension a great number of cells. In the normal individual a large proportion (25·19 per cent.) of polynuclear eosinophile cells is found. In persons suffering from infectious complaints these cells are fewer in number or they may be completely absent, and they reappear if the organism prevails over the infection. The examination of blister fluid, therefore, supplies valuable information as to the intensity of the impregnation of the system by infectious toxins and as to the action of the blood-forming organs. These effects depend on the influence exerted by microbial toxins on the bone marrow. When acted on by these poisons bone marrow gives rise to polynuclear neutrophile cells and is consequently unable to supply eosinophile cells. But the application of a blister creates a tendency to the production of eosinophile cells, and the examination of the effused fluid shows to what extent the bone marrow is capable of forming these elements. In ordinary chronic tuberculosis the polynuclear neutrophile cells preponderate greatly, the eosinophile cells are either very few or altogether absent, and the proportions of the other cells are somewhat variable. The cells have often a peculiar appearance, being swollen as if distended with fluid and much larger than in normal individuals. This condition of the cellular elements, without being confined to tuberculosis, is more marked in it than in other infections. In one case in which the condition was very evident it led the observers to the discovery of the existence of latent tuberculosis. In a case of fibroid phthisis M. Roger and M. Josué found 3 2 per cent. of eosinophile cells. In a tuberculous patient at the very beginning of the disease and in general good health there were 7 8 per cent. of eosinophile cells. In two cases of acute sero-fibrinous pleurisy—i.e., in localised tuberculosis of the pleura—tending towards recovery there were 13 7 and 18 per cent. of eosinophile cells. In erysipelas, mumps, acute tonsillitis, polymorphous erythema, and broncho-pneumonia they have seen the number of the eosinophile cells vary from 0 to 2 or 3 per cent., according to the stage of the disease and the tendency to recovery. By this method of diagnosis very slight pathological changes could be recognised; it gave information as to the state of the blood-forming organs and as to the degree in which certain toxins might be present in the organism.

Necropsies in the Army, the Navy, and the Colonies.

In the army the rules of the service relative to necropsies give the medical officer the right of making them or of having them made under his direction whenever he considers them to be necessary. In practice necropsies are only made (1) when death has been sudden and unexpected; (2) when it has occurred out of hospital either in town or in barracks; and (3) when it has been the result of accident or is ascribed to ill-usage or neglect. The formal report of these necropsies is taken into consideration at the inquiry which in these cases is always held by the military authorities. In the navy the general idea is the same, but in addition, since many sailors are married, necropsies are made for the purpose of establishing, if necessary, the claims of the widows and orphans to a pension. According to M. Grandjux, who has just made a communication on this subject to the Society of Legal Medicine, a recent circular of the Minister of Marine orders that post-mortem examinations shall be made on the bodies of all sailors who have died in hospital. This decision has been come to in consequence of a family protesting because a pension had been refused them on the ground that the Conseil de Santé had not been able to obtain a necropsy as the relatives had claimed the body immediately after death. For vessels at sea a decision of March 16th, 1899, orders that unless there is some insurmountable obstacle necropsies shall be made in the cases of all men dying from ill-defined diseases, always with the view of establishing the claims of widows and orphans to a pension when death has been due to causes connected with the duties of the deceased. The same conditions hold good in the colonies. Speaking generally, says M. Grandjux, in the army, the navy, and the colonies, necropsies on the one hand by fixing responsibility protect individuals against ill-usage and neglect, and on the other hand for the families of the deceased they serve to establish a right to pensions. Necropsies are therefore a means of social defence and protection.

Arsenic in Beer.

At its last meeting the Conseil d'Hygiène et de Salubrité of the Seine adopted the following motion:—

> Having regard to the cases of poisoning which have occurred in England, and especially in Manchester, although arsenic has not yet been found in imported beer in Paris, the Council requests the Prefect of Police to call the attention of the responsible Ministers to the possibility that foreign beer, syrup, confectionery, &c., imported into France may contain unwholesome substances or even poisons.

May 14th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Battle of the Clubs in Leipsic.

THE strike of the medical officers of the Leipsic sick club has now come to an end through the mediation of the municipal authorities. It has been agreed: (1) that the committee of the medical officers' union shall consist exclusively of members engaged in club practice and not of other medical men; (2) that a permanent court of arbitration shall be created, consisting of members of the Leipsic medical chamber and members of the committee of the club, presided over by the chief medical officer of the city of Leipsic, and empowered to settle any dispute arising between the club and its medical officers; and (3) that the club shall maintain the free choice system and shall not issue orders direct to the medical officers without reference to their committee. Both parties have accepted these conditions and the strained relations so unpleasant to both the medical officers and the club members have now happily disappeared. It is, however, an advantage that [illegible] vn by these events to the state [illegible] many and especially to club [illegible] that in the forthcoming legislation relative to sick clubs the interests of the medical profession will be regarded more than has hitherto been the case.

Pharmaceutical Chemists and Sick Clubs.

A dispute of a different nature and one in which the medical profession is only concerned indirectly deserves to be noticed as it affords a good example of the aggressive policy pursued by the sick clubs. The scene of the present conflict is in Berlin, the opposing forces being the majority of the clubs on one side and the Berlin licensed pharmacies on the other. To make the position of affairs intelligible it will be necessary to give some account of the German law relative to pharmaceutical businesses. The number of pharmacies (Apotheken) is limited for every town by the authorities and is increased only in proportion to the growth of the population. When a new pharmacy is to be established in a district of any town candidates, who of course must be qualified pharmaceutical chemists (Apotheker) are invited to make application to the local authority, and the licence is, as a rule, given according to seniority. Formerly, the licence could be sold at once to any other qualified pharmaceutical chemist, but this is no longer possible under the law. When the licence has been granted the holder is bound to establish the pharmacy in the district assigned to him within a certain time and to conduct it himself He cannot sell it, but if at any time he wishes to retire he has to give back his licence which is then granted to another applicant. If he dies, the business may, however, be conducted on behalf of the widow and children by an authorised representative for 10 years. The licensed pharmacies are all under Government control and the official requirements as to the state of the premises, the quality of the drugs, and the laboratory arrangements must be strictly observed. A good deal of money is therefore required for establishing a pharmacy and many of the licensees, especially in the larger towns, where house rent is very high, have to borrow money and to pay heavy interest, so that their financial position may from the beginning be rather precarious. In addition to the licensed pharmacies there exist, especially in the larger towns, drug-stores which are not under special Government control, but are subject only to the general laws affecting workshops and trades. Their number is therefore not subject to any limitation and no licence is required, but they must not sell poisons, neither may they compound medicines. Their business consists only in the so-called Handverkauf (sale of simple remedies such as may be purchased without the written prescription of a medical man). To return to the above-mentioned conflict between the clubs and the pharmacies it has to be explained that hitherto it has been the rule that the club members were allowed to order their medicines in any licensed pharmacy in Berlin. When they showed a prescription written by a medical officer of their club on a voucher with the club stamp they had nothing to pay, as the druggist's charges for all drugs, medicine, &c., were settled quarterly at the club offices. Medicine was thus obtained on credit and other facilities which it would take too long to explain were granted to the club members by the pharmacies. The clubs, on the other hand, agreed to instruct their members to order everything from the licensed pharmacies even those compounds which were obtainable in ordinary drug-stores. This state of things had gone on as long as sick clubs had existed in Berlin, but some time ago a movement was set on foot which was intended to have the effect of withdrawing some of the custom of the clubs from the pharmacies It was alleged that the prices charged by the pharmacies, although fixed officially by the Government, were much too high, that great profits were exacted even from the poorer classes, and that a discount of at least 10 per cent. ought to be granted to the clubs. The Association of Proprietors of Licensed Pharmacies declined to allow any abatement of their ordinary prices and the great majority of the Berlin clubs then decided to boycott the pharmacies so far as the law permitted, the members being instructed to deal as much as possible with the drug stores. For obtaining poisonous substances, and specially compounded medicines which could only be sold by licensed pharmacies, the committee of the united clubs selected out of the 200 pharmacies in Berlin and its suburbs 60 with which club members were authorised to deal to the exclusion of the rest In this way the clubs hoped that disunion would arise among the licensees and that their resistance would be broken The licensed pharmaceutical chemists had, however, previously to the announcement of the boycott agreed among themselves not to enter into any negotiations with the clubs without the consent of the pharmaceutists' union and to pay a fine in the event of failing to keep their agreement. Moreover, the money paid by the clubs to the 60 selected pharmacies was to be divided according to the previous year's income among all the 200 pharmacies which were open. The pharmaceutists' union also issued public notices to the effect (1) that the proceedings of the clubs were not in the interest of the members who, when they required medicine, instead of applying at the nearest pharmacy, might have to walk at night for half an hour before coming to one of the selected pharmacies; (2) that the drugs kept in the drug-stores, not being inspected by the district medical officer as in the pharmacies, were not of reliable quality; and (3) that the drug-stores being subject to the general trade laws must be closed on Sundays and from 9 P.M. to 7 A.M., whilst the pharmacies were open every day and medicines could also be obtained there at night. The conflict between the pharmacies and the clubs is still going on, to the great inconvenience of the club medical officers, as the system to be followed in giving prescriptions is now more complicated than before. There is, however, no doubt that the boycott will very soon be withdrawn, firstly because the club patients will not willingly submit to all the arrangements connected with it, and secondly because it will be useless, owing to the strong organisation of the licensed pharmacies. These circumstances are now described at length because they are of more than mere local interest, illustrating as they do the present state of club practice, a question of much importance to the medical profession in Germany. If the organisation of the medical profession were made as strong as that of the pharmaceutical profession things would become better than they are now.

May 13th.

Obituary.

JOHN CAVAFY, M.D., F.R.C.P. LOND.

DR. CAVAFY, for many years one of the physicians to St. George's Hospital, died suddenly in London on April 28th. He was born on June 12th, 1837; his parents, George John and Mary Cavafy, being of Greek descent, and he received his early education at Brighton and University College, London. He was destined for business and for four years worked in his father's office, but his tastes appeared to have another direction, for from boyhood he always showed great interest in natural history, especially botany and ornithology. Ultimately he determined to relinquish the business career on which he had entered and to devote himself to medicine, for which purpose he entered St. George's Hospital as a student in 1861, being then, of course, rather older than the majority of his classmates. In 1867 he took the M.B. degree at London University, on which occasion he had a place in the first class, and in 1869 he became M.D. In 1868 he was admitted a Member of the Royal College of Physicians of London and in 1876 he was elected a Fellow. At St George's Hospital he held a number of appointments, being at first demonstrator in histology and afterwards lecturer in comparative anatomy, medical registrar, and lecturer on physiology and medicine. In 1875 he was assistant physician and in 1882 he became full physician. He was also physician to the skin department at St. George's Hospital, and during the International Medical Congress held in London in 1881 he was honorary secretary to the section of skin diseases. His other appointments included those of examiner in medicine in London University and to the Royal College of Physicians of London, consulting physician to St. Peter's Home, Kilburn visiting physician to the Atkinson-Morley Convalescent Home, and physician to the Victoria Hospital for Children. In 1896 he suffered from enteric fever which permanently impaired his health, and in 1898 he recognised that his best course would be to resign his duties at St. George's Hospital, of which he was then senior physician, and to leave London where he had long resided in Upper Berkeley-street. He was accordingly elected consulting physician to St. George's Hospital and went to reside at Hove, Sussex. Dr. Cavafy married Marigo, the youngest daughter of Mr. Antonio Ralli, and has left one daughter. He was the author of numerous contributions to St. George's Hospital Reports and the Transactions of various societies. In THE LANCET he published articles on Urticaria Pigmentosa and on the Education of the General Practitioner in 1880, and a description of a case of Yellow Atrophy of the Liver in 1897.

A medical friend of Dr. Cavafy, an intimate acquaintance of more than 40 years' standing, writes: "In Dr. Cavafy's death the profession has sustained a heavy loss which will be felt deeply by everyone with whom he came into contact; most deeply by those who knew him best. From the moment he joined the medical school at St. George's Hospital it was felt by all connected with it that a man had come among us of exceptional ability with very varied attainments. It was immediately recognised by his contemporaries that John Cavafy was a man to be appealed to on subjects outside the profession and to be trusted whenever he expressed his opinion. Having served for a time as medical registrar at St George's and as curator at the Westminster Hospital he became assistant physician at the former, and it was then that the opportunity was afforded him of displaying his power of observation and his special skill in imparting knowledge. Always clear, always emphatic, very rarely dogmatic, he had few equals as a teacher of medicine. Remarkable accuracy characterised all his work. Whether it was a chemical analysis, whether it was the compilation of a lecture, or the correction of a proof,—all was done with the same scrupulous exactness. He was a really good linguist, and it was due chiefly to this that in his knowledge of medical literature, both English and foreign, he was superior to most of the physicians of his time. To his talents as an artist some very beautiful water-colour drawings in the museum at St. George's bear ample testimony. It was ever a matter of regret among his friends that he devoted so little of his time to his brush. Dr. Cavafy was an excellent musician, he possessed a most delicate ear and a highly retentive memory. But apart from these varied attainments he will be best remembered for the affectionate nature which endeared him to his friends, and for his intense aversion to anything 'snobbish' or underhand. These characteristics influenced his every action in life. Courteous and genial to all, he was always indulgent to the faults of others; he had no harsh word for the conduct of anyone, unless it were tainted with injustice or dishonour. With intellectual qualities of the highest order, with an infinite sense of humour, with a keen and ready wit, he was a most delightful companion. He was a learned physician; he was a just and honourable man. No man ever made firmer friends or fewer foes."

CHARLES HITCHMAN BRADDON, M.D. ST. AND., M.R.C.S. ENG., L.S.A.

THE death of Dr. C. H. Braddon of Manchester, at the age of 64 years, has caused widespread regret among his numerous friends. Dr. Braddon was the eldest son of the late Charles Braddon, surgeon, of Upton-on-Severn. He received his medical education at St. Thomas's Hospital, where he held the post of resident accoucheur. He then became assistant medical officer in the Derby County Asylum, from which place he went to Manchester. In 1862 he was appointed resident physician's assistant to the Manchester Royal Infirmary. In December of the same year he became assistant medical officer of the Bridge-street Workhouse. In 1864 he was appointed medical officer of the Cathedral district. In these offices he acquired that intimate knowledge of fevers which qualified him to fill so well the position of chairman of the Hospitals Sub-committee of the corporation. About this time he started in practice in Cheetham-hill, and in 1866 he was appointed surgeon to the Strangeways Prison, a position which he held for more than 20 years. For many years he acted as visiting physician to the Clifton Asylum. In 1872 he became secretary and treasurer for the Manchester district to the Royal Benevolent College, Epsom, and worked strenuously to obtain fresh adherents to that admirable institution. Since its inception he acted as treasurer of the Manchester Clinical Society of which he had also been chairman. For many years he was secretary to the Manchester Medico-Ethical Society. He also acted as medical officer to the Bethesda Home for Crippled Children, in which he took a deep interest. Recently he was elected chairman of the Manchester Medical Guild. His public services were by no means entirely of a professional character. In 1892 he was elected to the City Council as one of the representatives of Cheetham Ward, a position which since that time he has retained with the goodwill of all. He served on three committees, and in 1896 became chairman of the Hospitals Sub-Committee, an office which he filled with assiduity and felicity. The establishment of administrative measures in Manchester for the prevention of tuberculosis was in no small degree owing to his sympathetic support. In politics he was a Conservative and he acted as chairman of the Conservative Association in Crumpsall. He was a Churchman and was churchwarden at St. Luke's for many years, taking much interest in the church and in the schools. He was a Justice of the Peace for the county of Lancaster. Very popular in his profession, in private life he had many friends. Genial, even-tempered, kind-hearted, and just, he was at the same time a man both of decision and judgment. Careful and sparing of speech, his remarks carried weight and advanced the object which he supported. He has left a widow and grown-up family.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. S. Lamanski of St. Petersburg, a physiologist and physicist whose published papers deal especially with electrical fluorescent phenomena in physiology. He was 60 years of age, and as a student had worked under Rudolf Leuckart, Helmholtz, and other distinguished physiologists.—Dr. H. Gosse, Professor of Forensic Medicine in the University of Geneva.—Dr. W. von Heinecke, Professor of Clinical Surgery in Erlangen.—Dr. von Iterson, Professor of Clinical Surgery in Leyden.—Dr. Karl Laufenauer, Professor of Psychiatry and Neurology in Budapest.—Dr. H. Napias, Director of the Assistance Publique of Paris.—Dr. F. Wayland Abbott, a well-known New York ophthalmic surgeon.

Medical News.

AT the meeting of the Cheltenham Town Council held on May 6th it was resolved to increase the salary of Dr. J. H. Garrett, medical officer of health, from £500 to £600, on account of his excellent work during the past nine years.

BEQUESTS TO MEDICAL CHARITIES.—Mr. T. E. Exley, who died recently at Trowbridge, has bequeathed the following legacies:—Bristol Royal Infirmary, £1000; Bristol General Hospital, £1000; and the Trowbridge Cottage Hospital, £500.

MONUMENT TO PROFESSOR HUXLEY.—It is proposed to erect at Ealing (the place of his birth) a memorial to Professor Huxley. The form it will take is not at present decided upon. Subscriptions to the fund may be forwarded to Mr. T. Simpson, Fennymere, Castle Bar, Ealing.

BRISTOL MEDICAL CHARITIES.—The late Miss Mary Cannington of Bristol bequeathed £10,000 in consols to the Bristol Royal Infirmary, £5000 to the Bristol General Hospital, and £500 each to the Bristol Dispensary and the Bristol Eye Hospital.

NATIONAL SANATORIUM FOR CONSUMPTION, BOURNEMOUTH (OPEN-AIR TREATMENT).—The annual general meeting of governors of this institution was held in London on May 9th at the Westminster Palace Hotel, the Earl of Eldon, the President, occupying the chair. The annual report of the committee for the year 1900 was placed before the governors, the statement of accounts showing a balance in hand of £122. Special measures were considered for meeting the increase in necessary annual expenses incurred by the efficient carrying on of the open-air treatment of patients, which had been successfully adopted for some time past. Measures having been also discussed for obtaining increased funds to carry out the proposed extension of the building, it was resolved that a further appeal for donations and subscriptions should be made to the public. The following resolution was also unanimously passed:—

> That the humble petition of the governors and committee of this charity be placed before His Majesty the King for his gracious continuance of the Royal patronage formerly granted by Her late Majesty Queen Victoria since the year 1869.

THE ROYAL INSTITUTION.—On Friday evening, May 10th, at the Royal Institution, Professor J. C. Bose gave a lecture on "The Response of Inorganic Matter to Mechanical and Electrical Stimulus." Referring to the production of a current of electricity in the optic nerve when the stimulus of light was applied to the eye, he said that although the electric response had been considered to be a delicate sign of life, as a matter of fact inorganic bodies also responded to similar tests. Both the form of response and the condition under which it was manifested showed a remarkable similarity between living and inorganic matter. This argument Professor Bose sustained by a number of statements and he showed an artificial retina which was sensitive to light and to electricity.

UNIVERSITY OF CAMBRIDGE.—H. C. Haslam, M.A., M.B., B.C., of Gonville and Caius College, has been elected to a John Lucas Walker studentship in pathology.—Dr. Sladen, who received permission to leave his work in Cambridge to join his mobilised militia battalion for service in Ashanti, and who has now returned, has been reinstated as a second student.—At the congregation on May 9th the following medical and surgical degrees were conferred:—M.D.: F. M. Pope, M.A., Magdalene College; A. R. Paterson, M.A., Emmanuel College; and A. B. Green, M.A., Downing College. B.C.: A. E. Hodder, King's; H. Gordon-Smith, C. H. Miller, G. H. Orton, and J. C. S. Rashleigh, Trinity; J. A. Glover, St. John's; C. H. Glenn, Pembroke; R. F. Williams, Caius; and A. W. Greig, Jesus.

PREVENTION OF TUBERCULOSIS.—The annual meeting of the Devon and Cornwall branch of the Association for the Prevention of Consumption and other forms of Tuberculosis was held at Plymouth on May 9th under the presidency of the Earl of Mount-Edgcumbe. There were also present Surgeon General Evatt, Dr. Lionel Weatherly, Dr. E. L. Fox, Mr. P. Swain, Dr. H. W. Webber, Mr. T. Bulteel, Mr. C. Wills, and Dr. F. Bushnell. The report alluded to the smallness of the income of the branch, the balance over expenditure being only £31, and stated that in order to carry out the work satisfactorily a larger income was necessary. It was stated that over 1000 deaths had occurred from consumption in the two counties during the past year, a decrease of 100 as compared with the preceding 12 months, and it is estimated that about 3000 are suffering from the disease. The committee advocate the establishment of a bacteriological laboratory for the early diagnosis of consumption, a home for advanced cases, and a sanatorium.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.—A quarterly meeting of the Royal College of Physicians of Edinburgh was held on May 7th, Dr. Fraser (the President) being in the chair.—The President reported that together with the Vice President and the Treasurer he had been received by His Majesty the King who graciously accepted the loyal address of the College and handed to him the following reply which the President read to the Fellows standing:—

> [illegible] warmest sympathy and support."

Lewis Campbell Bruce, M.D., M.R.C.P. Edin., and Claude Buchanan Ker, M.D., M.R.C.P. Edin., were admitted by ballot to the Fellowship of the College.—On a ballot the following candidates were admitted to the Membership of the College—viz.: David Duncan Main, L.R.C.P. & S. E., Hangchow; John Jackson Berry, M.D., Manchester; John Malcolm Farquharson, M.B., C.M. Edin., Edinburgh; Thomas Manners-Smith, M.B., B.C. Cantab.; Francis Herbert Aylen Clayton, M.D. Edin.; and James Garvie McNaughton, M.D. Edin.—The Registrar reported that since the last quarterly meeting 32 persons had obtained the Licence of the College by examination.—The College approved of the address of congratulation to the University of Glasgow on the occasion of the celebration of the ninth jubilee of its existence.—On the nomination of the President the following delegates were elected to represent the College at the British Congress on Tuberculosis—viz.: the President, the Vice President (Dr. James Andrew), and Dr. G. A. Gibson and Dr. R. W. Philip.—By vote of the College two Licentiates were expelled from the College and deprived of their Licences, and a third was deprived *sine die* of all his rights and privileges as a Licentiate of the College.

The City Coroner's Superannuation.—The Corporation of London has granted Mr. S F. Langham on his retiring from the office of coroner an allowance of £600 a year.

Presentation to a Medical Man.—Mr. Thomas Carson Fisher, M.D. Dub, of Bowral, New South Wales, on his leaving that town after a residence there of 11 years, has been presented with an illuminated address, a purse of sovereigns, and a travelling bag.

The Stockport Isolation Hospital.—The alleged mismanagement of the Isolation Hospital in Dialstone-lane was discussed by the Stockport Town Council recently. The discussion did not make quite clear whether the patients were kept short of food as was alleged, but the acrimonious feeling which it is evident exists between some of the parties concerned is more than regrettable.

Recovery of Medical Fees.—At the Exeter Police court on May 7th Mr J. Somer and Dr. J. W. Sandoe, surgeons, of Broadclyst, Devon, sued the executors of a deceased lady for £7 17*s.* for professional services. For the defence the solicitor pleaded the executors' "right of preference and retainer," but his honour Judge Woodfall gave judgment for the plaintiffs.

Unsuitable Food.—At an inquest held in Bristol on May 7th upon the body of an infant, aged seven months, who had died suddenly, medical evidence showed that death resulted from convulsions, probably caused by some fried fish which was discovered in the stomach at the post-mortem examination. The jury returned a verdict accordingly.

Literary Intelligence.—We are informed that Dr. G. Vivian Poore's volume of "Essays on Rural Hygiene," first published by Messrs. Longman in 1893, has just been issued at Wiesbaden in a German translation under the title of "Essays uber Hygiene auf dem Lande." Dr. Eugen Farkas of Budapest, who was engaged on a Hungarian version of the same work, has unfortunately died before completing the translation.

Unsatisfactory Vaccination.—At the meeting of the Barton Regis (Bristol) Board of Guardians held on May 10th it was decided to support the action of the Portsmouth Union and petition the Local Government Board that for children vaccinated privately the operation should be of the same standard as for those vaccinated publicly. The chairman (Mr Shipley) said that the way in which some vaccinations were performed in one place was a complete farce

French Hospital and Dispensary.—The thirty-third annual dinner in aid of the funds of this institution was held on May 11th at the Hotel Cecil, His Excellency M. Paul Cambon, the French Ambassador, being in the chair, supported by the Lord Mayor and Sheriffs and many members of the *corps diplomatique.* After the toast to M Loubet, President of the French Republic, had been drunk the Chairman proposed that of the King and the Royal Family, mentioning that His Majesty had been graciously pleased to continue the patronage which Her late Majesty had extended to the French Hospital. In proposing the toast of the Founders, Benefactors, and Supporters of the hospital the Chairman said he was pleased to see so many representatives of the diplomatic body present, and after thanking the Lord Mayor for his support he congratulated Sir William MacCormac on his recent promotion in the Legion of Honour. M. Metaxas, the Greek Minister, responded on behalf of the guests and spoke in terms of commendation of the services rendered to the hospital by the secretary, M. Pontdepeyre. He was followed by the Lord Mayor who pointed out that the hospital, which was founded in 1867 to accommodate 16 patients, now had accommodation for 70, it having been rebuilt under very favourable conditions. Dr. Ogilvie responded on behalf of the medical staff in a humorous speech, delivered partly in English and partly in French. The musical programme, under the direction of Signor Tito Mattei, was unusually well filled and well rendered by Miss Percival Allen, M. H. Leoni, Miss Florence Venning, Master Bernard Crook, and other vocalists.

Cost of Vaccination.—At the meeting of the Penzance Board of Guardians held on May 9th some discussion took place upon the amount of the vaccination fees It was stated that in 1898 the fees amounted to £108 and in 1900 to £377. Some members considered that it would be more economical to obtain a medical officer to devote the whole of his time to the duties of the office, but on the clerk explaining that a scale of fees had been fixed by law and that the guardians had adopted the minimum the matter dropped.

Llandaff and Dinas Powis Rural District.—The annual report of Dr. R. Prichard, medical officer of health of the Llandaff and Dinas Powis Rural District, states that in the district (which is one of the largest in the kingdom, having an area of nearly 102 square miles, with a population of 22,400) the births during 1900 numbered 658, equal to a rate of 31 67 per 1000. 332 deaths were registered, giving a death-rate of 14·6 per 1000. The average age at death was 36¼ years. The infantile deaths were at the rate of 3 76 per 1000, and in the proportion of 118 per 1000 births.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS

Gases from Alkali Works.

There has been introduced into the House of Lords a short measure to strengthen the law with regard to the pollution of the atmosphere by acid gases from alkali and other chemical works.

Lunacy Bill for Ireland.

The Bill introduced by the Government to amend the law in Ireland relating to lunatics embodies several provisions of the law in England with regard to this subject. For instance, it proposes that the Lord Lieutenant may, in addition to his power of absolute discharge, also discharge a criminal lunatic conditionally. In the present state of the law in Ireland a criminal lunatic can only be released without condition. Another provision of the Bill deals with the ill treatment of lunatics, and a third with the expenses incurred in the care and treatment of criminal and dangerous lunatics.

HOUSE OF COMMONS.

THURSDAY, MAY 9TH.

Medical Provision in the West of Ireland.

Mr. DUFFY asked the Chief Secretary to the Lord Lieutenant of Ireland (1) whether he had any further news to communicate to the House respecting the spread of fever in the Arran Islands; (2) whether he was aware that the medical inspector of health fell a victim to the malady and was left for an entire week without a medical attendant until he died; whether any complaints had reached him respecting the neglect shown to this gentle [illegible] ot in the execution of his duty, and wheth [illegible] was temporarily appointed or volunteered to look after and discharge his duties during his illness; and (3) whether, in view of all the circumstances, he will cause an inquiry to be made into the entire matter.—The ATTORNEY-GENERAL for IRELAND replied to the question, saying that the latest report from the acting medical officer of health, received on April 25th, was to the effect that the epidemic had passed away. As regards the late medical officer of health, it appeared that although he had recovered from fever he had since succumbed to pneumonia. He had no information as to the other matters referred to in the second paragraph When the late medical officer fell ill the islands were temporarily placed in charge of Mr. M. F. Lyden, the medical officer of Galway No 1 Dispensary District, and a medical gentleman from Dublin had since been appointed to the vacant office There did not appear to be any necessity for an inquiry as suggested at the conclusion of the question.

Rabies in Dogs.

Mr. HANBURY, interrogated as to the effect of the dog regulations of the Board of Agriculture, said that in 1895 there were 672 cases of rabies and in 1898 there were 438, while after the regulations in 1900 there were six cases, and in 1901 up to May 4th there was only one case.

FRIDAY, MAY 10TH.

Scarlet Fever in the Forest Gate Schools

Dr. FARQUHARSON asked the President of the Local Government Board whether he could say how many children had suffered from scarlet fever during 1900 and 1901 at the Forest Gate Poor-law schools?—Mr. LONG replied that he understood that there was no case of scarlet fever during 1900 and 13 cases during the present year down to May 4th.

MONDAY, MAY 13TH.

The Disposal of Arsenicated Glucose.

Mr. CHANNING asked the President of the Local Government Board whether his attention had been called to the evidence given by Mr. Williamson, representative of Messrs. Bostock, that no less than 700 tons of glucose and invert sugar supposed to be contaminated with arsenic were now in the possession of the liquidators of the company, and whether, in the interest of the creditors, he could and would take steps to prevent any disposal of this contaminated material to the risk of the public health.—Mr. LONG replied: I am aware of the evidence given by Mr. Williamson on this subject before the Royal Commission. I understand, however, that he has assured the Commission that none of the material referred to will be disposed of without notice to them. I also understand that the Commission have suggested that before the material is disposed of in any way it should be so dealt with by the [illegible] as to render its employment [illegible] dators have under- [illegible] r may rest assured [illegible]

The Medical Register at Irish Petty Sessions.

Mr. MCFADDEN asked the Attorney-General for Ireland whether he was aware that the Castle authorities had discontinued the issue of the Medical Register for the use of the petty sessions courts in Ireland, and whether, considering the usefulness of the former practice to the officials, the issue would be revived.—Mr. ATKINSON replied: The gratuitous supply of this publication to courts of petty sessions in Ireland has been discontinued on the advice of the registrar of petty sessions clerks. It is not proposed to revert to the former practice.

TUESDAY, MAY 14TH.

Reserve Officers of the Royal Army Medical Corps.

Mr. MACNEILL asked the Secretary of State for War whether he could explain why, while under the provisions of the army orders army *reserve* officers [illegible] of their rank in the [illegible] but were eligible for [illegible] reserve office [illegible] within the [illegible] general list [illegible] that the pri [illegible] was likewise [illegible] Army Medic [illegible] officers shou [illegible] medical staff [illegible] Army List.

Netley Hospital Case.

Mr. J. P. FARRELL asked the Secretary of State for War whether he was aware that evidence was submitted in the course of the inquiry into the alleged ill-treatment of Private M. Lee, late of the Imperial Yeomanry, in Netley Hospital, to support the charge that the probationer in charge of the ward said that when he had done with him he would have no more fits; whether he was aware that Lee's bodily health had been seriously injured by the treatment which he had received; and whether he could [illegible] awarded to the offending official.—[illegible] *does not appear to show that the* [illegible] Private Lee used the expression [illegible] health has been seriously injured. But the treatment, with whatever good intentions applied, is not sustained as applicable to the case by high authorities, and the surgeon's experience does not justify us in continuing his services.—Mr. FARRELL: Has the right hon. gentleman consulted the eminent medical authority he referred to last week?—Mr. BRODRICK: It is the advice of the eminent specialist whom I consulted which has forced me to decide that we cannot continue the services of the surgeon.

Sewage and Drainage.

At this sitting of the House Sir WALTER FOSTER formally introduced a Bill to enable local authorities to deal separately with the sewage and drainage of their districts.

ROYAL COMMISSION ON ARSENICAL POISONING.

FRIDAY, MAY 10TH.

THE Royal Commission on Arsenical Poisoning, consisting of Lord Kelvin (Chairman), Sir William S. Church, Sir William Hart-Dyke, M.P., Professor Thorpe, Dr. B. A. Whitelegge, and Mr. Cosmo Bonsor, with Dr. G. S. Buchanan as secretary, met again to-day in the Westminster Palace Hotel, London, and proceeded with the examination of witnesses.

Mr. [illegible] said th [illegible] insteac [illegible] law no [illegible]

Sir [illegible] said th [illegible] cross-e [illegible] not de [illegible]

Mr. [illegible] a cons [illegible] with a [illegible] Part c [illegible] return- [illegible] quanti [illegible] dispos- [illegible] was o [illegible] He believed that it was the intention of the liquidators to go on selling the stock in this or some other way, and he was not aware that they proposed to take any further safeguard against mischance.

Sir WILLIAM CHURCH: We know that some of your sugars were used by children for making toffee with bad results.

WITNESS: We were not aware of that.

SIR WILLIAM CHURCH: And in the same way they might take this contaminated sugar from, say, a leather-dresser's store.

WITNESS: We did not think it necessary to suggest any safeguard nor do I know of any safeguard we could adopt. The sugar is not intended for food.

[illegible] s poisonous substance [illegible] g into food. [illegible] ied or made so dis- [illegible] to be used in food? [illegible] ve by the introduction of materials which would not affect its use for commercial purposes.

WITNESS: *If that could be done it might be done.*

Sir WILLIAM CHURCH: I do not think it is the part of the Com- [illegible] of the [illegible] d with [illegible] ions as [illegible] ir consideration.

Dr. WHITELEGGE: Has the medical officer of health of Garston been consulted?

WITNESS: He has not.

Sir WILLIAM CHURCH: I put it to you that the Commission ought to be informed what steps it is proposed to take.

WITNESS: I will see that you are informed.

Sir WILLIAM CHURCH: And the destination of each consignment?

WITNESS: Yes, I will see that that is done.

Mr. E. G. FRANCIS, manager of the Mambré Saccharine Company, [illegible] of [illegible] id, [illegible] be [illegible] the [illegible] his [illegible] contaminated if proper care were taken in its preparation. *He* was aware that there was a prejudice against the use of pyrites acid, and for that reason he had tried many brimstone acids, but he had never found one as pure as the pyrites acid used by the company. In each case the company gave a guarantee that their goods were absolutely free from arsenic, and he saw no objection to this *guarantee being tested by some Government department.*

Mr. RUDOLPH FREDERICK WAHL, managing director of the Nord Deutsche Kartoffel-Mehl Fabrik, Limited, of Custrin in Prussia, was the next witness, and in the course of his examination *he said* that his company manufactured purified starch or farina, dextrine, and glucose. Not less than 30,000 tons of farina were annually employed in *Europe for food purposes, of which his* company made 7000 tons. [illegible] and Italy. Glucose improved an inferior vintage. If the season had been deficient in sunshine the addition of glucose gave the wine the necessary alcoholic strength. In Bavaria, Wurtemberg, and Baden the use of malt substitutes was prohibited by law. The Farmers' League had a very strong hold on the Parliaments and had [illegible] however, was largely used. It was used in quantities of about three or four pounds of dissolved sulphur to the acre of hops, the object of its use being to prevent mould. In the early days it was used very *carelessly,* but not so nowadays when the greatest care was *observed.* Of course, in the case of a crop being threatened with ruin the grower would use sulphur very vigorously in order to save the crop and would do so even when it was in flower. The brewers, however, objected to the flower being coloured with sulphur. Having described the processes of drying and curing, witness said that he had known *hundreds of samples* of hops to be tested without a *trace of arsenic* being found in one of them. If arsenic were in any case found in hops then he should say that it must be due to the use of inferior fuel.

The Commission then adjourned.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ABBOTT, C. E., L.R.C.P. Irel., M.R.C.S., has been appointed District Medical Officer, Cheltenham Union, vice J. P. Bevan, deceased.

ADAMS, A., M.B., B.Ch. Oxon., L.R.C.P. Lond., M.R.C.S., has been appointed District Medical Officer, Liskeard Union, vice L. F. Houghton, resigned.

ADKINS, A. J., M.D. Lond., L.R.C.P., M.R.C.S., D.P.H. Camb., has been appointed Resident Medical Officer of the Workhouse, Stoke-upon-Trent Union, vice W. Crabtree, resigned.

ASHBY, A., M.B. Lond., F.R.C.S. Eng., has been appointed Medical Officer of Health, Caversham Urban District, vice D. Wood, deceased.

BREARS, C. F., M.D., C.M. McGill Univ., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed District Medical Officer, Sunderland Union, vice H. Liston, deceased.

BROWNFIELD, H. M., L.R.C.P. Edin., M.R.C.S., has been appointed Certifying Surgeon under the Factory Acts for the Petersfield District of Hampshire.

CLOWES, E. F., L.R.C.P. Lond., M.R.C.S., has been appointed Certifying Surgeon under the Factory Acts for the Wotton-under-Edge District of the county of Gloucester. Also Medical Officer for the Charfield and Tortworth District by the Thornbury (Glos.) Guardians and District Council

CROSSMAN, EDWARD, M.D. Durh., L.R.C.P. Lond., M.R.C.S., L.S.A., has been re-appointed Medical Officer of Health for the Barton Regis Rural District Council.

DRINKWATER, FRED ANDREW, M.R.C.S., has been appointed House Surgeon to the Wrexham Infirmary.

EDMUNDS, ARTHUR, M.R.C.S., L.R.C.P., has been appointed House Physician to the Paddington Green Children's Hospital, London, W.

GRIFFITH, A. L., M.D. St. And., M.R.C.S., has been appointed District Medical Officer, Parish of Paddington, London.

HARMAN, L., M.B. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed District Medical Officer, Kingston Union, vice F. T. Bennett, resigned.

HAYDON, ARTHUR GEORGE, M.D., M.R.C.S., has been appointed Medical Officer in charge of the Suffolk Regiment, and Civil Surgeon, Royal Army Medical Corps.

JACKSON, A. L., M.D. Camb., has been appointed District Medical Officer, Spalding Union.

JONES, EVAN, L.R.C.P. Lond., M.R.C.S., has been appointed Assistant House Surgeon to the Cardiff Infirmary.

LEMPRIERE, L. R., M.B., Ch.B. Vict., has been appointed Junior Resident Assistant Medical Officer, Township of Manchester, vice J. E. Judson.

LLOYD, R. E., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer at the Infirmary, Parish of St. Pancras, London.

LOCKYER, CUTHBERT, M.D., B.S., M.R.C.P. Lond., F.R.C.S. Eng., has been appointed Obstetric Registrar to the Charing Cross Hospital, London.

MACPHERSON, L. W. CROMBIE, M.B., C.M., has been appointed House Surgeon to the Paddington Green Children's Hospital, London, W.

MALE, M. T., M.B. Lond., has been appointed Assistant Medical Officer at the Infirmary, Parish of St. Pancras, London

PALMER, G. E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer at the Gordon-road Workhouse, Parish of St. Giles, Camberwell, vice J. P. Race, resigned.

POLLARD, F. W., B.A., L.M.S. & M. Dub., has been appointed Medical Officer and Public Vaccinator, No. 2 District, Blackburn Union. Corrected notice

REYNOLDS, B. G., L.R.C.P. Lond., M.R.C.S., has been appointed District Medical Officer, Parish of Hammersmith.

ROBERTS, KILHAM, L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer of Health for the Ampthill Rural District Council.

SANDOE, J. W., M.D. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed District Medical Officer, St. Thomas's Union, Devon, vice J. Somer, resigned.

SCOTT, J. G. C., M.B., C.M. Edin., has been appointed Medical Officer of Health, Castle Donington Rural District, vice C. Harwood, deceased.

STEED, JOHN, M.D., C.M. Edin., has been appointed District Medical Officer, Weobley Union, vice W. E. Barton, resigned.

TAYLOR, F. E., M.A., M.Sc., M.B., Ch.B., has been appointed Resident Medical Officer to the Chelsea Hospital for Women, Fulham-road, London, S.W.

TURNER, A. C. K., M.B., C.M. Edin., has been appointed Certifying Surgeon under the Factory Acts for the Fairford District of Gloucestershire.

TURNER, ROSA, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Attendant to the Children's Home at Elm Grove, Peckham, Metropolitan Asylum District.

WEST, SAMUEL, M.D. Oxon., F.R.C.P. Lond., has been appointed Joint Lecturer on Medicine at St. Bartholomew's Hospital, London, vice Sir Dyce Duckworth, resigned.

WILCOX, H., M.B. Aberd., M.R.C.S., has been appointed Certifying Surgeon under the Factory Acts for the Fleet District of Hampshire.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ASYLUM FOR IMBECILES, Caterham, Surrey.—Senior Assistant Medical Officer, unmarried. Salary £250 per annum, rising to £300, with rations, lodging, attendance, and washing.

BARNWOOD HOUSE HOSPITAL FOR THE INSANE, Gloucester.—Junior Assistant Medical Officer. Salary £160 per annum (rising to £170), with board,

BETHLEM HOSPITAL.—Two Resident House Physicians for six months. Honorarium at the rate of £12 12s. each per quarter, with apartments, board, and washing.

BIRKENHEAD UNION.—Assistant Medical Officer. Salary £120 per annum, with board, washing, and apartments.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES, John Bright-street, Birmingham.—Clinical Assistant.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon, unmarried. Salary £150 per annum, with an allowance of £30 per annum for cab hire, and furnished rooms, fire, lights, and attendance. Also Resident Locums for two to three months. Terms 4 guineas per week, with furnished apartments.

BIRMINGHAM PROVIDENT DISPENSARY, Hockley Branch (Sands Cox Trust).—Medical Officer. Salary according to the number of members, with a guaranteed minimum of £250 per annum and residence (unfurnished).

BOROUGH OF HAMPSTEAD.—Medical Officer of Health. Salary £600 per annum.

BOROUGH OF SOUTHEND-ON-SEA.—Medical Officer of Health. Salary £400 per annum, rising to £500 per annum.

BRADFORD POOR-LAW UNION.—Junior Resident Assistant Medical Officer. Salary £100, with rations, apartments, and washing.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon, single. Salary £100 per annum, with board and residence.

CHELTENHAM GENERAL HOSPITAL.—Junior House Surgeon, unmarried. Salary £60 per annum, with board, lodging, and washing.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.—Resident House Surgeon. Salary £110 per year, with board, apartments, and laundress.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester.—Resident House Surgeon, unmarried. Salary £130 per annum, with furnished rooms and attendance.

CITY OF LEEDS.—Assistant Medical Officer of Health and Inspector of Nuisances. Salary £300 per annum.

COUNTY BOROUGH OF HUDDERSFIELD.—Medical Officer of Health. Salary £400 per annum, with actual disbursements.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—Assistant House Surgeon. Salary £50 per annum, with furnished apartments, board, and washing.

DORSET COUNTY HOSPITAL, Dorchester.—House Surgeon, unmarried. Salary £100, with food and residence.

DUNDEE ROYAL INFIRMARY.—Resident Medical Assistant for six months. Salary at the rate of £40 per annum, with board and washing.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—House Physician for six months. Honorarium £25, with board, residence, &c.

GLAMORGAN COUNTY ASYLUM, Bridgend.—Assistant Medical Officer. Salary £175, with board, lodging, and washing.

GOLD COAST.—Government Medical Officers, unmarried. Salary £400 a year, free passages, and allowances.

GROVE HALL ASYLUM, Bow, London, E.—Junior Assistant Medical Officer. Salary £120 a year, with board, apartments, attendance, and washing.

HOSPITAL FOR SICK CHILDREN, Newcastle-on-Tyne.—Resident Medical Officer. Salary £60, with board, lodging, and laundry.

HULL ROYAL INFIRMARY.—Junior Assistant House Surgeon. Salary £60, with board and lodging.

INFECTIOUS DISEASES HOSPITALS, City of Leeds.—Assistant Resident Medical Officer. Salary £130 a year, increasing to £150, with board, lodging, and washing.

JARROW MEMORIAL HOSPITAL.—House Surgeon, unmarried.

KENSINGTON DISPENSARY AND CHILDREN'S HOSPITAL.—Resident Medical Officer, unmarried. Salary £100 per annum, with apartments, board, coals, gas, and attendance.

KENT COUNTY OPHTHALMIC HOSPITAL, Maidstone.—House Surgeon. Salary £100, with board and lodging.

KINGSTON UNION INFIRMARIES.—Resident Assistant Medical Officer. Salary £150, rising to £200, with house partly furnished, coals, gas, laundry, and scale allowances for rations.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Resident Medical Officer. Salary £1 per annum, with board, apartments, and washing.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer, unmarried. Salary £150 per annum, with board and residence.

NORTHAMPTON GENERAL INFIRMARY.—Honorary Ophthalmic Surgeon. Also Honorary Assistant Surgeon.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Resident Medical Officer. Also Assistant Resident Medical Officer, both for six months. Salary at the rate of £50 per annum, with board, residence, and washing.

NOTTINGHAM GENERAL DISPENSARY.—Senior Resident Surgeon. Salary £200 per annum, increasing by £15 every year. Also two Assistant Resident Surgeons. Salaries £160 per annum each, increasing by £10 every year, furnished apartments, attendance, light, and fuel. Unmarried.

QUEEN'S CENTRAL HOSPITAL, Cradock, Cape Colony.—House Surgeon and Secretary, unmarried. Salary £150 per annum, with board, lodging, and washing.

ROYAL CORNWALL INFIRMARY.—House Surgeon, unmarried. Salary £100, increasing by £10 a year, with board and apartments

ROYAL FREE HOSPITAL, Gray's Inn-road, W.C.—Senior Resident Medical Officer. Salary £100 per annum, with board, residence, and washing.

ROYAL HALIFAX INFIRMARY.—Third House Surgeon, unmarried. Salary £80 per annum, with residence, board, and washing.

Royal Orthopædic Hospital, 297, Oxford-street.—Resident House Surgeon and Registrar, unmarried. Salary £100 per annum, with full board.

Royal Sea Bathing Hospital, Margate.—Assistant Resident Surgeon. Salary £60 per annum, with board and residence.

Royal Surrey County Hospital, Guildford.—Assistant House Surgeon. Salary £50, with board, residence, and laundry.

Sheffield Royal Hospital.—Junior Assistant House Surgeon, unmarried. Salary £50 per annum, with board (exclusive of wine and beer) and lodgings.

Southport Infirmary.—Resident Junior House and Visiting Surgeon, unmarried, for six months. Honorarium at the rate of £60 per annum, with residence, board, and washing.

St. Marylebone Infirmary, Notting hill, W.—Second Assistant Medical Officer. Salary at the rate of £80 per annum, with board, &c.

St. Mary's Hospital for Sick Children, Plaistow, E.—Resident Medical Officer. Salary £100 per annum, with board, residence, laundry, &c. Also Assistant Resident Medical Officer. Salary £80 per annum, with board, residence, laundry, &c.

Stockport Infirmary.—Assistant and Visiting House Surgeon. Salary £70, with residence, board, and washing. Also Junior Assistant House Surgeon for six months. Salary at rate of £24 per annum, with board, washing, and residence.

Sussex County Hospital.—Ophthalmic Surgeon.

The Chief Inspector of Factories gives notice of a Vacancy as Certifying Surgeon under the Factory Acts at Harleston, in the county of Norfolk.

Towcester Union.—District Medical Officer and Public Vaccinator. Salary £60 per annum, with allowances.

West Bromwich Union.—Assistant Workhouse Medical Officer. Salary £100 per annum, and £75 in lieu of apartments, board, &c.

West Ham Hospital, Stratford, E.—Junior House Surgeon. Salary £75 per annum, with board, residence, &c.

Western General Dispensary, Marylebone-road.—Second House Surgeon, unmarried. Salary £75 a year, with board and residence, and 10s a month for laundry.

Weston super-Mare Hospital and Dispensary.—Medical Officer. Salary £100 per annum, with board, lodging, and washing.

Windsor and Eton Royal Dispensary and Infirmary.—House Surgeon, unmarried. Salary £110 per annum, with residence, board, and attendance.

Births, Marriages, and Deaths.

BIRTHS.

Brown.—On the 13th of May, at 6, Gibson-square, N., the wife of George Brown, M.R.C.S. Eng., of a daughter.

Fitzgerald.—On May 11th, at Southwood lane, Highgate, N., the wife of Gerald Fitzgerald, M.B., of a daughter.

Hentsch.—On May 12th, at Acre-lane, S.W., the wife of G. F. Hentsch, L.R.C.P. Lond., M.R.C.S., of a daughter.

Lansdale.—On May 9th, at Trinity square, S.E., the wife of Wm. Lansdale, M.D., M.R.C.S., L.R.C.P. Lond., D.P.H., of a son.

MacLeod.—On May 9th, at Ladbroke-grove, W., the wife of C. R. Alex MacLeod, F.R.C.S., of a son.

Plummer.—On May 11th, at Old Elvet, Durham, the wife of Selby Plummer, M.D., of a daughter.

Taylor.—On May 9th, at Eland House, Rósslyn Hill, Hampstead, Huldah, the wife of E. Claude Taylor, M.D., M.S., of a son.

Wace.—On May 11th, at Southgate-street, Winchester, the wife of Cyril Wace, F.R.C.S., of a daughter.

MARRIAGE.

Preston—Bowkett.—On May 8th, at Emmanuel Church, West Hampstead, Francis Harrison Preston, M.A. Camb., M.R.C.S., son of the late Rev. A. M. Preston, of Winslow, Bucks, to Hilda Emily, daughter of the late Dr. Bowkett of Poplar.

DEATHS.

Bayes.—Frederick William Bayes, M.R.C.S., of Walsingham, in his 76th year.

Braddon.—On May 10th, at the Imperial Hotel, Blackpool, Charles Hitchman Braddon, M.D., J.P., of Ryecroft House, Cheetham Hill, Manchester, and eldest son of the late Charles Braddon, surgeon, of Upton-on-Severn, Worcestershire, in his 64th year.

Davidson.—On Thursday, May 2nd, at The Dingle, Sydenham Hill, London, S.E., Lieutenant-Colonel D. C. Davidson, Indian Medical Service, Bombay Presidency, aged 60, youngest son of the late Rev. George Moir Davidson, of Watten, Caithness-shire, N.B., and son in law of the late General John Clarke, 25th Bengal N.I., and Commissioner, Sitapur, Oudh.

Holt.—On the 10th inst., at Hartshill, Stoke-on-Trent, Mary Ethel, wife of Arthur Knight Holt, M.D., of Bournemouth, and eldest daughter of Joseph Knight, of Newcastle-under-Lyme, aged 38.

Leigh-Sodipe.—At Lagos, West Africa, on the 15th April, 1901, Sodeinde Alfred Leigh-Sodipe, M.D., Assistant Colonial Surgeon, Colony of Lagos.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

THE SCOPE OF THE MIDWIFE'S DUTIES: AN INQUEST.

On May 9th Mr. A. Braxton Hicks held an inquest at Lambeth on the body of George Ernest Eyre, the five-days old son of a printer's labourer, living at 24, Caffin-street, Lambeth.—Elizabeth Lloyd, of 16, Caffin-street, said that she attended the mother of the deceased in her confinement, a midwife being also present. The baby was not a strong child when born.—Marian Langley, a midwife attached to Guy's Hospital Maternity Charity, residing at 10, St. Thomas's-street, S.E. (the Institution), deposed that she attended Mrs. Eyre in her confinement. The child was expected about that time. Witness was sent for on Sunday, May 5th, and went back again. The baby was born before she got there the second time. Mrs. Lloyd said it was a natural presentation. Witness attended to the mother and child. The latter was a little discoloured but quite normal. On the Monday afternoon, about 2 o'clock, witness again visited and she paid a further visit on Tuesday or Wednesday, when the child was apparently all right; she saw nothing the matter with it. It was not a large child. One of her assistants then took over the case—one of her pupils. She was there first and sent for witness.—The Coroner (surprised): You have pupils, do you? Where is it going to stop Pupils will be having pupils too, I suppose. I am not surprised at what the medical journals say about this midwife business. Although you are a certificated midwife, when a call is made you send a pupil, who finds something wrong and then you go. Do not you think you should have called the obstetric physician—a qualified practitioner?—Witness: I often have cases like this.—The Coroner: And I have often to hold inquests because a medical man, who could give a certificate, is not called and midwives take too much upon their own shoulders.—Witness went on to say that the nurse told her of the death at nine o'clock on Friday morning and she asked Dr. Sime, the physician, to see the child.—The Coroner: You did not see it?—Witness: No, sir.—The Coroner: You could not tell what was the cause of death, then why did you give this certificate:—

"Guy's Hospital.

"Guy's Institution, 10, St. Thomas's-street.

"This is to certify Mrs. Eyre of 24, Caffin-street, was delivered of a male child, April 29th, that it died May 2nd from inanition with convulsions. "Marian Langley, midwife."

Witness: I had seen the child.—The Coroner: The doctor could not give a certificate because he only saw the child after death. First of all this certificate is incorrect as to the date of death. It is on paper headed "Guy's Hospital," which gives it an official aspect. Why did you put "convulsions" when you never saw the child in one?—Witness: Dr. Sime saw the child and was of that opinion.—The Coroner: If Dr. Sime could not give a certificate, why should you? Have you ever had a case like this before?—Witness: No.—The Coroner: Then I trust you won't give another certificate. I never accept them because you are not qualified to give a certificate of any sort. If you believe what other people tell you you would have to believe anything Did Dr. Sime authorise you to give this certificate?—Witness: Yes.—The Coroner: Do you know of the new Bill for the Registration of Midwives?—Witness: I have heard of it.—The Coroner: That is one of the things it prohibits—the giving of a certificate of any description. In future always refer a case to my officer at once, because the registrar sends it to me. In this instance the alleged cause of death is not put down at all, because the registrar found it was a midwife's certificate. You have made a very fair guess, but it is not correct in one way.—Dr. Francis Wheeler Sime deposed to having made a post-mortem examination of the body by the coroner's order. There was an absence of any definite cause of death, but from his inspection of the body after death and the post-mortem examination he came to the conclusion that death was due to infantile convulsions.—The Coroner: Your midwife tells us that you said she might give a certificate?—Witness: Yes; of course, you see, we are not used to Lambeth. We have about 400 births a month and it is impossible for me to see them all.—The Coroner: If a child gets a convulsion and dies do you not refer it to the coroner?—Witness: If the registrar is not satisfied, we do, or, rather, we send the paper to the registrar, and if he is not satisfied he sends to the coroner.—The Coroner: The registrar knows less about it than anyone else and he might accept it and it would be an uncertified death. I do not think medical men should put so much power into the hands of registrars, some of whom do not know their work. I have no control over Southwark, but I used to have as deputy coroner. Anyhow, as far as Lambeth is concerned when you have a case in my district will you at once inform my officer who will make inquiries? Probably your opinion will be quite as valuable as if I had a post mortem made. This certificate I consider most irregular. The matter is of importance to the public at large, whom I represent to some extent.—The jury fully endorsed the coroner's observations.—The Coroner (to Miss Langley): I hope you will tell all your probationers not to take too much upon themselves.

MEDICAL MEN AND THE INCOME-TAX.

To the Editors of THE LANCET.

SIRS,—The very pertinent remarks in THE LANCET of May 4th, p. 1286, about medical men and the income-tax induces me to call the attention of others to what seems a great injustice. For instance, in returning the income from all sources in Schedule D, one naturally includes appointments. Well, the surveyor of taxes expects a return in Schedule E for the latter. I will explain. In the union with which I have been long connected—for the last 10 years—all the medical men are taxed separately on their salary, vaccinations, &c., which has become quite a burden. I have asked some of my neighbours to join me in agitating about this matter, but they seem diffident. Kindly advise what is the best thing to do.

I am, Sirs, yours faithfully,

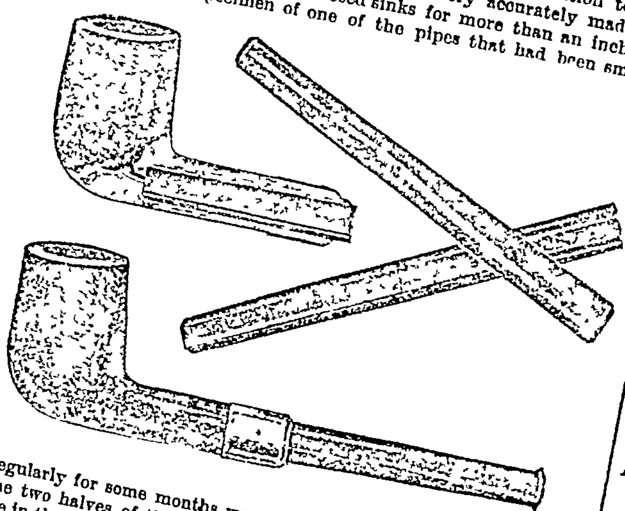
R. I.

May 13th, 1901.

*** We are not quite sure what our correspondent intends to convey to us, but if he means that he pays income-tax under both Schedule D and Schedule E on the same income he is obviously paying incorrectly. He should see the surveyor for his district, who will put matters straight for him.—ED L.

A NEW PIPE.

WE have had submitted to us specimens of a new pipe which, we consider, merits a few words of commendation. The novel feature is the vulcanite mouthpiece. This is split longitudinally so that the bore is represented in each half of the mouthpiece by a shallow trough. The two halves revolve on each other round a pin situated near the lip end, and are kept in close approximation to each other by the fact that the parts are very accurately made and that the whole tube when closed sinks for more than an inch into the bowl. A specimen of one of the pipes that had been smoked regularly for some months was submitted to us for inspection and the two halves of the mouthpiece were as perfectly joined as they are in the new pipes. The value of the innovation is obvious. When the pipe wants cleaning it is not necessary to use the accustomed form of pipe-cleaner. The mouthpiece can be opened and wiped and the pipe can be always kept dry. Smokers have brought to their notice a good many new ideas in pipes and are generally sceptical concerning the benefit to be derived from them, but the mouthpiece which we have described will, we think, repay their attention. The pipes are well-made and neat-looking. They can be purchased at the "M.P." Pipe, Limited, 79, Gracechurch-street, London, E.C., price 2*s.* 6*d.*



THE CASE OF MR. LOUIS FERDINAND DODS: AN APPEAL.

To the Editors of THE LANCET.

SIRS,—I have this morning received from Mr. W. J. Walsham a further list of contributions as under.

I am, Sirs, yours faithfully,

JOSEPH E. S. KING.

May 3rd, 1901.

	£	s.	d.		£	s.	d.
Dr. Charles Coates ...	2	2	0	Mr. Nettleship	2	2	0
Dr. A. P. Luff	1	1	0	Mr. Cursham Corner ...	0	10	6
Mr. Andrew Fuller	1	1	0	Mr. R. L. Legate	1	0	0
Dr. Samuel West	3	3	0	Dr. Cullingworth	3	3	0
Mr. Walshe	1	1	0	Dr. Dundas Grant	1	1	0

THE MAY-OATWAY AUTOMATIC FIRE DETECTOR AND POSITION INDICATOR.

ON Thursday, May 9th, at 23, Old Broad-street, London, E.C., there was a press view of a heat and cold detector which should prove valuable for both private and public use, if in actual practice it answers to the delicate tests which it responded to when shown to us. The principle on which the invention is constructed is that of the expansion or contraction of metals by change of temperature. A protected wire is suspended along one side of a room and from the wire falls a small plug which drops between two terminals and closes a circuit with an electric bell when the wire expands. By various simple mechanical and electrical appliances the information gained by the automatic detectors is systematically codified and announced either to the householder or the fire-station, or to both. As the course taken by the fire is indicated useless deluging of rooms from which only smoke is issuing is prevented. The apparatus can be adapted equally well to the recording of low temperatures and its use in cold stores and freezing chambers is thus indicated. When it is possible to summon trained aid this instrument is connected with the ordinary street alarm wires, in which case the signal reaches the brigade over its own wires by automatic telegraphy at the same time that the alarm is given at the seat of the fire. No human initiative is required, the premises may be quite unoccupied at the time, but within a few seconds the firemen will be apprised of the outbreak, and on their arrival will be shown its position and extent. According to a printed statement which we have received, "the May-Oatway system originated in New Zealand and is the joint invention of Mr. Chas. E. May, senior mechanical electrician to the Government of that colony, and Mr. G. H. Oatway. There the system is in general use, delivering its signals over the ordinary municipal streets alarm wires direct to the offices of the different brigades. Every fire insurance office (English, foreign, and Australasian) and every fire brigade testified in writing to its value; the Government of the colony have ordered its installation for the protection of the hundreds of inmates of the Industrial School; and the State Railways Department have opened negotiations for the right to manufacture and to use the invention under royalty to the Inventors' Syndicate. In England the system has secured the coöperation of Sir Eyre M. Shaw and Sir W. H. Preece, the two representatives of Great Britain at the International Fire Brigades Congress held in connexion with the Paris Exhibition last year."

BENZ MOTOR-CARS.

To the Editors of THE LANCET.

SIRS,—Can any of your readers who have used the above cars in their practices say if they are to be relied on for a practice in a hilly country where gradients are steep, surface of main roads good, but of by-roads bad? Also cost of working and if, with ordinary care, they require frequent repairs.

I am, Sirs, yours faithfully,

CORNWALL.

May 14th, 1901.

"SEBORRHŒA."

To the Editors of THE LANCET.

SIRS,—Will "S.," whose communication appeared in THE LANCET of May 11th, p. 1378, try "Fowler's solution" internally? I have known scurf vanish like mist before a hot sun through it. Should he be inclined to try it, may I ask from him through your columns a note on the result? I was myself a martyr to the condition and Fowler's solution had good effect.

I am, Sirs, yours faithfully,

H.

May 13th, 1901.

◆

Miles Medicus.—The communication is too long for our columns. The story is told with obvious animus against the employer and would not if it were published create any prejudice in favour of the writer. At the same time the employer is acting unfairly in not replying to questions asked by other practitioners concerning his late assistant.

An Author who has been a Reviewer once, J. W., and *A. E.* are thanked for their communications, but if we opened our columns to lists of recommended fiction we should have difficulty in stemming the tide of suggestions which would reach us.

An Actor details a story which we can hardly credit. If he will send us copies of his letters to medical men and of their replies refusing to attend him we will do our best to assist him. He has not told us enough to make it safe to advise him.

Mr. F. Hallas.—A bottle containing a few drops of fluid—quite an insufficient quantity for analytical purposes—has been received.

P. J. T.—We do not give medical advice.

Jelloid.—Yes.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received:—*Blairgowrie Advertiser, Stratford Express, Carlisle Journal, Birmingham Post, Newcastle Journal, Southport Visitor, Bolton Chronicle, Shields Gazette, Surrey Times, Cheshire County News, Sheffield Daily Telegraph, Glasgow Herald, Chesterfield Times, Dundee Advertiser, Liverpool Daily Post, Halifax Courier, Crewe Chronicle, Bradford Observer, East Anglian Times, Hexham Herald, Manchester Guardian, Darlington Star, Scotsman, Citizen, Architect, Times of India, Pioneer Mail, Builder, St. Austell Star, Leeds Mercury, Edinburgh Evening News, Yorkshire Post, Reading Mercury, Bristol Mercury, Town and Country Journal (Sydney), Sydney Daily Telegraph, Middlesborough Morning Mail, Optician, City Press, Daily Colonist, Mining Journal, Surrey Advertiser, Lancashire Daily Post, Hertfordshire Mercury, Lancaster Observer, Le Courrier de la Presse (Paris), Blackpool Herald, Local Government Journal, Selkirk Reporter, The Age (Melbourne), St. Mary Cray Times, North Herts Journal, Kettering Guardian, Nuneaton Observer, Hunts County News, &c., &c.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 16th, 1901.

Date	Barometer reduced to Sea Level and 32° F	Direction of Wind	Rain-fall.	Solar Radia in Vacuo	Maximum Temp. Shade	Min. Temp	Wet Bulb	Dry Bulb	Remarks at 8 30 A.M.
May 10	29·99	N.E.	0·32	96	56	46	47	49	Overcast
„ 11	30·15	S	...	88	59	48	49	53	Cloudy
„ 12	30·34	S E.	...	100	65	46	50	57	Cloudy
„ 13	30·36	N.E.	...	107	67	47	48	51	Cloudy
„ 14	30·36	N.E.	...	113	73	44	49	53	Fine
„ 16	30·33	N.E.	...	113	72	45	50	56	Fine
„ 16	30·18	N.E	...	109	57	47	48	50	Cloudy

Medical Diary for the ensuing Week.

OPERATIONS.

[illegible]

2.30 P.M).

WEDNESDAY (22nd) —St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic [illegible]

London Throat (2 P.M.), Cancer (2 P.M.).

THURSDAY (23rd) —St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M), Charing-cross (3 P.M.). St. [illegible]

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (20th).—ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (20, Hanover square, W.).—7 P.M. Council. 8 P.M. Papers:—Mr. D. Caush: The Development of Pulp Nodules (with lantern illustrations).—Mr G. Brunton: A Method of Avoiding Pain in Dental Operations (incorporating an article by Mr. W. St. George Elliott). Casual Communication:—Mr. W. B. Barrett: A Case of Underhung Bite.

MEDICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish square, W.).—8 30 P.M. Annual Conversazione Reception by the President. 8 45 P.M. Oration:—Mr. F. R. Cross: Some Landmarks in the Progress of Medical Science.

TUESDAY (21st).—PATHOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.) —8.30 P.M. Annual General Meeting Election of Officers and Council. Communications [illegible] of the Pericardium. Card Specimens will be shown by Mr. T. Bryant, Dr. Fawcett, and Dr. Thursfield.

WEDNESDAY (22nd).—SOCIETY OF ARTS —8 P.M. Mr R. Brudenell Carter: Testing and Training Distant Vision, with special reference to Military Requirements.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND (20, Hanover-square, W.) —4 30 P.M. Informal Exhibition of Cases. 5 P.M. Annual General Meeting.

THURSDAY (23rd).—MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND (11, Chandos-street, Cavendish square, W.) —11 A.M. Educational Committee. 12 noon. Parliamentary Committee. 1.15 P.M. Council Meeting. 2 P.M. Dr. Tredgold and Dr. Watson: Exhibition of Microscopic Slides. 3 P.M. General Meeting. Papers:—Dr. C. Mercier: Punishment.—Dr. R. P. Smith: A Case of Epileptic Homicide.—Dr. D. G. Thomson: Senile Insanity, in what Institutions should it be treated? 6.30 P.M. Dinner at the Café Royale, Regent-street.

FRIDAY (24th).—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 30 P.M. Annual General Meeting Election of officers for the session 1901-1902 Papers:—Dr. Risien Russell and Mr. Raymond Johnson: Traumatic Subdural Hæmorrhage on the Sixth Day after the Injury and Successfully Treated by Operation.—Dr. Isambard Owen and Dr. W. J. Fenton: Extreme Dilatation of the Left Auricle, the Auricle Presenting in the Right Axilla —Mr. Rickman Godlee Acute Suppuration of the Thyroid Gland complicating Typhoid Fever.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c

MONDAY (20th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies street, W.C.) —4 P.M. Mr. M Morris: Consultation. (Skin.)

WEST LONDON POST GRADUATE COURSE (West London Hospital, W.).—5 P.M. Mr. Bidwell The Application of Plaster-of Paris Splints

TUESDAY (21st).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.) —4 P.M. Dr. R. L. Bowles: Consultation. (Medical)

WEDNESDAY (22nd).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W C).—4 P.M. Mr. R. Harrison: Consultation. (Surgical.)

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST [illegible] Bruce: On the Diagnosis, [illegible]ent Tuberculosis (opening [illegible] COLLEGE AND POLYCLINIC [illegible] Hutchinson: Consultation. (Surgical.)

CHARING-CROSS HOSPITAL.—4 P M. Dr. Abercrombie: Medical Cases. (Post Graduate Course.)

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. Ball Methods of Examination of the Throat, Nose, and Ear.

FRIDAY (24th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W C.).—4 P.M. Dr. D. Grant: Consultation. (Ear.)

ASSOCIATION OF ASYLUM WORKERS (Medical Society's House, 11, Chandos-street, Cavendish-square, W.).—4 P.M. Annual Meeting.

EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used

MANAGER'S NOTICES.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Communications, Letters, &c., have been received from—

A.—Association for Pure Vaccine Lymph, Lond.; A., Tilehill; Mons. J. Astier, Asnières; Messrs. Allen and Hanburys Lond.; A. A. F. P., Zurich; Dr. W. A. Aikin, Lond.; An Actor, Ashford.

B.—Dr. H. A. Benham, Fishponds; Mr. T. Bryant, Lond; Messrs Bates, Hendy, and Co, Reading; Dr. J. M. Barbour, Swanage; Dr. J. Rose Bradford, Lond.; Mr. R. Bucknall, Lond.; Messrs E. Baines and Sons, Leeds; Birmingham, &c, Hospital for Skin Diseases, Hon Secretary of; Messrs J. and H. Bell, Nottingham, Mr. J. Pullock, Lond.; Messrs. H O. Braun and Co, Lond.; Mr. J. J. Baxter, Lond.; Mr. J Paul Bush, Bristol, Dr. J. E Bowser, Penrith; Dr. J. Brownlee, Glasgow, Dr. J. B. Ball, Lond.; Dr. A G. Bateman, Lond., Dr. A B Blacker, Lond.; Messrs. Boulton and Paul, Norwich.

C.—Mr. F. A Cumming, Lond.; Messrs. Cassell and Co, Lond., Messrs. T. Christy and Co, Lond.; Messrs. J. and A. Churchill, Lond. Messrs. S. Chivers and Sons Histon, Crooksbury Sanatorium, Farnham, Medical Superintendent of; Central News, Lond, Manager of.

D.—Mr. A. Duke, Cheltenham; Mr. T. T. Dixon, Lond., Dundee Royal Infirmary, Secretary of; Mr. C. F. Dowsett, Winklebury; Dr. L. Dobson, Lond., Dorset County Hospital, Dorchester, Clerk of.

E.—Earl of Eldon, Lond.; Mr. S. J. D. Esser, Lond.; Eye and Ear Hospital, Tunbridge Wells, Secretary of, Dr. A. A. Eshner, Philadelphia.

F.—Messrs. J. Feeney and Co., Birmingham; Messrs. Fairchild, Bros, and Foster, Lond.; Dr. H. Forestier, Aix les Bains; Mr. A. Fryers, Lond.

G.—Sir W. Gowers, Lond.; Messrs. Grandinet and Genlis, Lond.; Mr. J. Good, Stockport, Messrs. H. Garland and Co., West Kirby; Mr. E Gooch, Lond., Messrs. Gordon and Gotch, Lond.; Messrs Grindlay and Co., Lond.; Glamorgan County Asylum, Clerk of.

H.—Mr. H. E Haynes, Bedford, Dr. A. K. Holt, Stoke-on-Trent, Mr. F. Hallas, Sheffield; Mr G. Hermanni, Lond. Hospital for Sick Children Newcastle-on-Tyne; Heigham Hall, Norwich, Licensee of Messrs. R Heaton and Son, Burslem. Mr. J. J. Harding Ballincollig; Mr. W. Harrison-Martindale, Lond.; Dr. Horne Hay, Alloa; Dr. G. E. Herman, Lond.; Holne Chase, Bexhill on-Sea, Lady Superintendent of.

I.—Mr R Instance, Pontymister; Imperial Accident, &c, Insurance Co, Lond.; Institute of Chemistry of Great Britain and Ireland, Lond., Secretary of.

J.—Mr. W. H Jessop, Lond.; Dr. H W. Jacob Great Malvern; Jeyes' Sanitary Compounds Co., Lond.; J. A C., Birmingham

K.—Dr. H R. Kenwood, Lond; Mr. E M. M. Knapp, Ross on-Wye Messrs. Knapp, Drewitt, and Sons, Kingston-on-Thames; Messrs. R. A. Knight and Co, Lond.

L.—Dr. S. H. Long, Norwich; London Guild of Hope Secretary of, London, Mr. H. K. Lewis, Lond.; L K M.

M.—Mr. S B Mason, Pontypool; Dr D. M. MacLeod, Edinburgh Male and Female Nurses' Association, Lond.; Dr. Martin, Bristol Manston Hospital, Seacroft, Medical Superintendent of; Maltine Manufacturing Co, Lond., Mrs A. G. Muir, Partick; Medical Society of Victoria, Melbourne, Secretary of; Mr. T. H. Middlebro', Owen Sound, Canada, Dr. G Balfour Marshall, Glasgow, Sir John Monckton, Lond., Surgeon Major Matthews, V M S.O., Lond., Manchester Royal Infirmary, Secretary of; Messrs. McKesson and Robbins, New York Manchester Hospital for Consumption, Secretary of. Messrs. Mather and Crowther, Lond.; Mr. Malcolm-Smith, Lond; Mr. W. Marriott, Lond

N.—Rev. J. B Nicholson, Powick; Mr. J. C. Needer, Lond.

O.—Dr Thomas Oliver, Newcastle-on-Tyne Mr. E. Owen, Lond.; Messrs. Oppenheimer and Son, Lond.

P.—Mr Y. J. Pentland, Edinburgh; Messrs. J. Phillips and Son, Newport. Mr. F. E. Potter, Lond.; Messrs Parkinson and Son, Lond.; Mr. W. W. Palmer, Aberystwyth; Messrs Price Bros. and Co., Wellington, Poor law Medical Officers' Association, Lond., Hon. Secretary of; Messrs Peacock and Hadley, Lond.; Mr. G. R Parker, Lancaster.

R.—Dr. J H Robinson, Lond.; Mr. R. W. Roberts, Cwm Avon; Royal Halifax Infirmary, Secretary of; Royal Cornwall Infirmary, Truro, Secretary of; Mr. C. E. Richmond, Warrington; Mr. S. H. Rentzsch, Week St. Mary; Dr. J. J. Ridge, Enfield, Messrs. Rebman, Lond.

S.—Mr. A. Sharland, Lond.; Dr. E. Schloesser, Paris, Mr. J. L. Sardy, Lond.; Dr. Starling, Lond. Dr. B C. Stevens, Leeds; Messrs. Street and Co., Lond.; Messrs. Squire and Sons, Lond.; Messrs Spiers and Pond, Lond; St. Marylebone Infirmary, Medical Superintendent of; Sussex County Hospital, Brighton; Dr. G. E. Shuttleworth, Richmond Hill Dr. F. W. Skinner, Rye; Scholastic, Clerical, &c., Association, Lond.; Messrs R G. Shaw, and Co, Lond.; Dr. S. Sunderland, Lond.; Mr. J. H. Swanton, Lond.

T.—Dr. W. E. F. Tinley, Whitby; Mr. Pugin Thornton, Canterbury.

V.—Mr. Sidney Vines, Lond.

W.—Miss Woodward, Folkestone; Mr. J. Woodhead Huddersfield, Dr. T. Wise, Hanwell; Messrs. W. Wood and Co, New York; West London Nursing Association, Secretary of; Messrs. J. Wright and Co., Bristol; Messrs Wright, Dain, and Co. Birmingham; Weston-super-Mare Hospital, Secretary of; Mr. A P. Walters, Chiddingfold; Western General Dispensary, Lond, Secretary of; Wrexham Infirmary, Secretary of; West Bromwich Union, Clerk of; W. L. B D; Mr. C Worth, Lond Messrs. Willings, Lond.; Mr. Wand, Leicester; Mr. C Williams, Birmingham; Mr F. M. Williams Plymouth.

Y.—Mr. E. B. Young, Lond.

Letters, each with enclosure, are also acknowledged from—

A.—A. P. H.; A. W. H. L; A. R G.; A J. M.

B.—Dr. F. E Bissell, Irchester; *Birmingham Daily Gazette*; Mr. J. C. Braine-Hartnell, Stroud; C. Birchall, Ltd., Liverpool; Mr. R. S. Betts, Bournemouth, Borough Hospital, Birkenhead, Treasurer of; Messrs. J. H. Booty and Son, Lond Mr. G. A. Brown, Tredegar; Mr. E. J. Blackett, Lond

C.—Mr. J. M. Carvell, Catford; Messrs T. Cook and Son, Lond.; Messrs. E. Cook and Co, Lond.; Mr. G. H. Chapman, Burgess Hill, Mr. H. W. Carson, Lond.; Miss A R Cooper, Paignton, Children's Hospital, Manchester, Secretary of, Corporation of Glasgow, Treasurer of; Mr. J. B. Cameron, Lond.

D.—Mrs. Davidson Lond; Messrs. A. De St. Dalmas and Co., Leicester Dalrymple Home, Rickmansworth, Doctor, Lond.; Mr. W. Dowling, Haverfordwest; Discount Motor Car Co., Lond.; Messrs. H. Dawson and Co., Lond.; Dundee Royal Infirmary, Treasurer of, Doncaster General Infirmary, Hon. Secretary of.

E.—Mr. F. G. Ernst, Lond., Dr. H. D. Everington, Sanderstead; Miss A. Etheridge, Stoke Ferry; Mr. T. F. Elmes, Sundays Well; E P. C.

F.—F. A. C.; F. W.

G.—Dr. H. C. Garth, Calcutta; Dr. C. H. Greenwood, Cookridge; Messrs. Gilyard Bros, Bradford; Mr. T. Gray Pontypridd, G. B.; Dr. S A. Gill, Formby; Gloucester County Asylum, Clerk of; Messrs. Guyot, Guenin, and Son, Lond.

H.—Dr. M. Helm, Bonn; Messrs. J. Haddon and Co., Lond.; Dr. J. Hay, Liverpool; H.; Hendon Grove Asylum, Medical Superintendent of, Humphreys, Ltd, Lond., Mr. G. F. Henry, Lond., Dr. A. K. Holt, Stoke-on-Trent.

J.—Mr. R. Jones, Dolgelly; J. B.; J. T. B., J. R. W.

K.—Kaiser Friedrich Quelle Act Gesellschaft Offenbach, G many; Mr. R A. Keys, Bagill

L.—Dr. J. S. Lyttle, Cliftonv Mrs. Leech, Lond; L. W., Leeds Mr. L. F. Leslie, Evesham; L. C., L. W.

M.—Mr J. Murray, Lond.; Monkwearmouth, &c, Hospital Sunderland, Mrs. Muir, Glasgow; Mr A. R. Macgregor, Hastings; M.S M.D.

N.—Mr. H. Needes, Lond.

O.—Oldham Infirmary, Secretary of; Mr. M. J. O'Doherty, Bolton.

P.—Dr. S. M. Plummer, Durham; Dr. A. R. Paterson, Seato Carew, Dr. D. W. Patterso Newcastle-on Tyne; Dr. Pollard, Lond.; Miss Poulsen Westcott.

R.—Messrs. Richardson Bros. and Co., Liverpool, Royal Surrey County Hospital, Guildford, Secretary of; Messrs. Raimes and Co., York; R. J., Rotherham Hospital, Secretary of.

S.—Mr. J. S. Sharman, Lond.; Mr. E. S. Sanderson, Tuxford; Scientific Press, Lond. Southport Infirmary, Secretary of; Dr. F. W Saunders, Donnington Sheffield Royal Hospital, Secretary of; Mrs. Salmond, Glasgow, Mr B. Stainer, Market Drayton; Dr. A. Sprott, Glenridding; Smedley's Hydro Co., Matlock; Surgeon, Lond., Dr. H. G Stacy, Leeds.

T.—Mr. G. E. Thoms, Liscard; Dr. E C. Taylor, Lond. Messrs. J. Turner and Co. Queensferry; Miss Thompson, Edgbaston; T. T. G B.

V.—Victoria Hospital, Folkestone; Vinolia Co., Lond.

W.—Dr. G. B. Wood, Sandown; Mr. J. Wild, Newbridge W. D., Liverpool; W. G. D; W R O F; Mr. J. Williams, Bradford; Mr. J. H. Wallis, Babbacombe; Messrs. H. Wilson and Son, Lond.; W. D.; W. H. P., W. T. E.; West Herts Infirmary, Hemel Hempstead, Secretary of; Messrs. R. R. Whitehead and Bros., Lond.

EVERY FRIDAY.

THE LANCET.

PRICE SEVENPENCE.

SUBSCRIPTION, POST FREE.

For the United Kingdom.			
One Year	£1	12	6
Six Months	0	16	3
Three Months	0	8	2

To the Colonies and Abroad.			
One Year	£1	14	8
Six Months	0	17	4
Three Months	0	8	8

Subscriptions (which may commence at any time) are payable in advance.

ADVERTISING.

Books and Publications ...	Seven Lines and under	£0	5
Official and General Announcements	Ditto	0	5
Trade and Miscellaneous Advertisements	Ditto	0	4
	Every additional Line	0	0

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5

Terms for Position Pages and Serial Insertions on application.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not onl affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France.—J. ASTIER, 8, Rue Traversière, Asnières, Paris.

An Address
ON
THE OPERATIVE TREATMENT OF ABSCESS WHEN SITUATED IN THE BRAIN.

Delivered at a Special Meeting of the Otological Society of the United Kingdom held in Edinburgh on May 11th, 1901,

By CHARLES A. BALLANCE, M S. Lond, F R C S Eng,

SURGEON TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, QUEEN-SQUARE, AND TO THE HOSPITAL FOR SICK CHILDREN GREAT ORMOND-STREET, SENIOR ASSISTANT SURGEON TO ST THOMAS S HOSPITAL.

Mr President and Gentlemen,—None of us can have forgotten the beautiful story of "Rab and His Friends"[1] wherein is painted by a master hand an operation by your great surgeon, Syme, in the pre-chloroform and pre antiseptic days The heartrending description of the operation would be true to this day but for the genius of Simpson, as chloroform—"one of God's best gifts to His suffering children"—might still be unknown. And the "Reaper whose name is Death"[2] would still be reaping the "bearded grain" by means of the bacillary "sickle keen"—the dread and fatal septic illness that cut off the life of Ailie—had not Lister, the peerless knight of surgery, after long years of toil, vanquished the terror of the surgeon Truly—

"[illegible]
[illegible]
[illegible]"

Indeed, we may detach some words from a sublime passage in which Macaulay immortalises the genius of an illustrious statesman and say of Lister "History will deliberately pronounce that among eminent men no one has left a more stainless and none a more splendid name"[4]

In the city where these greatest benefactors of humanity lived and taught it is indeed a high honour to have been called upon to open a scientific discussion. I did not know until I received the agenda paper that the subject intrusted to me was to occupy the whole time of the meeting. On looking over my paper on the journey north I could not help being struck with the contrast between even a practical paper and the triumphant achievements of the Edinburgh school The exclamation of Tony Lumpkin when Diggory handed him a letter came to my mind:—

"A damned cramp piece of penmanship as ever I saw in my life."[5]

The greatest trust between man and man, writes Lord Bacon in his essay on Counsel, is the trust of giving counsel We have it on the authority of his greater contemporary that

"Some men have greatness thrust upon them."[6]

This is my fate, for to offer counsel on the subject of the treatment of abscess of the brain presents transcendant difficulty, and to be requested so to do implies a trust in my ability which I am only too conscious will fall short of the standard set before me. In fact, not to put too fine a point upon it, I somewhat fear my fate may be comparable to that of Metis[7] whose name, Bacon tells us, signifies counsel It was her fate to be married to Jupiter who, as soon as she conceived, ate her up lest he might be deprived of any of her counsel I do not imagine that the members present will appraise my counsel so highly that they will be anxious to follow the lead of Jupiter, but should that consummation happen it is my fervent prayer that they may partake of a spiritual rather than of a corporeal feast Macbeth tells us—

"The time has been
That when the brains were out the man would die
And there an end."[8]

Though this dire calamity frequently dogs our footsteps, yet the times have changed, for now the society's "great consult begins,"[9] not, as in Milton's Stygian Council, held at Pandemonium, by the passing of "resolutions in despair,"[10] but having gained "reinforcement of hope",[11] from past success we—

" meanwhile revive,
Abandon fear, to strength and counsel joined
Think nothing hard, much less to be despaired."[12]

"Things unattempted yet" the advance of knowledge will make possible, the tide of Truth is ever flowing,

"For while the tired waves, vainly breaking,
Seem here no painful inch to gain,
Far back, thro' creeks and inlets making,
Comes silent, flooding in, the main."[13]

So it has been in the advance of surgery. Only by slow degrees has problem after problem been grappled with and solved One of the latest triumphs of the art of the chirurgeon is shown in the operative treatment of abscess of the brain In a steadily increasing number of instances it can truly be said of the surgeon —

" strangely visited people
All swoln and ulcerous, pitiful [in the brains],
The mere despair of surgery, he cures."[14]

Although in the surgical treatment of disease of the brain we are as yet only on the threshold of success, nevertheless the near approach of a perfect understanding of these matters may be confidently predicted Then will it be possible to enter into the thought of the Roman poet —

"No pleasure is comparable to the standing upon the vantage ground of truth [a hill not to be commanded and where the air is always clear and serene] and to see the errors, and wanderings, and mists, and tempests in the vale below"[15]

"The more I think of it," says Ruskin, "I find this conclusion more impressed upon me—that the greatest thing a human soul ever does in this world is to *see* something and tell what it *saw* in a *plain* way" In this paper an attempt is made to tell in a *plain* way a few of the things which I see with regard to abscess of the brain "Whether these seeings are there at all is another matter" The object in view is to induce my colleagues and fellow workers to tell also what they have seen "The practical bearings of our theme" are of incalculable interest to science and to man. Correct observation is the vital "thread which binds the facts" and widens the field of knowledge

General Considerations.

Before describing the exact details which must be carried out in th[illegible] the brain certain general [illegible] An abscess of the brain is [illegible] texture"[16] This tissue, [illegible] n the blood and inclosed in an inextensile bony capsule, is subject to the laws of hydrostatics The integrity of certain parts of it is essential to the continuance of life Placed within the cranium the abscess is, until exposed by operation, quite [illegible]

[illegible]

the objective and subjective symptoms upon which the diagnosis is made point to a lesion of the cerebral substance but do not indicate clearly its nature and extent The surgeon has to operate without any certain knowledge as to the size of the abscess and the acuteness of the inflammation, nor can he often truly surmise whether he has to deal with circumscribed or diffuse suppuration or both. Even when the history seems to point clearly to an acute condition it may be found that the abscess is of old standing. Abscess in the brain may be latent, producing only general symptoms of ill health, until excited to renewed activity by a febrile attack by a blow on the head or by some minor operation, such as the removal of a polypus. By a latent brain abscess, then, is meant one producing no symptoms directly referable to a lesion of the brain. Such an abscess is, in all parts of the body, inclosed in a capsule. An abscess producing slight symptoms over a considerable period of time may not be encapsuled. This is true of the brain as of the neck or any other region. This variety of abscess has a tendency to extend, causing local destruction of tissue. A history of long-continued cerebral symptoms does not necessarily point to the presence of a capsule around the area of suppuration, for in a case of cerebellar abscess with symptoms dating back at least eight months no capsule was found, but the whole cerebellar hemisphere was nothing but a shell of softened grey matter.[18] The two conditions of acute abscess and old encapsuled abscess may exist together, as in a case that occurred to one of my colleagues, now deceased, in which an acute cerebellar abscess was opened with relief to the symptoms, but at the necropsy an old encapsuled abscess was found internal to that which had been opened.[19] I have elsewhere drawn attention to several such instances.

---

[1] By John Brown, M.D
[2] Longfellow: "The Reaper and the Flowers."
[3] W. H Henley: A Book of Verses, "The Chief"
[4] Essay on the Earl of Chatham.
[5] Goldsmith: "She Stoops to Conquer," Act IV, line 383.
[6] Twelfth Night, Act III, Scene 4, line 43.
[7] Essay on Counsel.
[8] Act III., Scene 4, line 78
[9] Paradise Lost, Book I., line 798.
[10] Ibid, Book I, line 190.
[11] Ibid, Book VI, line 495.
[12] Ibid., Book I., line 16.
[13] Poem by A. H Clough, "Say Not the Struggle Nought Availeth."
[14] Macbeth, Act IV, Scene 3, line 150.
[15] Lucretius: see Bacon's Essay on Truth.
[16] Paradise Lost, Book VI line 348.
[17] Tennyson's "Maud," Part II, iv. 8.

The question must now be asked, How is an abscess of the brain to be treated? There can be no discussion as to the nature of the reply. Stäcke[20] says: "Otology is an offshoot of surgery and only in close adherence to it and in the true and conscientious observance of its principles is success to be sought for and to be found. The most important principle is the care for free unhindered spontaneous drainage." These significant words were written in reference to the treatment of middle-ear suppuration and they apply with equal force to the treatment of abscess of the brain, which is the only too frequent result of failure to comply with them. Success can only be won by close attention to those fundamental surgical principles which guide us in the treatment of abscess elsewhere. In one of the most recent text-books on surgery[21] we find these principles thus tersely stated: "In the treatment of an abscess there is one absolute rule which knows no exception—viz., that whenever and wherever pus is found the abscess should be evacuated at once, and after evacuating it thorough drainage must be provided for." To which may be added that when a purulent collection is encapsuled enucleation is the proper treatment. In the great majority of abscesses in the brain, as elsewhere, there is no capsule. The following is, however, an instance in which a capsule one-eighth of an inch thick was present, but owing to a mistake in diagnosis the abscess was not removed.

A man, aged 40 years, was admitted to hospital on Sept. 14th, 1895, with severe occipital pain, vomiting, and slow cerebration. He had paralysis of the right sixth nerve and double optic neuritis. He lay on his right side in bed. There were forced movements to the right and rotation to the right in walking. With the eyes shut he fell backwards and to the right. In the beginning of May in the same year he had a severe illness with shivering, sweating, and rigor, said to have been of influenzal origin. This had been followed by slight loss of power on the left side from which he had recovered. About 10 days before admission the headache and other symptoms returned. On the day following admission (Sept. 15th) a rigor occurred at 5.30 P.M.; at 6.30 coma was complete; at 7.30 artificial respiration was necessary and was continued until I arrived. I was told that the case was thought by the physician to be one of cerebellar tumour. Considering it almost impracticable to remove a cerebellar tumour during the performance of artificial respiration, and thinking that the left-sided paresis might be due to involvement of the right cerebral hemisphere, I removed a large area of bone over the right motor cortex. The brain bulged under great pressure, but natural respiration did not return. A trocar and cannula were plunged in up to the hilt and impinged upon a hard mass into which it would not penetrate. As this was thought to be a solid basal tumour which could not be removed the operation was abandoned. The necropsy revealed an encapsuled abscess containing an ounce of thick greenish pus, replacing the right optic thalamus. The capsule was very firm and quite one-eighth of an inch thick. This abscess might have been enucleated had it been recognised.

When there is no capsule the treatment is free incision and drainage, but the provision of drainage is more difficult in the brain than in other more solid tissues where, by free incision and counter-opening, it is easy to establish drainage and effect a cure. The difficulty is that in the "liquid texture" of the brain as soon as the abscess is opened the intracranial pressure causes the fluid brain substance surrounding the abscess to flow towards the surface, so that a large portion of the cavity of an unencapsuled abscess is at once shut off from communication with the incision.

Since micro-organisms behave in the brain as they do elsewhere in the body the question naturally arises, should the bacteriology of the abscess modify the treatment? It has been already pointed out that until the brain has been entered it cannot be discovered whether the abscess is localised or is spreading. The virulence of manifest suppuration presents clinical features which indicate its bacteriology to the mind of the surgeon who has had some training in that subject. These clinical signs cannot be observed in the case of brain abscess, but it is nevertheless supremely important to determine the nature of the micro-organism at the earliest possible moment, as the use of a suitable antitoxin may prove to be a valuable weapon in the fight against death.

DETAILS OF OPERATION.

We now proceed to consider step by step how the surgical principles of the treatment of abscess are to be carried out in the case of the brain. It is taken for granted that the local source of infection has been thoroughly removed. The abscess must now be exposed by an appropriate operation the steps of which are the following.

1. *Sterilisation of the skin.*—Shave the scalp, scrub it with ethereal soap and sterilised water, wash the soap away with sterilised water, rub firmly with turpentine on a sterile swab and then again with ether. If the operation is not to be done immediately apply sterilised lint soaked in a glycerine solution of perchloride of mercury (1 in 1000). If the operation is proceeded with at once swab the skin with strong carbolic or perchloride lotion.

2. *Anæsthesia.*—The anæsthetic should be chloroform and it should be given warily, for, especially in cases of cerebellar abscess, respiration is apt to cease. On two occasions it has happened in my experience that with the first few inhalations of chloroform respiration ceased and the operation had to be completed during the performance of artificial respiration. Neither morphia nor strychnia should be administered before the dura has been opened.

3. *Incision of the scalp.*—A flap is to be preferred to a crucial incision. It should be cut with its base downwards and should be considerably larger than the opening designed to be made in the skull.

4. *Opening in the bone.*—I am convinced that failure may result from neglect of the rule of surgery to make a free opening. How can a free opening into the abscess be effected through an inadequate opening in the bone?

> "Wounds by wider wounds are healed,
> And poisons by themselves expelled."[22]

The trephine employed should be five-eighths of an inch in diameter, of slightly conical shape, and should have the teeth outside. (*a*) In temporo-sphenoidal abscess the site of application should be about seven-eighths of an inch above the supra-meatal spine, the object being to expose the lowest part of the middle fossa just external to the tegmen antri and tegmen tympani. Immediately above these tegmina are the tissues in which, as a rule, the infective process first develops. When the disc of bone has been removed by the trephine more bone should be cut away with small saws, forceps, or Cryer's drill until the opening in the skull is enlarged to a parallelogram measuring one and three-quarter inches antero-posteriorly and one inch vertically. The lower edge of the parallelogram is marked by that of the trephine opening. Three-quarters of an inch of its antero-posterior extent should lie behind the centre of this aperture and one inch in front. The lowest part of any abscess in the temporo-sphenoidal lobe can be efficiently drained through this opening, and the bone disease which is the source of infection can be directly observed and removed. I have known a case where a temporo-sphenoidal abscess was opened at its highest part and where life was only saved by making a counter-opening in the situation here recommended, the man having been for some weeks in a condition of cerebral irritation. If the abscess is above and behind or above and in front of the opening more bone should be taken away, so as completely to expose the surface of brain which is external to it, or if the surgeon so prefer he can make a trephine opening higher up and utilise the lower aperture as a counter-opening. The former method is recommended. (*b*) In operating for cerebellar abscess the same trephine should be used. It should be placed on the bone so that its anterior edge touches the posterior border of the mastoid process. Its upper edge should be just below Reid's base line. In this way the horizontal and vertical portions of the sigmoid sinus are avoided. The opening should be enlarged backwards and downwards until it is quite one and a quarter inches in antero-posterior, and one inch in vertical, extent. The opening may require enlargement, especially in cases where the abscess extends into the posterior part of the lateral lobe. It cannot be carried forwards with much advantage as the vertical portion of the sinus is in the way of incision of the dura in this direction It is to be especially remembered that the removal of bone while comparatively easy before incision of the dura mater is not so satisfactorily accomplished when that membrane has been incised and the brain is bulging under pressure.

---

[18] Allbutt's System of Medicine, vol. vii., p. 590.

[19] St. Thomas's Hospital Reports, vol. xxiii., p. 208.

[20] Berliner Klinische Wochenschrift, 1889.

[21] Da Costa: Modern Surgery.

[22] Butler: Hudibras.

5 *Incision of the dura mater.*—Here, again, a flap is preferable to a crucial incision. A small aperture should be made with a knife and the flap (having its base upwards)[23] should then be cut with fine blunt-pointed scissors. Great care must be taken to avoid wounding the vessels of the cortex which are forced by the intracranial pressure into close contact with the membrane.

6. *Discovery and incision of the abscess.*—When there is a sufficient opening in the bone it may be possible to determine by palpation that the abscess is immediately sub-cortical. An incision should at once be made through the intervening portion of brain substance into the abscess cavity, care being taken to avoid wounding the vessels as in other parts of the body. The use of a trocar and cannula, a pus-seeker, or other special instrument is unnecessary and contrary to surgical principles. If the site of abscess is not obvious it must be sought for by exploratory puncture, and in so doing it should be remembered that the site of the abscess is almost certainly close to the bone disease which gave rise to it. The best instrument to use is a sharp-pointed, long, and narrow knife. Our brains are not like *Satan's*—

"Entrails, heart or head, liver or reins,"[24]

which Milton tells us could

"Not in their liquid texture mortal wound
Receive, no more than can the fluid air";

and a wound made by the surgeon's knife will not heal quite so readily as that inflicted by the sword of Michael; yet in the brain, as elsewhere, clean-cut wounds heal more readily than any others, and there is certainly less risk of the abscess being missed when search is made for it with a sharp knife than when any other instrument is employed. Cases could be related of (1) trocar and cannula missing the abscess; of (2) trocar and cannula passing through the abscess without tapping it; and of (3) trocar and cannula striking the abscess but failing to penetrate its capsule (as in one case already related). The following is an instance of trocar and cannula failing to evacuate a large abscess. The brain was explored in various directions with a trocar and cannula with a negative result. At the necropsy there was found a large abscess with very thick walls containing over four ounces of green offensive pus. So thick was the wall that the abscess shelled out whole and could be rolled about the table. In fact, it needed a sharp plunge with the knife to open it.[25] The use of the knife for the evacuation of an abscess of the brain is not a new operation, but was taught and practised more than a century ago. Dupuytren[26] in one of his lectures says: "In certain cases of deeply-seated fluid collections we must incise the dura mater, the arachnoid, the brain itself if the *focus* is at the surface of this organ, and by this bold proceeding patients have been saved." A little further on in the same lecture he continues: "Relying also on the success of J. L Petit, Boyer concurs in the advice of Quesnay and does not fear to plunge the bistoury quite deeply (*assez profondément*) into the very substance of the brain in order to evacuate traumatic effusions which may have formed there, and it has fallen to my lot to do so several times with success." Like many another step in the advance of knowledge this advice, though justified by some brilliant successes, remained for a considerable time a dead letter, for we find a great English surgeon writing nearly half a century later: "There are few surgeons who would have the hardihood of Dupuytren, who plunged a bistoury into the substance of the brain and thus luckily relieved the patient of an abscess in this situation."[27] And after yet another decade the famous case of Dupuytren is thus alluded to in a later edition of the same work: "This was doubtless a somewhat rash thing to do without previously ascertaining the presence of pus by milder means."[28] Dupuytren, in his account of this historical case, says simply: "I incised the dura mater, nothing came out; I thrust a bistoury cautiously" (? so as to avoid the vessels of the cortex) "into the brain and there welled up immediately a flood of pus. That very night all the symptoms disappeared and the patient recovered."[29] If careful exploratory puncture with the knife fail to find the abscess the finger inserted into the brain substance will almost infallibly detect the presence of a tense abnormal swelling. Mistakes, however, may still be made, as is illustrated by two cases related in my article on "Certain Affections of the Ear" in Clifford Allbutt's "System of Medicine." In one of these one cerebellar abscess and in the other two had been opened, yet both patients died from an unopened abscess, oyster-like in shape, lying immediately beneath the cortex of the upper surface of the cerebellar hemisphere. The examining finger felt the sensation of resistance, but this was attributed to the tentorium.

7. *The further treatment of the abscess.*—When the cavity is not entirely closed by the waves of brain substance it may be gently irrigated with a weak antiseptic; but on no account should this be done unless two drainage-tubes are so arranged as to insure the free escape of the fluid. Sterilised normal saline solution is recommended. Unless the opening in the cortex is large I am opposed to the tamponing or packing of the cavity with gauze because the tampon tends to obstruct the free exit of septic material. In one case of abscess of the temporo sphenoidal lobe in which I removed a large area of bone I ligatured and removed the cortex corresponding to the outer boundary of the abscess. The inner wall of the abscess which was at first treated by gauze plugging soon came to form part of the outer surface of the brain and was thus directly accessible for dressing. The best results ensued.

As to drainage-tubes, the rules for their use in abscess of the brain do not differ in any way from those which apply to their employment in the healing of suppurating areas elsewhere. When a tube has been successfully introduced it should not be disturbed for some time. The most successful cases treated in this way are those in which the tube remains undisturbed for many days. Tubes are shortened or removed only as the cavity heals from the bottom. The nature of the tube is of little consequence. All tubes are liable to become blocked with brain débris.

In the case of a small abscess deeply placed in the anterior and inner portion of the cerebellar hemisphere the surgeon may be unwilling to use the knife for evacuation. Recourse must then be had to the exploring trocar and cannula, the latter having rings of wire attached by which, when it has penetrated the abscess, it may be immediately fixed to the scalp by silkworm gut. Many a case has been lost after the pus has been evacuated owing to failure to re-introduce the tube in the proper position. The trocar and cannula should be of platinised silver. In the event of a counter-opening being made or of drainage occurring through the external auditory meatus gentle irrigation through the diseased area of brain is beneficial, just as it is in cases of abscess with a counter-opening elsewhere.

8. *Closure of the wound and dressing.*—An aperture is now made in the base of the flap of the size of the opening in the brain, and the edge of the flap is replaced in position and sutured with fine silkworm gut. A powder may be used for dusting around the wound but it should be sterilised. The dressing may be of sterilised cyanide gauze, either used dry or wrung out of carbolic lotion (1 in 40). A dry sterilised cyanide dressing is recommended and the bandage should, if possible, be so managed as not to cover the forehead.

9. *After-treatment.*—This is a matter demanding the close

---

[23] Suggested to me by Dr C. D Green.

[24] "Paradise Lost, Book VI, line 346.

[25] Abbott: St Thomas's Hospital Reports, vol. xxv, p. 205.

[26] Leçons Orales, second edition, vol vi., pp 183-4 (published 1839, date of lecture not given).

[27] Erichsen's Surgery, seventh edition, 1877, vol i., p. 532.

[28] Ibid., ninth edition, 1888, vol. i., p. 781.

[29] Leçons Orales, Ibid., p. 146.

personal attention of the operator. The dressing may require to be changed daily or not at all, according to the nature of the disease and the condition of the wound. (1) The primæ viæ should be kept open by the administration of some preparation of mercury. I have found, too, in septic cases that the pill of colocynth and hyoscyamus is very efficient in clearing the intestine of foul-smelling fæces. (2) In regard to food it may be noted that barley-water and beef tea are often borne by the stomach when milk is rejected. (3) As to alcohol, in certain cases we can hardly do without it. When it must be given I personally prefer to order old brandy, though in this city old Scotch whisky would, no doubt, be selected. Far be it from me to assent to the "startling question" of the gifted Calverley[30] that both the ancient Greeks and the Scotch ought to have invented and adhered to another beverage.

> "The Greek mind must have had some vital fault,
> That they should stick to liquors so injurious—
> (Wine, water, tempered p'raps with Attic salt)—
> And not at once invent that mild, luxurious,
> And artful beverage, Beer." ....
> Then nectar—was that beer, or whisky-toddy?
> Some say the Gaelic mixture, *I* the Saxon:
> I think a strict adherence to the latter
> Might make some Scots less pigheaded, and fatter."

(4) Hernia cerebri is an evidence of sepsis. It is best treated by sterilised antiseptic dressings. To prevent the dressing from adhering to the hernia some form of protective should be used—perhaps gold leaf is the best; slight elastic pressure is useful in the later stages of the treatment.

10. *Recurrence of symptoms.*—It is by no means uncommon to have a return of symptoms a few days after the evacuation of the abscess, due either to the refilling of the abscess cavity from faulty drainage or to the formation of a new abscess in another part of the same lobe. In the cerebellum it is by no means infrequent to have a second or even a third abscess. Instead of concentrating the attention on the original site of abscess the new symptoms, such as high temperature, rapid irregular pulse, screaming fits, retraction of head, general twitchings, vomiting, drowsiness, &c., may suggest conditions such as meningitis or acute distension of the ventricles which are not present. The surgeon being led astray by these speculations may fail to act wisely. We may perhaps apply the words of Goethe[31]:—

> "I tell you what; your speculative wretch
> Is like a beast upon a barren waste,
> Round ever round by an evil spirit chased,
> Whilst all about him fair green pastures stretch.

Your great countryman, Carlyle, has said: "Genius is the transcendent capacity for taking trouble first of all." And Joubert has written: "Genius begins great works, labour alone finishes them." Both of these maxims are eminently true of the treatment of abscess of the brain. In order to succeed the surgeon must "take trouble first of all" in weighing well every point in the history and symptoms of the case and in planning and executing the operation with minute attention to every detail. And in order to finish his "great work" he must spare neither labour nor time in watching the progress of the case and in personally carrying out all the minutiæ of the after-treatment. Many are the vicissitudes of the days and weeks that follow the operation. To be able to choose with certainty and to carry out with precision the various measures which make for success and oppose a disastrous termination the surgeon must have at his command an exact knowledge of the significance of the various symptoms that arise and of the resources and methods available for their systematic treatment. The surgeon cannot here delegate his duties or shift his responsibility, and amid the difficulties that beset him in combating the disease he may well utter the prayer which the veterans of Frederick the Great sang as they marched to meet the foe at the battle of Leuthen—

> "Grant that with zeal and skill this day I do
> What me to do behoves, what Thou command'st me to
> Grant that I do it sharp, at point of moment fit,
> And when I do it grant me good success in it."[32]

And when the case has been brought safely through all difficulties and dangers into the smooth water of convalescence we may well say of the surgeon who saves his patient as Bunyan[33] did of his victorious pilgrim:—

> "Hob-goblin nor foul fiend
> Can daunt his spirit;
> He knows he at the end
> Shall life inherit!
> Then fancies fly away,
> He'll fear not what men say;
> He'll labour night and day"
> [To save his patient].

In conclusion, allow me to say how well I know the toughness of the problem which the surgeon has to face in coming to a decision to operate in certain cases suspected of harbouring an abscess of the brain. The advice given to Richard Plantagenet is much to the point:—

> "But yet be wary in thy studious care."[34]

Delay as the result of consultation may be disastrous, "for occasion turneth a bald noddle after she hath presented her locks in front and no hold taken";[35] and "the ripeness or unripeness of the occasion must ever be well weighed."[36] On the one hand, boldness alone is "ill in counsel, good in execution"[37]; on the other hand, "it is a dangerous thing to trace the thread of knowledge a little way and fancy we have found the end."[38] What is required in consultation is knowledge, experience, a grave sense of responsibility, and the strength to accept the consequences arising therefrom; indeed, to fulfil the Pauline exhortation, "Be strong—quit yourselves like men."[39] When the decision to operate is made it should be acted upon at once; hesitation or delay may be fatal. A patient suffering from cerebellar abscess has died in the night, the operation having been arranged for the following day—"True despatch is a rich thing." "Yet and but,"[40] said the Templar in "The Talisman," "are words for fools; wise men neither hesitate nor retract, they resolve and they execute."[41]

But still, in spite of all our care and pains, success may be wooed in vain. There may be no abscess or, if present, it may not be found.

> "The best laid schemes o' mice an' men
> Gang aft agley,
> An' lea'e us nought but grief an' pain
> For promis'd joy."[42]

"The smallest actual good," says Macaulay, "is better than the most magnificent promises of impossibilities"; and the stay of the surgeon in the midst of depression, discouragement, and defeat is the consciousness that he has "faithfully rendered an unrewarded obedience to the command"[43] of the Preacher.[44]

> "The man who though his fights be all defeats
> Still fights
> Enters at last
> The heavenly Jerusalem's rejoicing streets"[45]
>
> "In earthly races
> To victors only do the heralds call;
> But, oh! in yonder high and heavenly places
> Success is nothing and the work is all."[46]

Yet, kindled by the past the surgeon may surely say, "I shall arrive ...... the succession cannot break. The further evolution must go on the Higher Kingdom come; first the blade where we are to-day; then the ear where we shall be to-morrow; then the full corn in the ear which awaits our children's children and which we live to hasten."[47]

---

[30] Verses and Translations, "Beer," by C. S. C.

[31] Faust, Act II, Scene 4 (Sir T. Martin's Translation).

[32] Carlyle's translation, See History of Frederick the Great, Book xviii., Chapter x.

[33] The Pilgrim's Progress, Part II.

[34] Henry VI, Part I., Act. II., Scene 6, line 97.

[35] Bacon's Essays, "Of Delays."

[36] Ibid.

[37] Bacon's Essays, "Of Boldness."

[38] A. W. Holmes-Forbes. The Science of Beauty, p. 195.

[39] 1 Cor xvi. 13; 1 Sam. iv. 9.

[40] Bacon's Essay, "Of Despatch."

[41] Chapter xix.

[42] Burns: To a Mouse, verse 7.

[43] Ruskin: Sesame and Lilies, Lecture iii.

[44] Ecclesiastes ix. 10.

[45] C. Patmore: The Unknown Eros, "Victory in Defeat."

[46] Quoted from a biographical sketch of Sir William Gull.

[47] The Ascent of Man, Chapter x., by H. Drummond.

HEALTH OF CHELTENHAM.—Dr. J. H. Garrett, medical officer of health of Cheltenham, has just issued his report on the sanitary condition of that borough for the year 1900, the statistics which he presents being on the whole the most favourable in the history of the borough. The zymotic, infant, and general death-rates were all below the average. The general death-rate of 14 per 1000 is a record, and in portions of the borough—namely, in the South and West Wards taken together—it was only 10·3 per 1000. The mortality from the chief zymotic diseases was 0·71 per 1000. The infant death rate was 115 per 1000 children born. The highest birth-rate during the last 10 years was 22·5 per 1000 in 1893; in 1900 it was 19·7 per 1000.

The Erasmus Wilson Lectures

ON

THE PATHOLOGY AND DISEASES OF THE THYROID GLAND.

Delivered at the Royal College of Surgeons of England on Feb. 18th, 20th, and 22nd, 1901,

By WALTER EDMUNDS, F.R.C.S. Eng.,

SURGEON TO THE TOTTENHAM HOSPITAL; SURGEON TO OUT-PATIENTS AT THE EVELINA HOSPITAL FOR SICK CHILDREN.

LECTURE III.[1]

Delivered on Feb 22nd, 1901

Mr. President and Gentlemen,—With respect to myxœdema and cretinism, as time is short, it must suffice to say here that the working out of the nature and treatment of these diseases is one of the most brilliant of the recent advances of medicine, and that our knowledge of their pathology seems now so well established as to admit of little discussion and to justify us in treating it as firm ground from which to proceed to the investigation of other and probably more complex ailments. But there is one point in connexion with myxœdema which may detain us a minute as it has led to some diversity of opinion. We have seen that in experimental removal of the thyroid gland (whether the parathyroid glands are also removed or not) there is often a narrowing of the palpebral fissures; in myxœdema the palpebral fissures are also narrowed, but the narrowing is generally attributed to the swollen condition of the eyelids. It is, however, doubtful if this is the whole explanation, and, indeed, Allen Starr says distinctly that it is not. "In myxœdema," he writes, "there is a marked tendency to abnormal heaviness of the eyelids, so that the upper lid falls and the eyes are never widely open. This falling of the lid appears to be independent of its thickening by the myxœdema; there is also a retraction of the eyeball. I have noticed in all my cases after a cure of the myxœdema that the eyeball had been previously decidedly retracted, so that when the patient was cured and the eyeball was in its natural position the previous retraction, as shown by photographs, became noticeable."

With respect to cases of sporadic goitre without symptoms—that is to say, cases in which the presence of the goitre is the only trouble—it seems now to be clearly established that the administration of thyroid gland is the best treatment. I had under my care a case of ordinary goitre in a young girl which was treated with some success with iron, iodide of potassium, and other remedies, but it was not until thyroid gland was administered that rapid improvement took place. Some time after the cessation of treatment a little enlargement of the thyroid gland reappeared, but this again was speedily removed by thyroid gland treatment. A second case of goitre was also cured, at least for a time, by thyroid gland administration. The effects of this treatment are so good that it must be regarded as a specific remedy; if it is, the enlargement of the thyroid gland must, in part at least, be attributed to an attempt at compensation, and that attempt must be unsuccessful, for otherwise the increase in size would not proceed to the large dimensions that it does

Formerly goitres were occasionally treated by excision, but the constitutional results following this operation were often so serious that complete excision is now abandoned. These results were: (1) a feeling of weakness and lassitude; (2) coldness of the hands and feet even in summer; (3) slowness of thought, of speech, and of other movements; (4) œdema of the eyelids, lips, hands, and feet; (5) bulkiness of the face, hands, feet, and trunk; (6) dryness of the skin and the falling out of the hair; and (7) in children an arrest of bodily and mental development. These symptoms were almost always chronic in their character, and their resemblance to the effects of experimental excision of the thyroid gland proper is noteworthy; but one case of acute myxœdema is on record. From a girl, aged 18 years, the late Sir William Stokes excised one lobe of a large goitre; the only result was a satisfactory diminution of the remaining lobe. After three and a half months the remaining lobe was excised; this after 11 days was followed by convulsive seizures, puffiness of the eyelids, the face, the hands, and the feet. mental torpidity, and slowness of speech. The patient died from exhaustion only 21 days after the second operation. The absence of ill-effects after the first operation and the rapidly fatal termination after the second resembles what happens in dogs after the removal of the thyroid gland and the parathyroid glands first on one side and later on the other. Although in goitre the removal of the whole thyroid gland is now not practised the removal of one lobe is not unusual, both in ordinary goitre and in Graves's disease; this, as in Sir William Stokes's case, is often followed by shrinking of the opposite enlarged lobe. When a goitre causes dyspnœa by pressing on the trachea it becomes necessary to remove a portion, and generally the isthmus is excised; this operation, too, is often followed by atrophy of the enlarged lateral lobes. It is necessary to remember in connexion with pressure symptoms that attacks of dyspnœa occur in Graves's disease, and also, it is said, in ordinary goitre, quite apart from any mechanical cause; they are similar to, and presumably due to the same cause as, the attacks of rapid breathing which constitute so prominent a symptom in the experimental aparathyroidea of dogs.

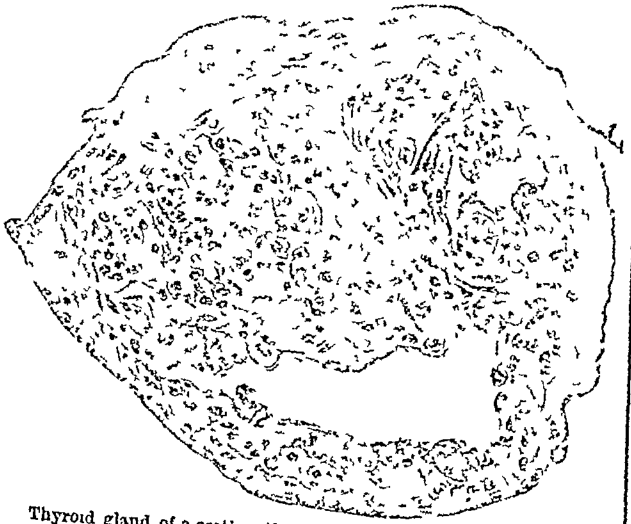
It is probably best to include under the term "Graves's disease" all cases of goitre with symptoms not to be explained by pressure No dividing line can be drawn between the typical cases and those with less pronounced constitutional symptoms.

With respect to the pathology of Graves's disease it has been discussed whether the primary lesion is in the nervous system or in the thyroid gland, whether, in other words, some nervous derangement causes the goitre and other symptoms or whether the goitre is the cause of the exophthalmos and cardiac disturbance. Originally the starting point of the disease was thought to be the cervical sympathetic, but latterly it has been contended that the secretion from the goitre is the cause of the palpitation. the exophthalmos and the other symptoms. This view has been urged by Möbius in Germany and in this country by Professor Greenfield in the Bradshaw Lecture of 1893 There is much to be said in its favour. In the first place, in an ordinary case of Graves's disease the enlargement of the thyroid gland is, as a rule, obvious, and when the opportunity offers it may be seen under the microscope that the gland is in a state of active secretion. On the other hand, the nerve lesions are extremely uncertain: one observer has found one change, one another, and when in a fatal case of Graves's disease a systematic examination of the nervous system has been made the result has generally been negative. Secondly, the marked contrast that exists between myxœdema and Graves's disease supports the thyroid secretion view. The first, at least in this country, to emphasise these distinctions was Byrom Bramwell and they are well set forth in his recent work. 1. In myxœdema the thyroid gland is atrophied and its secreting structure is destroyed; in Graves's disease the thyroid gland is enlarged and its secreting structure, though modified in character, is increased in quantity. 2. The symptoms of myxœdema almost always come on slowly and insidiously; those of Graves's disease not infrequently come with considerable rapidity, sometimes, indeed, after profound emotion, suddenly 3 Myxœdema is usually developed at a later age than is Graves's disease; it comes, as a rule, between 35 and 45 years of age while Graves's disease appears between the ages of 15 and 35 years, very rarely after 50 years of age. 4. In myxœdema the temperature is subnormal; in Graves's disease it is usually normal, but temporary elevations occasionally occur, its equilibrium being easily disturbed, and the patients often complain of a feeling of heat and cold. 5 In myxœdema the skin is extremely dry and harsh and perspiration is diminished, in Graves's disease the skin is moist and perspiration is increased 6 In myxœdema the bowels are usually constipated whereas in Graves's disease diarrhœa is not uncommon 7 In myxœdema the mental condition is placid and slow, while in Graves's disease there is considerable mental excitement. 8 Myxœdema is much benefited by thyroid gland treatment; Graves's disease is not, as a rule, benefited by this treatment, and some cases are made worse by it. A third argument in favour of the thyroid secretion view is that, as we have already seen, most of the symptoms of Graves's disease other than the goitre can be produced by the administration of thyroid preparations. A fourth argument is found in the cases of ordinary goitre which after years become converted into cases of Graves's disease; it seems more probable that some change should have occurred in the thyroid gland or secondarily to it than that a primarily central nervous lesion should have produced no other symptoms for years. Graves's disease is not known to occur secondarily to myxœdema. A fifth argument is derived from the good effects which often follow the removal of a portion of the goitre in Graves's disease. In a considerable number of these cases the removal of a lobe of the enlarged thyroid gland has been followed by marked improvement and, indeed, by cure. But there are certain objections to the secretion view. There seems no doubt that the thyroid gland is always enlarged in Graves's disease and that it is in a state of active secretion, but it does not follow that its secretion is identical with that in health, and although the observations of Hutchison and Soupault tend to show that it is, too much stress must not be laid on arguments derived from the action of normal colloid. In the thyroid gland in Graves's disease there is proportionately less colloid and in some cases no colloid at all. The microscopical examination of the thyroid gland in Graves's disease reveals various changes: (1) the vesicles instead of being round or square in section become branched and stellate; (2) the lining membrane is folded on itself; (3) the secreting cells instead of being cubical are columnar; and (4) the colloid in the vesicles has partly or wholly disappeared and its place is taken by a secretion which takes the microscopic stains badly. Now these changes are practically identical with those of compensatory hypertrophy as seen in animals after partial removal experiments. Indeed, the resemblance is so close as to lead to the conclusion that the changes in the thyroid gland of Graves's disease are also compensatory in character—in other words, that they are secondary to some defect elsewhere in the system; that defect may possibly be in the parathyroid glands, but there is no evidence on that point either way at present. In my experiments of excising the parathyroid glands the thyroid lobes underwent these changes microscopically, but to the naked eye they did not seem enlarged; on the contrary, some of them appeared to be smaller (Figs. 12 to 20). It must be admitted that occasionally in cases of goitre without Graves's symptoms similar appearances are seen, but, as far as my experience goes, this is exceptional. Also against this view may be shown sections from two cases of adenoma of the thyroid gland; in one the sections are like normal thyroid gland and in the other there are hypertrophic changes. The first case had no constitutional symptoms; the second was a case of Graves's disease.

---

[1] Lectures I and II were published in The Lancet of May 11th (p. 1317) and 18th (p. 1381), 1901, respectively.

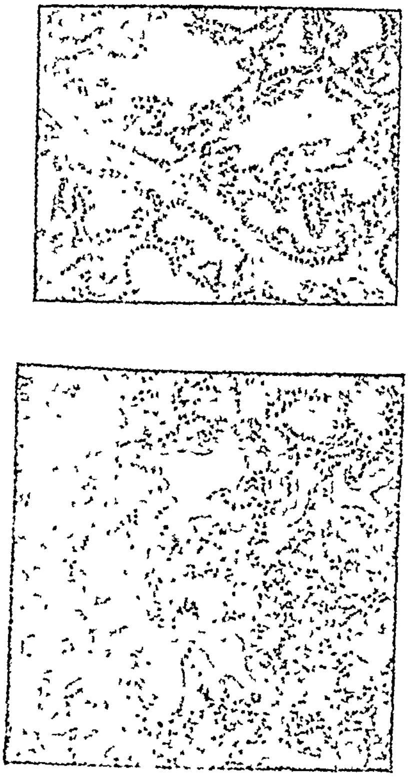
FIG. 12.



Thyroid gland of a cretin the secreting cells have multiplied and are filling the vesicle

The treatment of Graves's disease has been carried out on various lines. The most obvious treatment is rest This no doubt benefits the disease, or at least reduces the symptoms, but it is doubtful how far the benefit persists after the patients are up and about again, and unless they are equal to resuming their natural occupations they cannot be said to be cured or even to be nearly cured. Change of air and quietude are also obviously indicated. With respect to the administration of medicines various drugs have been tried. Belladonna stands in good repute; it may be supposed to diminish the internal secretion, but its reputation is far older than our modern ideas about internal secretion. Bromide of potassium is also given to quiet the nervous system, valerian has been prescribed with the same idea. In order to reduce the size of the goitre iodine has been used both internally and externally. For their action on the heart digitalis and strophanthus have been given, also as tonics quinine and iron. The administration of thyroid gland preparations has been tried and has given different results in different cases; as a rule in doses which would benefit myxœdema no marked results have ensued. In some cases it has been attended with benefit, while on the other hand it has undoubtedly made some patients worse. This was clearly so in a case recorded by Auld in which the exophthalmos was increased, the pulse-rate was raised from 99 to 138, the temperature was elevated above the normal, and diarrhœa, sickness, and vomiting were brought on. Thymus gland feeding has been recommended, but it often fails to be of any use. Pregnancy, when it occurs, is stated by Charcot to be of marked benefit in Graves's disease; he mentions two cases and cites in support the high authority of Trousseau. But Graves's disease sometimes arises during pregnancy. Myxœdema is also said to be benefited by pregnancy, the explanation given being that the mother shares the advantage of the thyroid gland of the unborn infant. This view is supported by the abnormalities found in the thyroid gland of the puppies of partially thyroidless bitches. Halsted found in the puppies of a bitch from which one lobe of the thyroid gland had been removed and which had been sired by a dog that had also in part been deprived of its thyroid gland that the thyroid lobes in the puppies were 20 times larger than were those of normal puppies. I have repeated this experiment of Halsted. From a bitch there was removed on one side the whole of one lobe of the thyroid gland, including the parathyroid glands, and from the other side nearly the whole lobe, leaving, in fact, only one parathyroid gland and a morsel of

FIG. 13 AND FIG. 14.



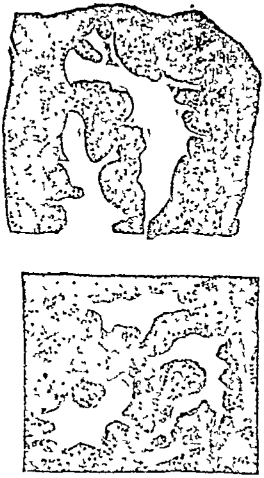
The upper figure shows compensatory hypertrophy in the thyroid gland of a dog 41 days after partial excision of the gland. The lower figure shows the thyroid gland from a case of Graves's disease.

the thyroid gland proper. Notwithstanding this extensive removal of thyroid gland it lived and about four months after the operation it gave birth to a puppy I found in the puppy that the thyroid lobes were large (at least they appeared so to me) On microscopical examination it was found that there was an entire absence of colloid and that the secreting cells, instead of being cubical, were columnar; these are the changes of compensatory hypertrophy and are presumably due to an attempt to compensate for the absence of the thyroid gland in the mother

Graves's disease has been treated by operative methods. These are mainly three—namely, operations on the cervical sympathetic, operations for diminishing the blood-supply to the gland by ligaturing some of its supplying arteries, and operations for the removal of portions of the goitre The operations on the cervical sympathetic are based on the idea that these nerves are the starting point of the disease. We have already discussed the question as to how far the thyroid gland is, and how far the nervous system is, the primary seat of the disease; even if we decide in favour of the nervous system the question arises whether it is the sympathetic or the cerebro spinal system that is at fault. The fact that the internal secretion of the thyroid gland can be sufficiently arrested by division of its supplying nerves to cause death shows clearly that there must be a centre for it in the medulla; we must therefore conclude that even if the nervous system is the starting point the fault lies with the cerebro spinal system and not with the sympathetic. Still, even if the sympathetic is not the primary cause it may be materially involved in the evolution of the symptoms, and of this there is considerable evidence.

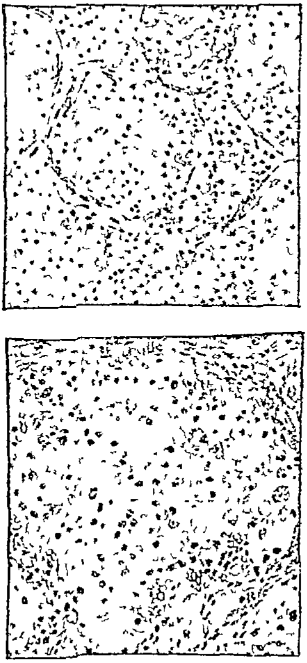
Of the five cardinal symptoms of Graves's disease it seems probable from the experiments related in the last lecture that the sympathetic has to do with the exophthalmos. The heart symptoms can be explained either by a continuous spasm of the accelerator nerves from the sympathetic or by a weakening of the action of the inhibitory fibres from the vagi The latter seems to be the much more probable condition, but there is no reason why the two conditions should not co-exist. Indeed, von Cyon says that in the goitrous animals of Berne they both are present. As to the goitre, the secretory fibres to the thyroid gland would seem to come, as far as we know, by the cerebro spinal and not the sympathetic nerves, and if so the sympathetic would have little to do with the enlargement of the thyroid gland. As to the blood vessels, the goitre, as may be seen in the post-mortem room, is a very substantial thing, not to be explained by engorgement of vessels; moreover, the vaso motor nerves in the sympathetic are constrictors and would make the thyroid gland, if anything, smaller and not larger. The tremors and mental excitement in Graves's disease would be connected with the cerebrospinal and not with the sympathetic system. Even if the sympathetic is the starting-point, it is necessary to consider whether any operation on it which would be likely to be beneficial is feasible In the dog the augmentor fibres of the sympathetic are derived from the inferior cervical sympathetic and the annulus of Vieussens. As in man the third ganglion is behind the subclavian artery and the annulus round it the operation for their removal would be extremely difficult, especially on the left side, for it must be remembered that the operation has to be done on both sides. It is true that in man there are from the superior and middle cervical ganglia cardiac branches which may be augmentor, but as in the dog the augmentor fibres come exclusively from the lower part of the cord it is probable that in man also they do so mainly However, sympathetic operations, varying no doubt in severity, have been performed in man and we proceed to see with what results.

FIG. 15 AND FIG. 16.



The upper figure shows compensatory hypertrophy in the thyroid gland of a dog 132 days after partial removal The lower figure shows the thyroid gland from a case of Graves's disease

FIG 17 AND FIG. 18

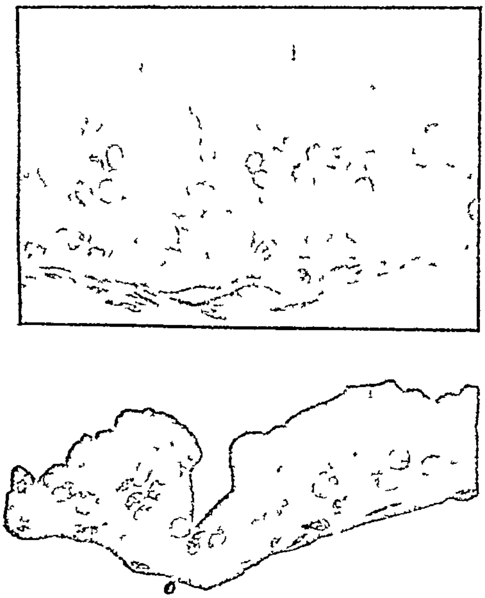


The upper figure shows the thyroid gland of a dog four days after partial removal The lower figure shows the thyroid gland from a case of Graves's disease

Boisson in a thesis for the M D. degree of Paris has collected all the cases he could obtain up to 1898, and to them he adds a valuable critical study of the whole subject. Altogether Boisson has collected 27 cases, but four of these he excludes from analysis as they, for one reason and another, prove nothing Of the remaining 23, 15 were well-marked cases of Graves's disease and eight were ill-defined or *fruste* cases Of the 15 well marked cases two were cured, six were much benefited, three were slightly improved, and one received no benefit, while there were three deaths. Of the eight ill defined cases one was cured, two were much improved, four were slightly benefited, and one was not benefited. By adding the two series together we get as a result of 23 cases operated on: three cured, eight much improved, seven slightly improved, two not improved, and three deaths. Boissou sums up thus: "Successes are rare; in cases benefited it is sometimes one symptom, sometimes another which is improved, and the improvement is sometimes immediate, sometimes late; sometimes there are relapses in the improvement. There are, too, cases of no improvement and cases of death. Neither by division nor by excision, total or partial, have more brilliant results been obtained. From the physiological point of view, too, all is chaos. There is no agreement, no relation between the phenomena noted by the surgeons and those observed by the physiologists; also the surgical effects are in disaccord one with another." Finally, Boissou concludes: "If surgeons have been able by this new operation to modify Basedow's disease the results obtained have no constancy and are as much confused therapeutically as physiologically."

Considering the gravity of those cases in which the exophthalmos leads to ulceration of the cornea I have especially analysed the 27 cases of sympathetic operation collected by Boissou with respect to the effect on the prominence of the eyes Of the 27 cases seven must be omitted either because there was no exophthalmos to start with or because from some cause the record is imperfect. There remain 20 cases; of these seven are said to have been cured of their exophthalmos, five were much benefited, seven derived little or no benefit from the operation as far as the exophthalmos was concerned, and in one subsequently to the operation both corneæ sloughed and the patient, who became blind, died from Graves's disease. This last case and the seven cases in which no improvement followed show that the sympathetic operation is not a specific even for the exophthalmos. Also this last case, in which the patient lost her eyesight and finally died from severe Graves's disease 10 weeks after the sympathetic operation on one side and seven weeks after its removal on the other side, shows clearly that the sympathetic is not the *fons et origo mali.*

FIG. 19 AND FIG. 20.



The upper figure shows the secreting cells in compensatory hypertrophy of the thyroid gland of a dog The lower figure shows the secreting cells from the thyroid gland in a case of Graves's disease

The subject of these sympathetic operations was dealt with by Mr J. Berry in a discussion on a case of Graves's disease at the Royal Medical and Chirurgical Society last year. He expressed the opinion that the sympathetic has nothing whatever to do with Graves's disease and that the sympathetic operation should never be performed. He referred to Boissou's monograph and opined that those who would read it would agree with him; that certainly has been the effect of its perusal on myself. There is, however, a small class of cases in which one might be tempted to perform a limited operation on the sympathetic; I refer to cases of ulceration of the cornea. As these only occur in patients in whom the eyelids cannot be closed the complication must be due mainly, if not wholly, to irritation. Since division of the sympathetic will reduce proptosis, this operation might be tried in these cases, although, as we have seen, it was of no avail in preventing ulceration of the cornea in one case referred to by Boissou, that of Peugnier. I am not aware of this operation having been performed in any case with the express purpose of saving the eyes, but in one case it was recommended by Dr. G. Mackay to Mr. F. M Caird, who, however, preferred to remove one lobe of the thyroid gland, which he did and with a most beneficial effect on the eyes.

The ligature of three of the four arteries to the thyroid gland is an operation which has met with a measure of success, but there may be a difficulty in reaching the arteries behind the enlarged thyroid gland. There remain to be considered the effects of removal of a portion of the enlarged thyroid gland. A considerable number of these operations have now been performed and have been collected, analysed, and considered by various writers. Allen Starr, writing in 1896, had collected 190 cases; 74 of these cases were reported as completely cured; 45 as improved; three as not improved; 23 patients died immediately or within a few hours of the operation; and of the remaining 45 no final report was available.

The occurrence of sudden death immediately after the operation or within a day or two of it is, as Allen Starr well says, a fact of very serious import; it constitutes a most serious bar to the performance of what would otherwise be a promising operation, and it is therefore well worth while to consider its cause. "Death after these operations," says Starr, "is not due to hæmorrhage or to any want of aseptic precautions. In all the cases reported there has been a sudden rise of temperature to 105°, 106°, and 107°; a very rapid pulse (180 to 200); extreme nervous excitement and restlessness with great anxiety and distress, profuse sweating, and finally collapse and death from heart failure." These distressing calamities have been attributed to various causes. Sometimes the anæsthetic has been blamed, but many of the deaths occur rather late for that, especially in the cases in which chloroform has been administered. It must, however, be admitted that animals suffering from athyroidea die very readily from chloroform unless it is administered with extreme caution If the deaths are due to the general anæsthetic cocaine or eucaine can be, and indeed sometimes is, substituted. It seems, however, more probable that the fatal results are in some way due to the operation itself, and if that be so the most obvious and natural view is that the removed lobe is necessary to the life of the patient Another view is that something goes wrong during the progress of the operation. It has been thought that the symptoms are caused by the handling of the lobe during removal, by which its secretion would be pressed into the lymphatics and thus into the circulation, and that the incision into the thyroid tissue has led to a leakage at the time of operation and afterwards into the cavity of the wound from which it has been absorbed. In this way the cause of death would be an excess of thyroid secretion (normal or abnormal) in the circulation—hyperthyroidisation, in fact Consideration, however, of the symptoms themselves would lead to the opposite view—that they are due to too little secretion in the circulation. Attacks of palpitation and dyspnœa, followed by collapse and death, we have seen to occur both in Sir William Stokes's case of acute athyroidea and in experiments on the lower animals. It is, of course, possible that in Graves's disease we have to do with an excess of one constituent of the secretion and a diminution of another, and that this latter condition is aggravated by the partial removal and constitutional disturbance during and after the operation.

Whatever may be their explanation, these cases are, no doubt, a great objection to operating, but they need not wholly turn us from that idea. It must be remembered that cases of sudden death occur in Graves's disease among patients who have not been operated on; they are mentioned in all text-books, and, in fact, are not uncommon. Also the prognosis to life in this disease is not at all satisfactory; death has been recorded as occurring in six weeks from the onset, and even in the favourable surroundings of a hospital deaths do occur from time to time, sometimes suddenly without apparent cause, sometimes from diarrhœa or some complication. Indeed, it is from the cases of those patients who die in hospital that our knowledge of the pathology is mainly derived. What may be the subsequent history of the patients who return home is not certainly known; some of them continue ill for a long time, others may no doubt improve, but it has been denied that cases of Graves's disease ever completely recover, at least without operation. Of the 190 cases of operation collected by Allen Starr 74 are reported as completely cured and 45 more as improved; these results are very encouraging, as are also the records of individual cases One of the earliest operations in Graves's disease was performed by Lord Lister when he was at the Edinburgh Infirmary. The patient was a woman, aged 26 years. She had been ailing for five years, during the last three of which she had had well-marked symptoms of Graves's disease, for which, presumably, she had had medical treatment. It was intended at the operation to remove the whole of the thyroid gland (this was before the dangers of so doing were recognised), but this probably was not done. Before operation the pulse-rate was 130 and the pulse was irregular; five days after the operation the pulse had fallen to 74 and was regular, and in a few weeks the exophthalmos was much reduced. The patient was seen again 10 years later, at which time she was suffering from phthisis. The exophthalmos was slight, the excitement of the circulation was nearly gone, and there was no thyroid tumour, but a slight eminence in the middle line suggested that a portion of the isthmus had been left at the operation; there were no symptoms of myxœdema.

As another example a case recorded by Reidel may be mentioned. The patient, a female, aged 20 years, had suffered for years from a goitre and during the later years there had been in addition palpitation so severe that she complained that her heart seemed trying to jump out of her chest. Exophthalmos was so extreme that it was noticed in the street, and the patient had become extremely nervous, depressed, and much emaciated. The right half of a parenchymatous *goitre was excised; the case did* well. *Three* years after the operation the patient was seen again; she was in good spirits and in full enjoyment of life. The palpitation was completely cured, she could walk for an hour at a stretch, and at a ball could take part in every dance. The exophthalmos and emaciation were gone.

A case in a male under Sir William Stokes's care may also be cited. The patient was a farmer, aged 32 years, who seven years previously had had a fright caused by seeing a friend killed by a threshing machine. Three weeks after this he noticed a slight enlargement in the neck, which was followed by palpitation and exophthalmos. These symptoms continued, together with other characteristic symptoms. Six years later he was admitted to hospital where under treatment he improved, but on returning home he relapsed and was again admitted to hospital, when Sir William Stokes was asked to see him Operation was decided upon and a central tumour of the size of a Tangerine orange was removed, together with part of one lobe. In a few weeks there was marked alleviation of all the symptoms and the patient ultimately recovered. Two years after the operation there had been no recurrence of the symptoms.

My own experience is confined to two cases. In the first the patient was very ill, palpitation and dyspnœic attacks being the main symptoms. As she continued to get worse operation was decided upon and the right lobe of the enlarged thyroid gland was removed. The patient got much better and all the symptoms were greatly relieved, but there are still (it is now eight years since the operation) symptoms of the disease. The other case was much less severe. The symptoms, however, did not yield to medical treatment, and as there was a unilateral swelling operation was decided upon. The swelling proved to be due to an adenoma which was excised. The symptoms completely disappeared; indeed, the tremors had gone the day after operation. On microscopical examination the adenoma was seen to have undergone hypertrophic changes. Great improvement in Graves's disease after removal of an adenoma has been noticed before. Murray records, too, a case in which the symptoms almost completely disappeared after drainage of a cyst in a goitre. In the present case the adenoma was found to have undergone the usual changes seen in Graves's disease; the rest of the thyroid gland was little if at all enlarged. Many other cases very encouraging as to operation could be cited. Probably the lesson to be learnt from the fatal cases is not that operations should not be performed, but that they should be performed earlier.

THE SURGICAL TREATMENT OF CHRONIC ULCER OF THE STOMACH.[1]

By A. W. MAYO ROBSON, F.R.C.S. ENG.,
SENIOR SURGEON TO THE GENERAL INFIRMARY, LEEDS; EMERITUS PROFESSOR OF SURGERY IN THE YORKSHIRE COLLEGE OF THE VICTORIA UNIVERSITY.

THE treatment of gastric ulcer is at first essentially medical and when properly carried out and for a sufficient length of time it is usually completely successful. Leube says that one-half or three-fourths of all cases will be cured by four or five weeks of treatment, but that if not cured in that time they will not be cured by medical treatment alone—a view which, I feel sure, is a true one. Unfortunately, however, in many cases treatment is stopped as soon as relief from pain is obtained and long before the ulcer is healed. In some cases this may be due to the uncertainty of diagnosis or from the impatience of the patient; perhaps in others to ignorance as to how long it takes to secure the healing of a gastric ulcer. The earlier in the course of the disease that radical treatment in the shape of dieting and rest is adopted, the less prolonged will the treatment need to be and the more likely is it to be effectual. But probably the very earliest time that a patient should be allowed to be out of bed is from a fortnight to a month after all pain and tenderness have disappeared Failing this thorough treatment relapses will be certain to occur and in the long run complications will supervene or the ulcer will become chronic, when, though medical treatment may relieve in some cases, cure can be looked for in the greater number only by surgical methods.

In considering the treatment of ulcer of the stomach it is useful to hold in view the course of an ulcer of the leg, which directly the healing stage has arrived becomes free from pain; but this indicates neither that healing is completed nor that care may cease, and should treatment be abandoned and the ulcer become chronic, though it may even then be painless, it is at any time liable to become inflamed or to extend; moreover, the surrounding tissues become infiltrated with lymph, which tends to organise, and this in a hollow viscus soon ends in stricture, as in the leg it tends to drag on the surrounding skin and produce constriction of the limb

The surgical treatment of intractable or relapsing gastric ulcer is in the greater number of cases the only satisfactory method of dealing with these refractory cases, and operation should be resorted to at a much earlier period than has hitherto been the custom, and always before the patient is so far reduced by pain and starvation or the supervention of serious complications that weakness and anæmia render any operative procedure hazardous. Ulcer of the stomach is a much more serious matter than is generally recognised, for according to various authors it has a mortality, when treated by general and medical means only, of from 20 to 50 per cent. Dr Einhorn, in his well-known work on Diseases of the Stomach (p. 223), says: "At first glance it would appear that the prognosis of gastric ulcer is quite good, especially nowadays, when the diagnosis of the affection is usually made at an early date" However, if we take into consideration the tabulated statistics given by Debove and Rémond (p. 276) in reference to the outcome of all cases of ulcer we become more careful in our favourable predictions. This table gives in 100 cases of ulcer: perfect cure, 50; perforations and peritonitis, 13; foudroyant hæmatemesis, five; pulmonary tuberculosis, 20; inanition, five; and different complications, seven The excuses of a few years ago that there is a great responsibility in recommending surgical treatment either from the uncertainties of diagnosis or from the risk of operation can no longer avail, since the diagnosis of gastric ulcer, thanks to the researches of Ewald, Hemmeter, Einhorn, and others, has been brought to a greater state of perfection than exists in many other obscure diseases, where radical treatment has to be adopted on much more slender foundations; and fortunately, now that the mortality in operations for simple diseases of the stomach, excluding perforation and hæmorrhage, has been reduced in the hands of experienced surgeons to 5, or even less than 5, per cent., the great risks of surgical treatment cannot be advanced even by its most ardent opponents.

---

[1] A paper read before the American Surgical Association on May 5th, 1901.

We have to consider, not only the treatment of gastric ulcer itself, but also that of its complications, which are no less numerous than serious, and before describing each separately it may be as well to name them collectively. They are as follows: (1) local peritonitis or perigastritis ending in adhesions; (2) local peritonitis ending in suppuration and a localised abscess; (3) subphrenic abscess; (4) abscess of the liver, pancreas, or spleen; (5) fistula between the stomach or pylorus and adjoining organs or with the surface of the body; (6) acute perforation of the stomach wall; (7) general peritonitis; (8) hæmatemesis and melæna; (9) dilatation of the stomach; (10) tumour of the stomach or the pylorus; (11) cicatricial stenosis of the pylorus; (12) hour glass stomach; (13) spasm of the pylorus producing intermittent narrowing (Reichmann's disease); (14) atonic motor deficiency; (15) severe gastralgia; (16) persistent vomiting; (17) tetany; (18) acute or chronic pancreatitis; (19) profound anæmia resembling the pernicious form; (20) pressure on, or stricture of, the bile-ducts with jaundice; (21) catarrh of the gall-bladder from adhesions producing attacks like those of cholelithiasis; (22) great loss of flesh and strength ending in phthisis; and (23) cancer secondary to ulcer ("ulcus carcinomatosum").

We are not prepared to subscribe fully to the views of Tricomi,[2] who draws a parallel between the treatment of hernia and that of ordinary gastric ulcer and proposes that as hernia is treated radically with success, so gastric ulcer should be treated radically by the performance of gastro-enterostomy. Heydenreich[3] argues: "The death-rate from all cases of gastric ulcer is from 25 to 30 per cent., but from gastro enterostomy only 16·2 per cent.; therefore, the operation has less danger than the disease." The question of medical *versus* surgical treatment in this class of cases is one, however, that can be much simplified by a careful study of statistics. At the time I delivered the Hunterian Lectures in March, 1900, I had been able to collect from various sources 188 operations on the stomach for gastric ulcer (excluding those for perforation and hæmorrhage) of which 157 recovered and 31 died, thus giving a mortality of 16 4 per cent. These included 34 personal cases.

Now, although the deaths from gastric ulcer medically treated averaged 25 per cent. and those from even the worst and most inveterate cases of ulcer when treated surgically only 16 per cent at the time of those lectures, yet the difference did not then appear so great as to make it desirable or prudent very strongly to advocate surgical treatment until the disease had become chronic or until serious complications had ensued. To-day, however, the facts are very materially altered by the all round improvement in operations on the stomach, and the contrast of 25 per cent of deaths in cases treated medically, and 5 per cent. as shown in our latest statistics in those treated surgically, in the worst and most complicated cases, is so striking that we feel it incumbent to urge most strongly that although cases of gastric ulcer should first be submitted to medical treatment, yet if such treatment fails to cure in a reasonable time, or if relapses occur on the resumption of solid food, then surgical should take the place of medical treatment, for it is unfair to the surgeon to hand over to him almost moribund cases, and it is unjust to the patients to persist in dosing them with medicine, or otherwise treating palliatively cases that can only be benefited or cured by surgical means.

Operative treatment.—Before the abdomen is opened it is quite impossible to say what operation or operations will be required and the surgeon must be prepared to adapt himself to circumstances on discovering the position of the ulcer and the conditions associated with it, especially as to the presence or absence of adhesions and other complications. Any one of the following operations, or a combination of one or more, may be called for in each individual case: exploratory gastrotomy; gastro-enterostomy to secure physiological rest to the stomach and relieve the hyperchlorhydria, or in other cases to short circuit a stenosis; excision of the ulcer; pylorectomy; pyloroplasty; gastroplasty; gastrostomy; gastrolysis; pylorodiosis; and gastroplication.

The preparation of the patient—It has been the custom with many surgeons to put stomach patients through a long course of preliminary treatment, such as frequent lavage of the stomach and abstention from food before operation. This, as a rule, is quite unnecessary and certainly inadvisable in the greater number of cases, first because the treatment is depressing and debilitating in the case of patients already exhausted by a long illness; secondly, as proved by Dr. Harvey Cushing's bacteriological investigations, the stomach contents speedily become aseptic if the mouth be cleansed and aseptic foods administered; and, thirdly, as proved by ample clinical experience, elaborate preliminary treatment is unnecessary to success. If the stomach is greatly dilated and the contents are foul, then lavage with simple boiled water night and morning is adopted for two days before operation. The careful cleansing of the mouth and teeth and the administration of foods sterilised by boiling is advisable. The last meal is given the night before, about 12 hours; the stomach is washed out about two hours and a nutrient enema given about an hour before operation. In other cases no lavage is adopted, but the same care is exercised in cleansing the mouth, giving sterilised food, and administering a nutrient enema consisting of one ounce of brandy, one ounce of liquid peptonoids, and 10 ounces of normal saline solution. Every patient is enveloped in a suit of cotton wool made by the nurse out of Gamgee tissue, and each has an injection of 10 minims of liquor strychninæ, B.P., administered subcutaneously before the operation is begun. The preparation of the skin and other aseptic details of the operation differ in no respect from those observed in operations generally.

Exploratory gastrotomy, or opening the stomach by a free incision in its anterior wall, is an operation occasionally called for in the surgical treatment of ulcer: (1) in order to verify the diagnosis of ulcer when there is so much thickening of the stomach walls as to suggest the presence of cancer; (2) when, although the symptoms have pointed to ulcer as the cause of the gastric trouble, the stomach on exposure betrays no evidence of puckering or other characteristic signs, and when in order to verify the diagnosis and ascertain what is best to be done it is felt desirable to examine the interior of the organ; (3) in certain cases of gastrorrhagia it is desirable to perform exploratory gastrotomy in order to find and to ligature the bleeding vessels or to otherwise arrest the hæmorrhage; and (4) it necessarily forms part of any operation for the excision of ulcer of the stomach. It is not necessary for me here to enter into any detailed description of the operation, which must be so familiar to all my hearers and which requires to be varied according to the object in view. The following are examples of exploratory gastrotomy for ulcer.

CASE 1—The patient was a man, aged 38 years There were symptoms of chronic ulcer extending over several years. On exposure of the stomach there was no evidence on the surface to indicate the accuracy of diagnosis Exploratory gastrotomy was performed. A large ulcer, one and a half inches by three inches, on the posterior wall of the stomach was discovered. Posterior gastro-enterostomy was performed and recovery ensued.

CASE 2—This was a case of acute gastrorrhagia There was no evidence on exposing the stomach. Exploratory gastrotomy was performed. Numerous bleeding ulcers were seen, two of which were bleeding freely and were ligatured *en masse*. Gastro-enterostomy was performed and recovery ensued.

Excision of the ulcer is, as a rule, unnecessary, but not always to be avoided, as in some cases of bleeding ulcer and in others where the thickening and induration render it difficult to decide on the absence of malignant disease. This was the case in a man, aged 54 years, on whom I operated in 1891, when finding the pylorus the seat of diffuse induration excision of the whole indurated area was performed successfully. A careful examination of the removed mass showed that the growth was inflammatory around a chronic ulcer. In another middle-aged man where the diffuse induration was suggestive of cancer the pylorus was opened and a deep ulcer on the posterior wall successfully excised, the edges of the original incision as well as the margins of the posterior wound being brought together in a direction transverse to the axis of the pylorus over a bone bobbin, as in the modified operation of gastro enterostomy. Rydygier prefers excision of the ulcer to gastro enterostomy, because he believes that carcinoma not infrequently develops in the scar of an old ulcer It is impracticable to give any specific description of the operation of excision of an ulcer, seeing that the procedure will vary according to its size and position. After excision of an ulcer the bleeding from large vessels must be controlled by ligature, but the oozing from the smaller vessels will be stopped readily by the continuous suture employed to bring together the edges of the wound. If the excision involve the serous coat a Lembert's continuous stitch with a silk or celluloid suture will be necessary. Should an excision have been near the pylorus the line of suture must be placed transversely to the axis of the canal so as to avoid stricture. The following cases are examples of gastric ulcers treated by excision.

---

[2] Riforma Medica, 1899

[3] Semaine Medicale, Feb 2nd, 1898

CASE 3. *Ulcer of the pylorus, stenosis, dilatation of the stomach, excision of the ulcer and pyloroplasty.*—A man, aged 38 years, was admitted to the Leeds Infirmary with the history of stomach trouble for 13 years. Pain after food and vomiting were the initial symptoms. Severe hæmatemesis occurred six years after the commencement of symptoms. Great loss of flesh and weakness were followed by inability to work, although he had stomach lavage and other appropriate treatment. On admission the patient was very thin and profoundly weak. He weighed 8 stones. A swelling could be felt below the right costal margin. The stomach reached three inches below the umbilicus and there was visible peristalsis. Free HCl was present. Operation was performed on Nov. 15th, 1900. The pylorus was found much thickened, forming a nodular swelling adherent to the gall-bladder and liver and to the abdominal wall by omental adhesions. After separating the adhesions a small perforation was discovered in front of the pylorus, evidently the site of a perforation which his medical man, who was present, said he remembered occurring some months previously and which was then treated successfully by rest and rectal feeding. The pylorus was freely laid open and found to be the site of a round perforating ulcer in front and another on the posterior wall—the latter had perforated into the substance of the pancreas; both were excised, thus practically constituting a pylorectomy. The edges of the posterior wound were brought together transversely to the axis of the stomach. The anterior wound was prolonged into the duodenum and stomach and its edges were brought together transversely to the axis of the stomach over the bone bobbin, thus leaving a capacious channel between the stomach and duodenum surrounded by healthy mucous membrane. Recovery was uninterrupted and he was discharged on Dec. 12th, weighing 8 stones 5 pounds. On Jan. 9th, 1901, he returned to report himself well and then weighed 9 stones 11 pounds.

CASE 4. *Pyloric ulcer treated by excision of the ulcer and pyloroplasty.*—The patient was a woman, aged 44 years. She had been well till two years ago when she had colic and loss of flesh. Under treatment she recovered and regained some of her lost weight. On Sept. 15th, 1897, there was a recurrence of attacks similar to that of a year before, but with pain at the right side over the pylorus. There were loss of weight and of strength. The patient had for some time been an invalid and had been continuously under medical treatment for months. Her weight was 5 stones 11 pounds. There was visible peristalsis towards the pylorus which was fixed to the gall-bladder, but no pain or tenderness. The liver was two inches below the costal margin, but not nodular; no jaundice was present. Operation was performed on July 23rd, 1898. An ulcer at the pylorus was found adherent to the liver which formed its floor. There was stenosis of the pylorus. Pyloroplasty was performed after excision of the ulcer, the opening being sutured transversely over a bone bobbin. On Dec. 3rd the patient had gained 1 stone 8 pounds in weight. There was no trouble in digesting anything. On Dec. 23rd, 1899, she was reported as "very well" and of normal weight.

The operation for pylorectomy for ulceration of the pylorus may be conveniently mentioned under the heading of excision of ulcer. Dr. Rodman[4] has collected from literature and personal correspondence detailed reports of 40 pylorectomies, partial gastrectomies, and excisions for ulcer, with six deaths. This includes cases since 1881, but the later operations under improved technique contrast favourably with the earlier ones. I have myself performed the operation of excision of gastric ulcer six times, all the patients recovering. Nevertheless, the mortality after excision will probably always be higher than the more simple operation of gastro-enterostomy. The more severe and radical operation should therefore be reserved for cases that are not suitable for the less severe operation or in which the suspicion of cancerous degeneration is entertained and cannot be disproved on naked-eye inspection. The following case is an example.

CASE 5. *Tumour of the pylorus and chronic hæmatemesis due to ulcer.*—In 1891 I was asked by a medical friend to see a man, aged 54 years, who for six months had suffered from pain coming on an hour after food and more recently from vomiting blood of coffee-ground character in considerable quantities, so that he was not only reduced in flesh and strength but had also been rendered profoundly anæmic by the loss of blood. A tumour of the pylorus could be easily felt and the stomach was markedly dilated. As he was rapidly losing ground an operation was performed and the pylorus was found to be thickened and nodular, with adhesions to the liver and omentum. After separating the adhesions the pylorus was excised and the opening of the duodenum was fixed to the opening in the stomach by means of two lines of sutures without the use of a bobbin, the rest of the stomach aperture being closed by a double layer of sutures. The tumour proved to be inflammatory around an open ulcer which had been the source of the hæmorrhage. The bleeding was not repeated and the patient rapidly gained flesh and returned home within the month.

The subsequent history of this case is interesting on account of cicatricial contraction of the new pyloric aperture which led to the invention and employment of a decalcified bone bobbin to act as a temporary splint over which to apply the sutures and thus to secure a large aperture which has little tendency to contract.

Gastro-enterostomy, in the absence of special complications, is the operation to be relied on in the treatment of ulcer of the stomach. It acts by securing physiological rest by means of drainage, thus allowing the ulcer to heal without being subjected to the irritation of acid secretion, accumulation of food, or frequent stomach movement. It also, while remedying the hyperchlorhydria, relieves pyloric spasm and while preventing stagnation of fermenting fluids materially diminishes gastric dilatation. The posterior operation is the one I personally prefer, the junction of the posterior wall of the stomach with the first part of the jejunum being effected by two continuous sutures with or without a decalcified bone bobbin. The use of a bone bobbin not only secures an ample and immediately patent opening between the two viscera for the passage of the stomach contents, but protects the line of union from the irritation of the stomach contents. The whole operation can be easily completed in half an hour, and it may even be done in half the time. Along with my colleague, Mr. Moynihan, I have given my full experience of the operation and of stomach surgery in general in book form, now in the hands of the publishers. Our experience with the posterior operation has been very favourable, not only in the rate of recovery of the patients, but in the smoothness of the recovery, many of the patients recovering without even once vomiting, and only on two occasions have we seen regurgitant vomiting of bile, which in the anterior operation is much more frequently seen and at times becomes serious or even leads to a fatal issue. We have performed the posterior operation on 40 patients with two deaths, or an average mortality of 5 per cent., but as the deaths were from more or less accidental causes which should be avoided in the future, and occurred respectively on the tenth and eleventh days after operation, during the whole of which time the patients had been able to take and to assimilate food, the gastro-enterostomy *per se* cannot be blamed for the result, which might under similar circumstances have occurred after any operation.

Dr. Fantino[5] examined Professor Carle's cases of gastro-enterostomy as regards the following points: (1) changes in the peristalsis of the stomach; (2) the ability or non-ability of the new sphincters to close the outlet; (3) the capacity of the stomach; and (4) the secretion of hydrochloric acid. In the cases examined the operation immediately improved the peristaltic power of the stomach, though it did not render it normal. The stomach could generally empty itself, but did so gradually. Systematic examinations of the stomach contents were made after test meals, &c., and they showed that after an irregular period the stomach regained completely its power of emptying itself; in fact, as a rule, after gastro-enterostomy the stomach will be found practically empty in from three to five hours after a meal. Generally, it was found that the stomach decreased in size soon after gastro-enterostomy, so that the formerly distended organ became normal in size. Examination of the stomach by means of distension with carbonic acid and by other methods showed that a sphincter was developed at the new opening and that its power increased with time. The secretion of hydrochloric acid after operation was studied. In cases where there was formerly hyperacidity this condition was lost, and though the degree of acidity in any individual case varied from time to time, yet these variations did not depart from physiological limits. In the same examinations it was found that regurgitation of bile into the stomach took place, but it was of no importance so long as the outlet from the organ was sufficient. In cases of hyperacidity and anacidity there was no change in the gastric juice after operation, showing clearly that this condition is not dependent on obstruction but on previous changes in the mucous membranes, these changes being probably in the nature of an atrophy of the peptogastric glands. The following cases are given as examples of the treatment of gastric ulcer by gastro-enterostomy.

---

[4] Philadelphia Medical Journal, June 9th, 1900.

[5] Archiv für Klinische Chirurgie, Band xlix., pp. 1 and 2.

CASE 6.—The patient was a woman, aged 32 years. Pyloroplasty was performed during active ulceration of the pylorus in December, 1895. There was great relief for a time, but later there were recurrence of dilatation, vomiting, pain, and other symptoms. There was very considerable loss of flesh. The patient was thin and anæmic; the pulse was feeble and rapid; there was marked dilatation, the stomach reaching well below the umbilicus. Anterior gastro-enterostomy was performed on Oct. 4th, 1988 (a bone bobbin was employed) In October, 1899, the patient was well and active. In February, 1900, she had gained 1 stone 10 pounds.

CASE 7.—The patient was a man, aged 28 years, who had a pyloric ulcer and a tumour of the pylorus. Two years ago he weighed 12 stones 12 pounds; he now weighed 9 stones 6 pounds. He had pain two hours after food. For the last two months there had been vomiting on an average five times a week; twice there had been coffee-ground vomit There was enormous dilatation of the stomach. The pyloric tumour was moveable and there was visible peristalsis. Operation was performed on August 4th, 1899. There was a large mass at the pylorus, evidently thickening due to active ulceration; the glands were large but not matted. Anterior gastro-enterostomy was performed (a bone bobbin was used) On the 27th there was good recovery and the patient weighed 9 stones 7 pounds On Sept. 9th the patient weighed 10 stones 13 pounds and could eat anything. He was well in 1901.

CASE 8.—The patient was a man, aged 31 years, who had an extensive ulceration of the stomach with a large tumour. He had suffered from dyspepsia for 17 years, which had been more severe during the last 20 months. 16 months ago vomiting recurred and from the outset large quantities were ejected but never containing blood. There was recurrence occasionally of similar attacks, which were always relieved by treatment. In December, 1897, the stomach reached the pubes and visible peristalsis was seen. Relief followed dieting and lavage till March, 1898, since which time pain had been almost constant. The pain was not materially worse after food, nor was it relieved by vomiting. The loss of weight was from 10 stones to 8 stones 6½ pounds. There was great feebleness. Operation was performed on May 6th, 1898. There was a large irregular tumour at the pylorus and along the lesser curvature, but the glands, though large, were discrete. Anterior gastro enterostomy was performed, a bone bobbin being employed The patient was 8 stones in weight when he left the home on June 7th. On August 17th he weighed 9 stones 3 pounds. A letter, dated Feb. 12th, 1900, says: "My health continues perfect. I have not lost a day's work through illness since I recovered."

CASE 9.—A woman, aged 32 years, was sent to me with a history of stomach symptoms extending over several years. She had had hæmatemesis in 1892 and in 1896, since which time she had suffered from flatulency and pain after food. For two years epigastric pain was constant, but it was increased by taking food. A year ago she had vomited daily; then she had relief for a time, but for some months only milk could be retained. Epigastric tenderness was well marked and on distending the stomach with CO$_2$ it reached half an inch below the umbilicus and far over to the right of the middle line. On Oct. 5th, 1900, posterior gastro-enterostomy was performed, a bone bobbin being employed. Recovery was uninterrupted. The patient returned home within the month, taking solid food without any discomfort and gaining flesh. On Nov. 8th Dr. A—— wrote: "I have seen Miss —— since her return and there is every reason to be pleased with her condition. She has lost all her pain and is taking food well. Allow me to thank you for her restoration to comparative health." In February, 1901, her weight was 8 stones 6 pounds; at the time of operation it was 6 stones 12 pounds.

CASE 10.—The patient was a man, aged 52 years, who began to suffer in 1897 from symptoms of ulcer of the stomach, which were relieved by restricted diet and general treatment, but in July, 1899, the symptoms returned with great loss of flesh and strength. Well-marked dilatation of the stomach was discovered and operative treatment was advised. Lavage and other treatment were carried out in London and in Scotland, but without material improvement When first seen by me there was visible peristalsis with well-marked stomach splash and a tender spot under the right costal margin. Although tall the patient only weighed 8 stones 10 pounds and he was extremely weak and pallid Operation was performed on Oct. 12th, 1900. Hour glass stomach was found, but the stricture was not extreme There was puckering on the anterior wall of the stomach with well-marked thickening. Free HCl was discovered in the stomach contents. Posterior gastro-enterostomy was performed. Good recovery followed. On March 4th, 1901, the patient wrote saying: "I am pleased to be able to tell you that I have had no return of my former complaint and that I eat, drink, and sleep well. Have got back to my former weight."

CASE 11.—The patient was a man, aged 45 years, residing at Batley. He gave the history of pain about an hour after food, with great loss of flesh, which he had experienced for two years. For nine months he had vomited every day or every second day a large quantity of yeasty material but no blood, though he was very anæmic. There were well marked signs of dilatation, with tenderness over the pylorus. Operation was performed on June 12th, 1900. On opening the abdomen the pylorus was found to be much thickened and adherent, forming a tumour, and through the centre of the mass a No. 10 catheter only could be passed over a roughened, ulcerated surface. A posterior gastro-enterostomy was performed. With regard to the after history an uninterrupted recovery followed. Food was begun on the second day and solids could be taken in the second week without pain. The patient rapidly gained flesh and strength and was now well.

The following case illustrates the value of gastro-enterostomy in acute hæmatemesis.

CASE 12. *Chronic ulcers; hæmatemesis; gastro-enterostomy.*—A farmer residing in Essex was sent to me on March 26th by Dr. A. J. T. White who kindly furnished the following history. "I first saw Mr. —— five years ago; he had then occasional pain in the epigastrium, with much flatulence and at times vomiting. This kept on at intervals more or less for three years. Eighteen months Dr G—— saw him with me. At that time instead of his former weight of 16 stones he only turned the scale at 12 stones. He then improved gradually for about three months and gained about a stone in weight. Six months later, or about a year ago, he, while out driving, had some abdominal pain and vomited considerable quantities of blood. He continued being sick and suffering for some time with slight hæmatemesis and melæna, but again improved. About three or four months ago he got worse and has been vomiting and suffering considerable pain on and off ever since. I have very little doubt but that this original trouble was gastric ulcer, but my fear now is lest malignant ulceration should have supervened, and some time ago I asked him to see you. He could not go then as he had various business matters to set right, but now is willing. He is a man of iron will and constitution though terribly pulled down." On the patient's arrival in Leeds he went direct to a surgical home, his weight then being 10 stones. He was then suffering severe pain but was able to take a little milk, which was, in fact, the only form of food which he had been able to digest for a long time. Within a few hours he was seized with violent hæmatemesis and vomited five pints of clots and dark fluid mixed with mucus. Rectal feeding was at once adopted and an ice-bag was applied to the epigastrium. The next day much coffee-ground material was vomited and on the third day the bleeding ceased. An operation, which was clearly demanded, was arranged for March 22nd, but on the night of the 21st he again vomited two pewtersful of pure dark blood which clotted soon after being vomited. The stomach was quite empty of food, as after the night of his admission feeding had been entirely rectal. He was now extremely weak, but as the vomiting and bleeding were continuing Dr. White agreed with me that it would be better not to postpone operation, for he was rapidly losing ground and clearly could not stand a greater loss. An hour before operation he vomited blood freely again. On the morning of the 22nd, on opening the abdomen, the lesser curvature of the stomach was found to be much indurated, forming a tumour. There was also much puckering of the surface of the stomach and the glands in the greater and lesser omentum were enlarged but discrete. A posterior gastro-enterostomy was performed, a bone bobbin being used. In order to guard against shock he was enveloped in cotton wool, had 10 minims of liquor strychninæ (B.P.) given subcutaneously before operation, and had a pint of saline fluid with an ounce of brandy given into the bowel. Immediately after operation, which was finished within the half hour, nearly a pint of saline fluid was injected into the subcutaneous tissues of the axilla and another pint, together with an ounce of brandy, was administered per rectum. During the day three injections of five minims of liquor strychninæ were given and the rectal enemata were repeated. Very little shock was felt, and the after-progress was uninterrupted The bowels were moved on the third day, and the wound was dressed and found healed on the tenth. No more blood was parted with, and stomach feeding was begun four days after operation. By the end of the week he was taking as much as five pints of fluid nourishment in the 24 hours He said he had never had any pain since the operation and was feeling better than he had done for a long time. He had lost all the acid eructations, the constant burning at the epigastrium, and the flatulency. He returned home within the month very well, and, as showing the state of his digestion, he had gained 4 pounds in the week before he left the surgical home.

Pyloroplasty as a curative measure in this class of cases has certain very definite limitations, but where it is feasible it is a method of great utility which can be performed rapidly and with very little exposure of viscera. Pyloroplasty, if the pylorus be stenosed, free from extensive adhesions, easily drawn forward and not actively ulcerating, is a simple and short operation, and in quite a number of cases of both gastric and pyloric ulcer I have found it to answer well It must not be relied on, however, where active ulceration of the pylorus itself is found, unless at the same time the ulcer be completely excised; otherwise cicatricial contraction will follow. It acts in the same way as does gastro-enterostomy by affording a free exit to the stomach contents and thus securing physiological rest to the stomach. The histories to be related exemplify the complete success which attended the operation in appropriate cases and also the disappointment which followed its employment in one of the earlier examples which owing to inexperience was not properly selected.

Professor Carle and Professor Fantino[6] compare the operation of gastro-enterostomy and pyloroplasty. Out of 14 cases in which the latter operation was performed only one died. The results of pyloroplasty, as regards function, have been little noticed in literature. To the author's 14 cases three may be added where the operation was by tearing, but the results were the same. In all the 17 cases the results were excellent, and in 13 of them they were perfect and permanent, as it is now from three to seven years since operation. In these the condition of the secretions and of the peristaltic power of the stomach was the same as after gastro-enterostomy for non-malignant stenosis Diminution in the size of the stomach was not so marked as would be expected in the presence of such remarkable recovery of the general health and of the stomach's power to empty itself. In all cases, with one exception, the gastric capacity was more or less diminished, but in no case did it become normal in size. A few cases must be excepted where operation was performed for hyperacidity with gastric atony. In these, four or five months after operation, there were delayed evacuation of the stomach and a feeling of weight. Although the general improvement was considerable, yet the authors were persuaded that a posterior gastro-enterostomy would have given better results. In one of the cases a subsequent gastro-enterostomy gave a perfect recovery. In cases where there was hyperacidity before the operation there was a rapid return to the normal, but *not to below* normal, as was found after gastro-enterostomy. The authors believe that the rapid and great diminution in hydrochloric acid after the latter operation is due to the very rapid evacuation of the stomach after a meal, and they do not deny the possible influence of a regurgitation of bile into the stomach Both these conditions are absent after pyloroplasty, hence the difference in secretion

In cases of hyperacidity and anacidity operation produced no change in this particular and yet health was restored. The results of pyloroplasty may be summarised: (1) regurgitation of bile into the stomach is prevented; (2) secretion of hydrochloric acid when it has been excessive becomes normal; (3) if the secretion of hydrochloric acid has been diminished or absent before operation it remains *in statu quo* after operation; (4) if there has been primary gastric atony peristalsis is but little improved; (5) this function improves rapidly or reaches perfection if the muscular contractility has been normal or increased, and when the obstruction was due to fibrous stenosis or pyloric spasm; (6) in all such cases evacuation of the stomach is accomplished in its physiological period (only in rare cases, and these only in the first months, after operation may it be delayed); (7) the capacity of the stomach always decreases but rarely becomes as small as normal; and (8) the pylorus recovers tone.

Points of difference between the results of pyloroplasty and gastro enterostomy are: (1) the absence of regurgitation of bile and hence the absence of any possible biliary influence on the gastric secretions; (2) the evacuation of the stomach is not accelerated, hence the difficulty the stomach has in reaching its normal size; and (3) the slight or negative result obtained by pyloroplasty in obstruction from primary gastric atony compared to the positive results from posterior gastro enterostomy.

Pyloroplasty is too dangerous in cases where there is extensive induration of the tissues, much peripyloritis and adhesions to liver, gall bladder, colon, &c., and in cases of duodenal stenosis It is indicated in cases of spasmodic stenosis and in slight annular stenosis from ulceration accompanied by muscular hypertrophy.

In the Hunterian Lectures I collected 318 cases of pyloroplasty from all sources, of which 269 recovered, which equals a mortality of 15·4 per cent; this included 14 cases of the lecturer's, of which 12 recovered—a mortality of 14·2 per cent. As in the earlier operations many were performed on cases that would be now treated by gastro-enterostomy the mortality in properly selected cases should not exceed 5 per cent. at the outside estimate, and of the 12 cases I have operated on since 1897 there is no fatality to record.

CASE 13—The patient was a woman, aged 29 years. She had had "spasms" for 10 years, but the pain was more on the left side She was attacked two or three times a week; the attacks would start without apparent reason and last an hour or two but they might persist for 24 hours The patient was relieved by vomiting She had severe cramps in the legs and a loss of 2 stones in weight; there was no jaundice but marked constipation The right rectus was rigid; there was no rigidity, but tenderness to the left. Dilatation of the stomach was well marked on Nov. 22nd, 1895 She was relieved under treatment which was followed by a relapse; she was now vomiting daily Her weight was 9 stones. The operation was as follows The adhesions of the pylorus were separated There were active ulceration at the pylorus and a tight stricture. Pyloroplasty was performed, a bone bobbin being used On July 24th, 1896, her weight was 9 stones 5 pounds and she was very much better. She had a relapse in 1898 possibly from recurrence of the ulceration. I then performed gastro enterostomy She was quite well in 1900 and her former weight was fully regained

CASE 14—The patient, a man aged 52 years, was seen on Jan 13th, 1897. He had an ulcer of the pylorus with stricture. He had had bad health for 20 years with dyspepsia which had become worse since he had enteric fever nine years before The last two years he had been much worse; he had pain, sickness, and vomiting from two to three hours after meals relieved by vomiting of large amounts. He never vomited blood. There was loss of flesh. His weight was 9 stones 3 pounds. There were emaciation and dilatation of the stomach There was no tumour. An operation for the stricture of the pylorus (pyloroplasty) was performed (a bone bobbin being used) On Sept. 19th, 1898, the patient's medical attendant writes: "For some time little improvement; stomach now works well. Looks better than I have ever seen him." He was well in February, 1901, and had gained his normal weight.

---

[6] Loc. cit.

CASE 15.—The patient was a woman, aged 46 years, who was seen on March 18th, 1897. She had stricture with active ulceration at the pylorus. She had had gastralgia for several years which was relieved by food. In November, 1894, she vomited a dark fluid; since then she had had frequent vomiting, the longest interval being two or three weeks. There was pain in the stomach, accompanied by a hard lump and often followed by vomiting. There was great loss of flesh and strength. Operation was as follows. Pyloroplasty for contraction and thickening of the pylorus; the passage only admitted a No. 2 catheter. Good recovery ensued and she was well in 1899. There was considerable gain in weight.

CASE 16.—The patient was a man, aged 39 years, who was seen on May 24th, 1897. A letter, dated May 13th, 1897, says: "During the last 18 months I have suffered much pain which has caused me to be bedfast for two, three, or four weeks at a time, and it has required another month or more for me to gain strength enough to move about." 18 months ago he had epigastric pain several hours after food, which was relieved by vomiting. Since then his health had never been good; three and a half months ago he had a similar attack, very severe, with collapse. The vomit contained blood. 14 days ago he had another severe attack. His normal weight was 10 stones 10 pounds; it was now 9 stones 3½ pounds. His stomach had been "weak" since childhood. There was marked dilatation. There was no tumour. On operating it was found that there was a deep ulcer at the pylorus, the extreme stricture barely admitting the ordinary director. Pyloroplasty was performed, a bone bobbin being used. There was complete recovery from operation and the patient rapidly regained normal weight. A letter dated Feb. 16th, 1898, says: "I thought you would like to know that I am able to attend business as usual, and have done so without interruption since July 19th, 1897."

CASE 17.—The patient was a woman, aged 46 years, who was seen on July 12th, 1897. She was said to have had ulcer of the stomach 20 years ago. Since then she had been subject to attacks of pain from half an hour to two hours after food and sometimes continuous pain. For three or four months she had been vomiting three times a day and had lost a stone in weight in that time. She was leading the life of an invalid and for a long period was under medical treatment without benefit. There were dilatation of the stomach, visible peristalsis, and tenderness over the stomach, especially at the pylorus. No tumour could be felt. On operating it was found that the stomach was much dilated; there was thickening at the pylorus. Pyloroplasty was performed, a bone bobbin being used. Good recovery ensued. On Jan. 8th, 1898, the patient weighed 11 stones, a gain of over two stones.

CASE 18.—The patient was a man, aged 23 years, who was seen on July 27th, 1897. He had had vomiting and loss of flesh for two years. He once weighed 10 stones, but was now seven stones in weight. Dieting and lavage gave only temporary relief. There were emaciation, pallor, and dilatation of the stomach. There was no tumour. On operating it was found that the pylorus was much contracted; there was great hypertrophy; the walls were more than one-third of an inch thick. Pyloroplasty was performed, a bone bobbin being used. Good recovery ensued. On Dec. 12th, 1897, the patient's weight was 9 stones 13 pounds and he was well.

CASE 19.—The patient was a man, aged 52 years. He had suffered from indigestion for two years. This, however, had not interfered much with his general health till the previous Christmas, when the indigestion was accompanied every second day by acute pain and vomiting, coming on about two hours after food. The vomited matter was in large quantity, offensive, and sour, and at times coffee-ground in character. From this time the patient became extremely weak and pale and rapidly lost flesh to the extent of one and a half stones in five weeks. He had pain on pressure over the pylorus, but no distinct tumour was felt. There was marked dilatation of the stomach, and during the attacks of pain it could be felt to harden under the hand. On April 8th, 1895, the abdomen was opened by an incision in the middle line above the umbilicus, exposing the pylorus, which formed a distinct tumour adherent to, and under cover of, the liver, and which, after being freed from adhesions to surrounding structures, was found to be tightly strictured, so as only to admit the passage of a No. 12 catheter, the mucous membrane being extensively ulcerated and the walls thick and almost cartilaginous. The stricture was incised longitudinally and sutured transversely over a bone bobbin by a double row of sutures. The stomach was much dilated and atonic. Though the pyloric tumour gave rise at the moment to a suspicion of cancer there was no evidence of growth and the glands were not affected. On Oct. 30th, 1896, he called to report himself, looking robust and well. He had gained three stones in weight since his operation.

Gastroplasty is an operation that I have successfully employed in a number of cases of chronic ulcer leading to hour-glass stomach. It consists in making a longitudinal incision through the strictured part of the stomach and bringing the edges of the wound together transversely, thus obliterating the stricture. A convenient method of performing the operation is by the use of a large decalcified bone bobbin as described in the cases appended. If the strictured part of the stomach be actively ulcerating the ulcer must be excised at the same time, otherwise subsequent contraction may occur; or possibly the ulcer, already chronic, may persist and lead to a continuance of the symptoms; in such a case, if excision be impracticable, gastro-enterostomy must be performed, or if the pylorus be free from disease the operation of gastro-gastrostomy may be done in order to short-circuit the constriction. I have operated on 13 cases of hour-glass stomach due to chronic ulcer, with 12 recoveries. The following are good examples.

CASE 20.—The patient, a woman, aged 29 years, gave a four years' history of ulceration of the stomach, with vomiting of blood on one occasion, and the presence of melæna several times. As the pain was always easier when the patient was lying on the back an ulcer on the anterior surface of the stomach was diagnosed. This was confirmed at the operation, as the anterior wall of the stomach was so puckered that the cavity was divided into two, which were connected by a narrow channel, which was laid open by a free longitudinal incision in which was laid a large bone bobbin, the wound being then brought together transversely over it, thus leaving a channel of nearly two inches between the two cavities. The patient went home within the month and has completely recovered her health and strength.

CASE 21.—A man, aged 44 years, was admitted with well-marked dilatation of the stomach and a history of 20 years' gastric trouble. The constriction in this case was two and a half inches from the pylorus, the cavity between the stricture and the pylorus being very much smaller than the proximal one. The treatment was by gastroplasty over a large bone bobbin. Recovery was delayed by an attack of pleurisy, but the patient was now quite well and had gained rapidly in weight.

CASE 22. *Double hour-glass contraction of the stomach; gastroplasty and gastrolysis.*—The patient was a woman, aged 30 years. There had been attacks of pain and vomiting for 15 years. The pain began at the left side and passed to the epigastrium and through to the left subscapular region. There had been severe hæmatemesis 10 years before. Occasionally, both before and since, the vomit had been streaked with blood, which was sometimes "coffee-ground," but it had contained no large quantity of blood for eight years. The patient vomited large quantities at times and had lost flesh steadily for the last five years. There were dilatation of the stomach and peristalsis. No tumour could be felt but the pylorus was felt to harden from time to time. Operation was performed on June 6th, 1899, at a surgical home in Leeds. Double hour-glass contraction was discovered. One-third of the distance from the cardiac extremity adhesions caused a marked diminution of calibre, and two inches from the pylorus a contraction only admitting the tip of the little finger was found. The adhesions were divided and gastroplasty was performed, the wound being sutured over a large bone bobbin. The after-history was as follows. The patient made an uninterrupted recovery and in two months she had gained two stones in weight.

CASE 23. *Extreme hour-glass contraction; gastroplasty.*—The patient was a woman, aged 48 years. She had had constant indigestion and flatulence for 20 years, with a feeling of pulsation and tenderness at the epigastrium. There had been free hæmatemesis two years before and vomiting occasionally since, but lately the patient had ceased to take much solid food. She had noticed slime and blood in the motions, possibly due to constipation, which was extreme. There had been great loss of flesh. No tumour was present, but there were tenderness in the epigastrium and a well marked splash on succussion. Operation was performed on July 28th, 1899. There was extreme contraction one third of the way from the pylorus which just admitted the tip of the little finger. Gastroplasty was performed, a large bone bobbin being used. With regard to the after-history, the patient made a good recovery from the operation and the indigestion was relieved. There was an increase in weight of about a stone and improvement in the general health, but the stomach remained dilated and she continued anæmic and weak. This was at first thought to be due to bleeding from piles, but after they had been ligatured the weakness still continued, and, although there was no vomiting, flatulency and discomfort after meals with loss of appetite led to a suspicion of recurrence of disease in the stomach, which on being distended with CO_2 reached three inches below the umbilicus and on being washed out after a test meal showed impaired motility. On Jan. 24th, 1901, the abdomen was opened again through a median incision above the umbilicus when marked dilatation of the stomach was seen with contraction and some thickening over the pylorus, but where the hour glass contraction had been operated on 18 months previously it was interesting to note that neither scarring nor contraction were seen and it would have been impossible to tell by naked-eye appearances that anything had been done. A posterior gastro enterostomy was performed, a bone bobbin being employed. Recovery was uninterrupted and before the patient left the home at the end of the month she was taking ordinary food with relish and without any discomfort. She had then gained several pounds in weight.

Adhesions of the stomach to adjoining organs are so common in chronic stomach ulceration that gastrolysis or the detaching or otherwise treating bands and short adhesions to adjoining viscera or to the abdominal wall is performed in by far the greater number of cases. Such adhesions are frequently the only remnants of ulcers that have healed; at other times they have been left by perforation of the stomach wall by an ulcer, from the direful consequences of which they have saved the patient. In many cases they give rise to symptoms resembling ulcer, though the adhesions may be due to causes such as gall-stones outside the stomach itself; in such cases the operation of gastrolysis may be entirely curative. I have performed gastrolysis in 56 cases, all of which have recovered. The following case is given as an example.

CASE 24. *Gastrolysis for adhesions caused by chronic gastric ulcer.*—The patient was a woman, aged 42 years. 22 years ago she had symptoms of ulcer of the stomach; since then she had suffered from attacks of vomiting every week or two and from pain after food During the last three years the symptoms were more marked. Under medical treatment, with rest in bed, there was no improvement. The vomit was large in quantity and fermenting, sometimes containing blood. There was loss of weight to the extent of three stones. There was great tenderness over the stomach, especially to the left. The stomach was dilated, reaching below the umbilicus and well over to the right. At the operation on the anterior surface of the stomach the scar of an old ulcer was visible. The lesser curvature of the stomach was closely adherent to the liver. The pyloric extremity and the first part of the duodenum were attached to the gall-bladder and the cystic duct. The adhesions were separated and omentum interposed between the pylorus and gall-bladder. With regard to the after history, there was perfect recovery. On March 7th, 1900, the patient could eat anything without discomfort and was rapidly putting on flesh. She had gained 20 pounds since her operation. In March, 1901, she was quite well and had gained over two stones in weight.

Many other examples could be given where the benefits derived from operation have been quite as great.

Pylorodiosis, by which name is understood the operation of stretching the pyloric sphincter, either by means of the fingers invaginating the stomach wall (when it is known as "Hahn's operation") or by digital or instrumental stretching after having made an opening into the stomach (when it is known as "Loreta's operation") is a method of little practical value in the treatment of ulcer, and in some of the cases where I performed the operation, though the immediate results were good, relapses subsequently occurred. If performed by invagination without opening the stomach cavity it is an operation unattended by risk. It may possibly be of service in simple spasm of the pylorus, but I have not much faith in its effects being lasting.

It would be easy to give from my own experience examples of operations for all the complications of gastric ulcer that I have mentioned. I will, however, now only mention the results of my experience in operations for simple diseases of the stomach out of over 200 operations that I have performed. In 56 cases I have performed gastrolysis for the separation of adhesions which were producing disabling conditions, all the patients recovering. In 13 cases I have operated for hour-glass stomach due to ulcer, 12 of the patients recovering and being now well. In six cases I have operated for hæmatemesis, with five recoveries; in four cases for fistula due to chronic ulcer, all the patients recovering. Of the 18 cases in which I have performed pyloroplasty 16 have recovered, the two deaths being in the earlier cases, one being due to perforation in the second week after operation Of the posterior gastro-enterostomies previously referred to for simple diseases of the stomach, in 40 cases there were two deaths, both due to accidental causes, one being pneumonia in a phthisical patient Of the anterior gastro-enterostomies, including cases operated on 10 years ago, in 19 cases there were four deaths, one from an accident at the time of separation of a Murphy's button, one from shock in a patient very exhausted at the time of operation (Senn's plates being used), one from perforation of an ulcer on the twelfth day, when apparently convalescent, and one from peritonitis extending from the abdominal wound. Of the two gastroplications both recovered. Of the three cases of pylorodiosis all recovered. In eight operations for perforating gastric ulcer there were two deaths directly following on operation in cases treated when peritonitis was general. Of the six cases in which I directly excised a gastric ulcer or ulcers after opening the stomach by gastrotomy all recovered. Of one case of gastrotomy for the removal of foreign bodies and one for perforating wound of the abdomen with hæmatemesis both patients recovered. It will be seen that out of 177 operations for simple diseases of the stomach 165 patients recovered, or 93 2 per cent.

In the course of my paper reference has been made to a method which I have been systematically pursuing since 1891, not only in stomach operations, but in nearly all the operations which involved the making of an anastomotic opening between the hollow viscera—I mean the method of suture over a decalcified bone bobbin. I have adopted it in a very large number of cases and in a great variety of operations, and as a result of this extensive experience I am more than ever convinced that it is a reliable procedure which I can thoroughly recommend to others. It is more easily demonstrated than described, but it is really very simple and only involves two continuous sutures, one of chromicised catgut to unite the mucous margins of the two openings and one of celluloid thread to unite the serous surfaces about a quarter of an inch away from the new opening Pagenstecher's thread or spun celluloid has replaced silk in my practice, it being stronger, easily sterilised by boiling, and less absorbent. The bobbin, which is made for me by Messrs. Down Brothers of London in various sizes, from the small one required for cholecystenterostomy or for the union of the small viscera of children, to the large one employed for gastroplasty or for the end-to-end union of large intestine in the adult, is nothing more than a cylinder of decalcified bone with raised ends, which is placed in the new anastomotic opening, around which the sutures are applied.

The advantages claimed for the method are: (1) that it secures the opening being of the exact size intended and that there is no possibility of the passage being made too small by the drawing up of the sutures before the knots are tightened; (2) that it secures an immediately patent channel between the two anastomosed viscera; (3) that the bobbin protects for from 24 to 48 hours the new line of union from pressure and from the irritation of the visceral contents; (4) that it facilitates the application of the sutures and so adds to the expedition of union by sutures; (5) that no foreign material is left in the alimentary canal which may irritate or cause subsequent trouble, for the bobbin rapidly dissolves in the alimentary juices; and (6) that the method has now been proved by ample experience to be rapid, easy, efficient, and safe For stomach operations it is used in gastro enterostomy, in pyloroplasty, in gastroplasty, and in pylorectomy or partial gastrectomy, and in the latter operation it is unnecessary to use more than two continuous sutures for the whole operation.

In adopting the method it is convenient to begin with the serous suture, which is applied around the posterior half of the circle; the needle still threaded is then laid aside till the final stage; the openings into the viscera are then made and any redundant mucous membrane cut away; the mucous suture is now applied, uniting the posterior half of the circle; the bone bobbin is now inserted and the mucous suture continued around the anterior half-circle until it reaches the point where the mucous stitch was begun and where the loose end will be found, these two ends are then tied firmly; the serous suture previously laid aside is now picked up and continued around the anterior half-circle until the loose end of the celluloid thread is reached, when the two ends are tied firmly. The two hollow viscera are now united by a hollow cylinder of decalcified bone surrounded by two continuous threads, one uniting the mucous margins and one the serous surfaces, about a quarter or one-third of an inch away from the anastomotic opening.

Leeds.

ANALYSES OF
STOOLS AND URINE FROM EPILEPTIC PATIENTS UNDER TREATMENT WITH "BROMINOL" COMPARED WITH SIMILAR SPECIMENS FROM PATIENTS UNDER POTASSIUM BROMIDE.

BY W. HARRISON MARTINDALE, PH.D.

[THE instructive investigations by Dr. W. Harrison Martindale described in the following paper were undertaken at my suggestion. I had been unable to obtain the same satisfactory results from the administration of Merck's bromipin, or the equivalent English preparation, as have been described by German observers, and it seemed desirable to ascertain whether any considerable amount of the oil-compound escaped absorption. It will be seen that the results give no support to the suspicion, and they confirm the statements made regarding the presence of bromine in the urine after the administration of the compound. The clinical observations on its influence are not yet sufficiently numerous or decisive to justify their publication. Dr. Martindale's results, however, are complete and may wisely be made known.—W. R. GOWERS]

"Brominol" is the name given to an additive compound of bromine and sesame oil (the oil from seeds of *Sesamum orientale*, one of the cotton-seed oil group), containing 33⅓ per cent. of the halogen in chemical combination The dose of the preparation is from 10 to 60 grains (from 0 65 to 4 0 grammes) which is approximately equal to from five to 30 grains of potassium bromide. The compound forms a thick yellow oil, odourless and of oily taste. Its specific gravity is 1 0125. A 10 per cent. preparation is also made and a quarter-ounce dose of this equals approximately 20 grains of potassium bromide.

CHEMISTRY OF HALOGENISED FATS AND OILS.

The compound is an example of a halogenised fat and as these brominised and iodised bodies have been used both externally (an iodised oil has been recommended for inunction in rheumatism) and more recently have been administered internally, by rectal injection, hypodermically, and rubbed into the skin (e g., bromipin and iodipin, Merck) I give a short description of the chemistry of halogenised fats and oils before proceeding to the question of the relative absorption of alkaline bromides and ingestion of brominol. The reason for selecting sesame oil as a vehicle for the halogen is that it is tasteless, that it is easily digested, and that it is a cheap oil of commerce. Similar compounds may be prepared with other fats and oils, and the resulting products—e g., brominised cacao butter and lard—differ little in physical characters from the fats from which they are prepared.

Fats and oils are mixtures of the neutral glycerides of acids of the higher homologues of the paraffin, of acids of the oleic (acrylic) and linoleic (propiolic or sorbinic) series. The acids of the first-mentioned and their glycerides are saturated bodies having in their molecule a single linkage throughout, and therefore do not possess the power of adding halogen. The bodies of the next (the oleic) series are derived from hydrocarbons of the ethylene group, unsaturated, and by reason of their double linkage add bromine or iodine; the double linkage is broken with the result that di-halogen-substitution products of the corresponding acids of the paraffin series are formed, e.g.:—

$$C^{18}H^{34}O^{2} + 2\ Br = C^{18}H^{34}Br^{2}O^{2}$$

Oleic acid. Di-bromo-stearic acid.

Finally, the acids of the linoleic type and their glycerides are derived from hydrocarbons of the acetylene series, contain either a triple or two double linkages and are capable of adding either two or four atoms of halogen, e g.:—

$$C^{18}H^{32}O^{2} + 4\ Br = C^{18}H^{32}Br^{4}O^{2}$$

Linoleic acid. Tetra bromo-stearic acid.

It is thus evident that in choosing an oil for internal administration of a considerable quantity of bromine or iodine in chemical combination one containing a large proportion of acids of the paraffin series (e g., palmitic or stearic acids) is not suitable, and, on the other hand, the fats of the linoleic group, though absorbing a considerable quantity of halogen, are unsuited (e.g , linseed oil) by their unpalatability or are not general articles of commerce. In the case of iodine absorptions it is necessary to use some aid to induce addition, as when employed alone the interaction is slow. For this purpose the compound iodine-chloride or iodine in an alcoholic solution of mercuric chloride yield good results. Mills found that sesame oil would absorb 47 4 per cent. of bromine, while sweet almond oil would absorb 53 7 per cent., cotton-seed oil 50 per cent, raw linseed oil 76 per cent., boiled linseed oil 102 4 per cent., and cod-liver oil from 81·6 to 86 7 per cent. Olive oil assimilated 54 per cent. of bromine against the theoretical amount (54·3 per cent.) required for the compound $C^{3}H^{5}(C^{18}H^{33}Br^{2}O^{2})^{3}$.—(Allen.) Figures thus obtained are analytical data and in halogenising on the large scale allowances have to be made in order to ensure complete combination. In the case of iodine these percentages constitute the "iodine number" of the fat or oil and form a valuable aid to the identification and detection of substitutes in the olive oil of commerce.

PREPARATION OF BROMINOL.

Brominol is prepared by the action of bromine-monochloride in alcoholic solution on sesame oil or by the action of ethereal solution of bromine itself on ethereal solution of sesame oil. Considerable heat is produced unless due precautions in cooling are taken. The bromine fumes necessitate working in the open air or in a draught-chamber. In the manufacture small quantities of acrolein and hydrobromic acid are produced. It is therefore necessary thoroughly to wash the brominised oil with repeated quantities of warm alcohol to remove these impurities Finally, the product is dried to remove the alcohol by heating in vacuo and the strength in bromine is determined by a Carius's analysis if direct combination has been employed or by other suitable method if the bromine-chlorine compound has been used. The bromine is in slight excess to commence with and after its determination the product is adjusted by the addition of sesame oil so as to contain 33⅓ per cent.

Chloroform may also be used in the place of ether for solution. Mixtures producing bromine-chloride—e g., potassium bromide, sodium nitrite, and hydrochloric acid, or a mixture of potassium bromide with a chlorate—are also mentioned in Merck's specification of the German patent "bromipin" as being utilised for brominising, but these bodies are obviously unnecessary complications.

ANALYTICAL DATA.

At the suggestion of Sir William R. Gowers I have undertaken investigations with a view to determining whether this halogenised oil, brominol, passes through the system unchanged or whether it is absorbed. According to Merck's Report the compound "bromipin" is acted upon by the pancreatic secretion and the bile, split up, and is absorbed in the intestine.

Dr. H. Douglas Singer, house physician at the National Hospital for the Paralysed and Epileptic, Queen square, has kindly forwarded me specimens of stools and urine for examination in order that a comparison might be made between relative proportions of bromine in these excreta from epileptic patients under treatment with brominol and with potassium bromide respectively. The stools of patients under brominol were carefully desiccated on the water bath and the dried substance was powdered and passed through a fine sieve The resulting powder was then extracted with ether of a specific gravity of 0·720 in a Soxhlet apparatus for a day or more until the liquid passed over colourless The ether was distilled off and the residue in the flask was carefully dried and weighed This was examined for bromine by fusing with dried sodium carbonate or with a fusing mixture of potassium nitrate and sodium carbonate The fused mass thus obtained was dissolved in nitric acid and examined for bromide with silver nitrate, and with carbon disulphide and chlorine water The residue in the Soxhlet thimble was then examined for bromine (in the form of bromide) by fusing in a similar way and testing as above

The stools from patients under potassium bromide would not be expected to contain bromine in an ether soluble (fat) form in the fæces, but it seemed desirable to dry and extract these also with ether alongside the above in order to confirm the results and compare the amount of fats obtained in the two treatments respectively

The bulk of the urine from patients under both treatments was evaporated as nearly as possible to dryness on a water bath, and small quantities of the residue were fused with sodium carbonate and potassium nitrate, and preliminary qualitative examinations for bromine conducted as before The quantitative determination of the halogen presented some difficulty, owing to the natural presence of a considerable quantity of chlorides A method was initially adopted of treating the fuse obtained from a weighed quantity of the residue with strong sulphuric acid in a separator, adding chloroform and excess of potassium permanganate, and shaking out the liberated bromine It is important that the chloroform should already be present when the bromine is liberated by the permanganate This chloroformic solution was added to an excess of alcoholic potassium iodide, and the bromine in turn liberated an equivalent of iodine which was finally titrated with $\frac{N}{10}$ thiosulphate From the amount of thiosulphate used it is an easy matter to calculate the amount of bromine in the quantity of urine residue taken for analysis, and thus by multiplication to arrive at the bromine content in the volume of urine—e g, in the amount voided in 24 hours

Another method employed was to precipitate the halogens as silver salts from the nitric acid solution of a weighed quantity of fuse The silver salts (bromide and chloride) were weighed and heated in a stream of chlorine From the loss in weight due to the displacement of the bromine by chlorine the proportion of bromine present may be found and calculated into the equivalent contained in the urine passed in 24 hours The results are tabulated

Specimens	Nature of material.	Case under—	Weight of material in grammes.	Weight of residue on drying	Residue per cent.	Extractive with ether	Bromine in residue (after ether extraction in the case of stools)
A	Stool	Brominol 33⅓ per cent. one drachm sextis horis (four times in 24 hours).	161	43 grammes.	26·7	8·9 per cent. of original material contained decided traces of bromine.	Traces.
B	Urine.		1120	19 grammes	1·7	—	Analysis 1: 0·6 gramme of bromine from total material = 1·8 grammes (27 grains approximately), 33⅓ per cent of bromine. Analysis 2: 0·7 gramme of bromine from entire material = 2·1 grammes (31 grains approximately), 33⅓ per cent. of brominol.
C	Stool.	Potassium bromide, 30 grains ter die	85·05	30 grammes.	35·3	6·4 per cent. of original material Contained no bromine.	*Nil*
D	Urine		1120	28·9 grammes	2·6	—	Analysis 1: 1·12 grammes of bromine from total material = 1·67 grammes (25 grains approximately) of potassium bromide. Analysis 2: 1·1 grammes of bromine from total material = 1·64 grammes (25 grains approximately) of potassium bromide.

Having by me at the conclusion of these analyses small quantities of the Specimens B and D, which I had reserved as *corpus delicti*, I decided for final confirmation to examine these also for bromine content The results were as follows 100 grammes of Specimen B, evaporated to dryness with potassium nitrate, incinerated and the bromine estimated by the chlorine method, gave 0·161 gramme AgBr = 0·064 gramme of bromine, or 0·72 gramme of bromine, from 1120 grammes of sample 140 grammes of Specimen D, treated similarly, yielded 0·288 gramme AgBr = 0·122 gramme of bromine, or 0·98 gramme of bromine, from 1120 grammes of the specimen These figures, though not as accurate as the data in the table, nevertheless confirmed the latter

NOTES ON THE CASES UNDER TREATMENT

A Stool from patient, a female, aged 32 years, under treatment with brominol (33⅓ per cent) one drachm every six hours Time of passing stool, April 4th, 10 30 A M; time of previous stool, April 2nd, 10 A M

B Urine from the same patient under brominol treatment, collected during the 24 hours from March 21st, at 7 A M, to March 22nd, at 7 A M

C Stool from a male patient, aged 24 years, under treatment with potassium bromide (30 grains ter in die) The stool was passed on March 22nd at 8 30 A M The bowels had been previously opened on March 21st, at 8 30 A M This patient had before (up to March 11th) been under treatment with brominol

D Urine from the same patient as last specimen, collected during the 24 hours between March 21st, at 8 30 A M, and March 22nd, at 8 30 A M

By a glance at the table of analyses it will be seen that we are able to account in the urine, in both the brominol and potassium bromide treatments, for somewhat more than one-quarter of the quantity of bromine administered in the day. Taking Analysis 2 of Specimen B into account it is seen that three eighths of the total quantity of bromine administered passes off in the urine (one drachm of 33⅓ per cent brominol four times daily = 80 grains of bromine) In the brominol treatment small quantities of unaltered brominol and bromides are passed per rectum Other portions may pass off by the skin or lungs

The exact manner in which assimilation takes place is not easy to decide In an experimental research by Moore and Parker[1] it is concluded that "in the property of acting as a solvent for substances insoluble in water bile has its main if not its only function, both in excretion and absorption this clearly explains the part played by bile in fat absorption" These workers' results, amongst other valuable and interesting data, throw light "on the relative functions of the pancreatic juice and bile in fat digestion and absorption. The enzyme of the pancreatic juice splits up the neutral fats, forming free fatty acids, which are largely converted into soaps by the alkali present, while the bile gives solubility to the fatty acids and soaps so produced"

The digestion and absorption of brominol may be explained by the principles indicated by these authorities—namely, that the pancreatic enzyme splits up the compound, forming free fatty acids, which are to a large extent saponified by the alkali present, and the bromine is by the same agency converted into alkaline bromide. The bile then causes solution of this saponified mass of soap, fatty acid, and alkaline bromide, the latter by its easy solubility passing off in the urine. Considering the close combination of the bromine atoms in the molecules of the fatty acids and the general stability of the compound brominol it is remarkable from a chemical aspect that the halogen is absorbed to the extent to which analyses of the urine show to be the case. It may be put forward that the work to be done by the bile and tissues in converting the bromine into this soluble form is probably advantageous in producing its necessary effect in nerve trouble.

---

[1] Communicated to the Proceedings of the Royal Society, vol lxviii, No. 443, by Professor Schäfer

In conclusion, I consider that these halogenised fats deserve a more extended trial because I think that it may be argued that in some cases this ingestion may prove of benefit where the alkaline bromide by reason of its great solubility would pass off rapidly without producing its full action.

New Cavendish-street, W.

TWO CASES OF CARCINOMA TREATED WITH CACODYLATE OF SODA.

BY EDWARD MARTEN PAYNE, M.B., C.M. ABERD.

THE idea of treating cancer with arsenic is not new. There was a story told of a German countess who, being stricken with the complaint, was so horrified that she determined to forestall a lingering and painful death by taking a large dose of arsenic which, however, instead of killing the countess, cured the cancer.

CASE 1.—On Jan. 14th, 1900, I was consulted by a patient, aged about 45 years, relative to irregular and rather profuse discharges of blood from the vagina. She attributed the occurrence to the "change of life," and as she objected to a physical examination I prescribed a mixture of ergot and sulphuric acid, which stopped the floodings for the time being. On April 17th I was consulted again and this time I made a vaginal examination but found no very definite signs except a certain amount of purulent discharge, from which the patient said she had suffered for a long time. The ergot and sulphuric acid mixture was again prescribed and the patient was better in two days. On June 13th I find she had another bottle of the mixture, but she did not consult me again until August 14th. She would not be examined, so I prescribed the old mixture and she went away to the seaside. On Oct 5th I received an urgent message to go to see her at her own house. She had had a very severe attack of hæmorrhage while she was in the country and a medical man who had been called in had told her that she had cancer of the womb and had not long to live. This time I insisted upon making an examination and I found that the cervix was ulcerated and that there was fixation of the uterus. As the patient and her friends were extremely unwilling to believe that the disease was of a malignant nature I, after a good deal of difficulty and delay, persuaded them to let me call in a well-known gynæcologist who confirmed the diagnosis and who said that operative methods would be useless. This was on Nov. 29th. For the sake of doing something I had already been treating the case with Fowler's solution, and on Dec. 16th I commenced hypodermic injections of cacodylate of soda. On the first day I injected two centigrammes, on the next four centigrammes, and on the next five centigrammes, and I kept up the last named dose daily until Jan. 16th, 1901, when I increased the daily dose up to 7·5 centigrammes, which was the maximum dose that I employed in this case. The injections were continued daily, with occasional intermissions, until Feb 25th, when the patient got so tired of the needle that at her earnest request I let her have a mixture containing the drug in doses of 2·5 centigrammes which she took three times a day until March 14th, when for some reason or other she suddenly refused to go on with the treatment.

As to the results, unfortunately I could never get my patient to let me make another vaginal examination, so I was obliged to form my conclusions on other data. As to the general state of the patient's health she and all her friends agreed that there was a great improvement. She left her bed and took walks out of doors, and even travelled all the way from the distant suburb where she lived to look at the shops in Regent-street. Her colour improved. She wore close-fitting dresses which had been made for her a year ago and they fitted her exactly still. She gained weight, as much as two pounds in three weeks. The hæmorrhage ceased and the white discharge diminished. When the patient was at her work she had complained much of constipation which I believed to be due to pressure of the tumour on the rectum. This condition also became very much improved. In short, the patient herself got so much better that she finally declared that she could never have had cancer, and this was her excuse for giving up the treatment.

CASE 2.—The next case I shall describe is one of an old man, aged about 70 years. On August 2nd, 1900, he complained of a sore mouth and tongue. The tongue was a little ulcerated. There were several jagged old teeth and stumps which were thought to be the offenders, the tongue was a little swollen generally, but there was no localised swelling. A mouth-wash was supplied and after some persuasion two teeth were extracted on Sept. 10th and another one on Nov. 24th. There were no more complaints about the mouth until March 14th, 1901, when the patient told me that he felt as if he had a hole in the middle of the tongue. On examination it was found that there was a deep depression in the middle of the upper surface of the organ, and immediately beneath the depression was a hard substance of about the size of a large filbert. I suspected carcinoma, so I made known to the friends of the patient my apprehension and suggested that a specialist should be consulted. They did not care to have a specialist, but my partner, Dr. Whitehall Cooke, kindly came and after examining the patient he expressed his conviction that the case was one of carcinoma. We both agreed that considering the patient's age an operation was not advisable. On March 17th I commenced hypodermic injections of cacodylate of soda, beginning with a small dose and gradually increasing it to 7·5 centigrammes. From the first the patient said that he felt much better in himself and at the present time, after about six weeks' treatment, I am sure the swelling under the tongue is no larger; indeed, I think that it is less and that the surface of the tongue is less retracted. There is less soreness of the gums but it is not always absent. On one occasion I noticed that some of the lymphatic glands in the neck were swollen but the swelling subsided in a few days. On the outer surface of the inferior maxillary bone about the region of the left incisive fossa a swelling appeared about the time the treatment was commenced; this also has subsided somewhat.

I have given the above notes for what they may be worth, for although I fear that I cannot claim that the results I have recorded are of a very decisive nature I am myself strongly inclined to the opinion that cacodylate of soda, even if it cannot claim to be a *cure* for the cancer, is at least a very valuable palliative. It certainly seems to arrest the progress of the disease and it improves the patient's general condition, and I am of opinion that it should at least be tried in those cases where early operative methods are out of the question.

I have a theory of my own as to how arsenic acts in cases of cancer. It is well known that arsenic, which is so much prescribed in "skin diseases," has, if pushed too far, a deleterious effect on that organ. An excellent series of cases bearing on this subject is given by Mr. J. Hutchinson in the *Polyclinic*.[1] Amongst these several cases are recited in which the continuous use of the drug has been said to produce cancer and cancerous ulcers, or, at any rate, growths and ulcers, which appeared to be morphologically identical with cancer when examined under the microscope. Now in view of the theory which has of late years been revived and is at the present time in growing favour with pathologists—viz, that cancer is due to the irritation of the epithelial cells by a specific micro-organism—may we not fairly question whether, after all, these growths and ulcers which have been attributed to the effect of arsenic are really pathologically identical with the growths and ulcers known as cancers? If cancer be due to the irritation of the epithelial cells by a specific organism then these ulcers and growths either are not cancerous or if they are they are not due to the arsenic but occur coincidently only with its administration, unless, indeed, it be maintained that the arsenic acts as a secondary or exciting cause by which the dormant energies of the latent micro-organism are stimulated to action. Now there are so many of these cases quoted that it does not seem probable that the appearance of these cancers is purely coincidental, although it might happen that the cancer was the ultimate manifestation of an abnormal condition of the epithelial cells which at first showed itself in the shape of the psoriasis or whatever it was that was the primary object of treatment. The theory that the arsenic stimulates the dormant organisms into a state of activity seems too far-fetched to be accepted without further evidence, so we are thrown back upon one or the other of the following suppositions—viz., that the growths and ulcers following excessive doses of arsenic are *not* truly cancerous but are pathologically distinct although morphologically similar; or that cancer is a growth having a certain morphological structure pathologically due to some epithelial irritant and that amongst such irritants arsenic is one In any case it seems certain that arsenic has a specific action on the epithelial cells, at first beneficial, ultimately destructive. It also seems to be a plausible theory that on coming in contact with the epithelial cells in a person suffering from cancer its deleterious effects would be resisted more vigorously by the normal physiological cells, while pathological cancerous cells would be the first to be overcome and destroyed.

---

[1] Vol. iv., p. 44.

Cricklewood, N.W.

ACUTE COLITIS IN CHILDREN.[1]

BY EDMUND CAUTLEY, M.D. CANTAB., &c.,

PHYSICIAN TO THE BELGRAVE HOSPITAL FOR CHILDREN, ASSISTANT PHYSICIAN TO THE METROPOLITAN HOSPITAL.

IT is a remarkable fact that the occurrence of acute colitis, or ileo colitis, in epidemic form is almost unknown, or at any rate unrecorded, in England Even in America, where diarrhœal affections in children are more common and more severe during the hot season than in England, the disease does not appear to have attracted attention as an epidemic. A small but very definite outbreak has recently come under my observation and is well worthy of publication. Six out of 30 children were affected and of these patients four died. Four of them came under my care, two of whom died. Three out of 13 adult women were attacked less severely and recovered. The first case I saw in consultation with Mr. D. Boyd Keown who kindly agreed to transfer the child to the Belgrave Hospital for Children for treatment and has since supplied me with the following particulars of the epidemic.

Habitation.—All the cases broke out in certain London barracks, in rooms opening on to a common staircase. On this particular staircase there are four floors with four rooms on each floor. 13 families, consisting of 13 women and 30 children, occupied these 16 rooms, three of the larger families having two rooms apiece. On the third floor lived three women with two, two, and five children respectively. The first case broke out on this floor on June 20th, 1900, and the second on June 30th. Two out of the family of five children were affected and both died (Case 1 and Case 2). On the second floor lived three women, one of whom had four children. No case occurred on this floor. On the first floor lived three women, one of whom had four children, another had five children, while the third had none The last cases broke out here at the beginning of August. The mother of five and two of her children were attacked and one of the children died. On the ground floor lived four women with three, three, two, and no children respectively. The family of the mother and two children were all affected, the first on July 14th, and of these the younger child died. One of the women with three children was attacked, but not severely, and her children escaped. Thus the epidemic started on the top floor, then broke out on the ground floor, and finally on the first floor.

Etiology.—As far as could be ascertained by personal inspection no fault could be found with the water-supply, the lavatory accommodation, or the drainage inside the building. Just outside the entrance a pipe, carrying the rain-water from the roof, opened into a gully from which the grating had been removed. This gully was frequently full of stagnant offensive water, and in one instance (Case 3) the child had been noticed putting her hands in the water and then in her mouth. It must, however, be pointed out that other children living on adjacent staircases had access to this water and that the outbreak was limited to the one staircase. The milk-supply for the families affected came from two different milkmen. The food-supplies were bought outside the barracks. A very careful investigation by Mr Keown and myself did not enable us to ascertain what the source of infection had been. Although the cases occurred during the hot months of the year the weather was colder than usual at the time.

The following are short details of the four cases which came under my charge.

CASE 1.—A girl, aged five years, was admitted into the Belgrave Hospital for Children on June 28th, 1900, and she died on July 1st. On June 22nd the family had some fried mackerel of which the child partook. Vomiting and diarrhœa began at 4 A.M next day and persisted in spite of treatment. On admission the child was very ill and cold and wasted; the temperature was normal and the pulse was 140. Nothing abnormal was found on physical examination. The abdomen was lax and empty and it was nowhere tender. Vomiting continued. The diarrhœa was profuse as regards frequency, 20 stools being passed on the 29th and 14 on the next day. The stools were small, sometimes not more than a tablespoonful at a time, green, containing mucus and blood, and very offensive. There did not appear to be any pain or tenesmus, though there was a history indicating a certain degree of tenesmus The child rapidly got weaker and she died from exhaustion at 2 25 A M. on July 1st. The temperature reached 101° F a few hours before death.

CASE 2.—A boy, aged three years, was admitted to the hospital on July 1st, 1900, and he died on the 8th. The patient was brother of the first child and they had slept in the same bed. He was quite well until the afternoon of June 30th and was a fine, strong, well-nourished boy. Illness began with abdominal pain, vomiting, and diarrhœa. On admission his temperature was 103° F., the pulse being 144 and the respirations 36 Nothing abnormal was found on physical examination. Possibly the abdomen was a little distended, but there was no tenderness. The course and symptoms were the same as in the first case. The stools numbered from 11 to 20 in the 24 hours; they were small and green, containing bright red blood, mucus, and a little fæcal matter, and were very offensive. Vomiting was troublesome and persistent. On the day before death he brought up some blood. He took food badly, was very restless, and he died from exhaustion. No other cases occurred in this family. Temperatures were taken every four hours, the highest and lowest readings Fahrenheit for each day being as follows:—July 1st: highest 103°; lowest, 98·8°. July 2nd: highest, 101·4°; lowest, 98°. July 3rd: highest, 100·8°; lowest, 98·8°. July 4th: highest, 100·8°; lowest, 98·2°. July 5th: highest, 101°; lowest, 98·2°. July 6th: highest, 100·2°; lowest, 97·4°. July 7th: highest, 99·8°; lowest, 97·2°.

CASE 3—A female infant, aged two years, was admitted into the hospital on July 18th, 1900, and was discharged cured on August 27th. She was the elder of two, the other being a baby at the breast It could not be ascertained that the illness was due to any deleterious article of diet, but on July 13th, the day preceding the onset, the child was noticed putting her hands into the dirty water previously mentioned and then into her mouth. On the 14th she was languid and had diarrhœa In the evening she vomited after taking medicine and she had a little colic. Next day the vomiting was continuous and the diarrhœa was worse, with a large amount of blood in the stools. The hæmorrhage was severe on the following day and then it diminished, more mucus being passed. On admission she had a temperature of 101° F., was well-nourished, and presented a moderate degree of abdominal distension, without pain or tenderness. The fever lasted for a fortnight; it was rarely up to 100° F. Vomiting ceased on the 20th. The diarrhœa persisted for a fortnight, the stools becoming less frequent and more fæcal. They were never as numerous as in the first two cases, 12 being the maximum number in the 24 hours. At first they presented the usual characteristics and were very green. No blood was seen after the 31st and no mucus after a few more days. The stools were unformed and offensive for a further 10 days and after that they became normal. At first the child was very ill, lethargic, and fed badly, but she improved steadily with the cessation of the diarrhœa Otitis media occurred as a complication. Soon after this child was taken ill and before she was transferred to the hospital the infant, aged three months and entirely breast-fed, was similarly attacked. She died after two weeks' illness, characterised by pyrexia and diarrhœa, the stools being green and containing blood and slime. After the baby the mother was attacked and she passed blood in her stools for four days Another adult woman living on this floor was also affected but less severely. She had three children who escaped.

---

[1] A paper read before the Medical Society of London on May 13th, 1901.

Case 4.—A male child, age three years, was admitted into the hospital on August 11th and was discharged cured on Sept. 17th, 1900. He was one of five children living on the first floor. This proved to be the mildest case of the series. The patient was taken ill on the 8th, and when admitted he did not seem very ill. His tongue was clean; the temperature was 100° F., and the pulse was 130. The stools were offensive and they contained blood and mucus. The vomiting and characteristic stools persisted for a week, but the stools never exceeded four in the 24 hours. Pyrexia was slight for four days. After a week recovery was steady and uneventful though slow. A brother of this patient was similarly affected, his illness beginning a week before the patient was attacked. He was admitted into another hospital and there he died. The mother was also severely attacked and was in bed for a week.

Morbid anatomy.—In the first case it was found that the whole of the large intestine, from the cæcum to the anus, was enormously thickened, so much so as to form an almost rigid tube. The thickening involved the whole wall, but it especially affected the mucous membrane. On the surface of the latter were some superficial minute abrasions, hardly sufficient to call ulcers, and small hæmorrhages. The last few inches of the ileum were acutely inflamed, but little if at all thickened. There was another small patch of inflammation in the ileum higher up. The mesenteric glands were swollen and one bronchial gland was caseous. Nothing else of importance was found. The second case presented somewhat similar appearances. The acutely inflammatory condition of the whole of the large intestine was present as well as considerable thickening, but there was not the enormous thickening found in the first case. For quite two feet the lower end of the ileum continuous with the cæcum was acutely inflamed, and a patch of similar inflammation about six inches long was found in the ileum higher up. On the surface of the inflamed mucous membranes were small hæmorrhages and superficial abrasions, but no definite ulceration. In both of these cases the total duration of the illness was almost identical, but in the first the effect on the large intestine was much more severe than it was in the second In both the main stress of the attack fell on the large intestine, the amount of inflammation in the ileum being in comparison of quite minor importance.

Nomenclature.—A certain amount of criticism may be directed to the name which I have given to this disease. That it deserves a special name must, I think, be conceded in view of the characteristic symptoms, course, and morbid anatomy. It must, however, be pointed out that cases of this description are generally included in that group of diseases described under the names zymotic diarrhœa, inflammatory diarrhœa, enteritis, entero-colitis, ileo colitis, and dysentery or dysenteric diarrhœa. If one name be taken to include the whole of this group of diarrhœal diseases that of "ileo-colitis" is apparently the most appropriate, for in the large majority of the cases there is present some degree of inflammation of the ileum. It appears to me that the time has come to differentiate these affections In ileo-colitis, as described in the text-books, it is usually stated that in only about half the cases is the ileum involved. Surely, then, many of these cases can be more appropriately classified under the name "colitis." The morbid anatomy of the two fatal cases showed distinctly that the main stress of the pathological process fell upon the large intestine. In fact, in the first case the effect on the large intestine was so striking as to suggest the name of "acute proliferative colitis" for the disease. The second case would come more satisfactorily under the heading of "acute catarrhal colitis." On the whole, I am of the opinion that this latter name is the more suitable one for the cases in this small outbreak. There is more than a superficial change in the epithelium such as occurs in ordinary gastro enteric infection. According to the nature and extent of the change a further differentiation can be made. Thus acute catarrhal colitis may occur with or without ulceration; or a follicular colitis may occur, and further a pseudo-membranous form has been described.

General description.—There is very little doubt that the cause of the disease is some form of microbial infection or toxæmia, almost certainly the former. The actual variety of micro-organism responsible has not been definitely ascertained either in these cases or in others which have been investigated. In Case 2 Dr. F. W. Andrewes found the bacillus enteritidis sporogenes and the bacillus coli communis, but could not definitely ascribe the disease to either organism. Streptococci were found by Booker in the deeper lesions in some cases which occurred in America. In a few others, which were no doubt true dysentery, the amœba coli was found by Cahn. Although the disease is most common in hot weather, it may occur at any season of the year. Sometimes it is secondary to infectious diseases such as measles, diphtheria, and some forms of broncho pneumonia. Ulceration of the colon may also result from enteric fever and dysentery. and is occasionally due to tuberculous or malignant disease. The disease under consideration is most frequent in infants under two years of age; in fact, a certain amount of catarrhal or follicular colitis is not uncommon in fatal cases of inflammatory diarrhœa in infants at this period of life. It is noteworthy that in the present outbreak only one infant under two years of age—viz., a breast-fed infant three months old—was affected; that the age of the other children varied from two to five years; and that three adults were attacked. Proportionately, the percentage of adults attacked was as great as that of the children. Probably the primary source of the infection was some article of food or drink. In some instances it appears likely that the disease was acquired by direct infection from a previous case, perhaps from a lack of absolute cleanliness while attending to the invalid. Thus, the second case may have been acquired by infection from the first through sleeping in the same bed, which was undoubtedly contaminated by the fæcal discharges. Also, the mother in the third case was attacked subsequently to her children, and, seeing that the stools of the child first ill were frequent and offensive and that she was nursed for some days by the mother, direct infection is a likely explanation. Moreover, the young child was entirely breast-fed and did not have even water in addition to the mother's milk.

Symptomatology and course—In each case the onset was sudden, with vomiting, diarrhœa, and pyrexia. Vomiting is a most pronounced symptom, being frequent and persistent, varying in severity in different cases. It is not due to any affection of the stomach and is most probably dependent on reflex irritation, though possibly it is caused by a toxin acting on the nervous centres. Anorexia is complete and, like the vomiting, is independent of gastric conditions. The tongue in one of the milder cases remained clean throughout, but in the others it was somewhat furred and it tended to become dry and brown in the centre. The stools are very frequent, small, green, very offensive, and contain mucus and bright red blood and little or no fæcal matter. Although frequent the diarrhœa is not profuse, the stools being sometimes only about half an ounce in amount. There is no marked tenesmus. It was noted in the first case as present but as being slight, and was absent in the other three cases. The abdomen may be retracted and empty or it may be moderately distended. In no instance was any tenderness discoverable along the course of the colon. The facial aspect is of the abdominal type—sunken eyes, pallor, and an anxious look. Restlessness is a marked symptom and there is very considerable nervous prostration, quite out of proportion to the amount of diarrhœa and very suggestive of a general toxæmia. The character of the pyrexia is well illustrated by the temperature record of Case 2. In the fatal cases the vomiting, diarrhœa, restlessness, and fever persist in spite of treatment and death results from the rapidly increasing asthenia, which seems to be due largely to the effect of the poison on the nervous system and by no means to the severity of the diarrhœa. In a more favourable case the tongue, if furred, rapidly cleans; the blood disappears from the stools, the mucus next lessens, and the amount of fæcal matter increases, the stools becoming less frequent. The stools retain their offensive odour for some days after the diarrhœa ceases and even when the motions are solid. With the cessation of the diarrhœa the pyrexia subsides.

Prognosis.—The prognosis is bad in the acute cases. Although five out of six of the children were over two years of age, no less than three of them died. The indications on which I lay most stress as being of serious import are vomiting, uncontrolled by drugs and diet, and restlessness. The frequency of the stools and the persistence of blood and mucus in them are also indicative of the severity of the attacks.

Treatment.—The treatment must be directed to maintaining the strength of the patient and stopping the diarrhœa and vomiting. Warmth and rest in bed are essential. Diet is all-important, for in face of the complete anorexia and vomiting it is extremely difficult to get the child to retain sufficient food. Thin arrowroot made with water is retained fairly well. Other foods of value are albumin-water, meat juice, peptonised milk, milk diluted with a thin farinaceous fluid, and unsweetened condensed milk. In the worst cases nothing is retained long, the vomiting being due to reflex irritation or toxæmia and not to any gastric cause or the nature of the food. Stimulants are essential and may be used freely. Brandy is the best. Of drugs I found hydrochlorate of cocaine (in doses of one-hundredth of a grain) the most useful to stop the vomiting, and salicylate of bismuth in large doses for the diarrhœa. Other drugs were tried, but the above gave the best results. Urotropine was given with a view to disinfecting the alimentary canal but it exerted no influence on the offensive character of the stools. Opium by the mouth did not seem to be beneficial, and enemata of starch and opium were only of slight value. Rectal irrigation was tried in one case unsuccessfully. Theoretically irrigation of the large intestine would be beneficial by washing out mucus, micro-organisms, and other deleterious matters present. Practically it is very difficult to carry out efficiently in children and is strongly objected to. In view of the fact that the pathological process is more than a superficial one irrigation is unlikely to be of any great benefit. If used, a weak solution of boric acid is the best. Silver nitrate should not be employed.

PATHOLOGICAL REPORT ON CASE 2, BY DR. F. W. ANDREWES.

The only organisms isolated were the bacillus enteritidis sporogenes and the bacillus coli communis. The former was obtained from the colon in anaerobic milk culture after heating to 80° C. for 10 minutes. It was virulent on a guinea-pig. The latter came out in almost pure culture in aerobic cultures on gelatin and agar-agar. Its virulence was not tested, but various chemical tests were applied and they showed that it was the ordinary bacillus coli communis and not Gärtner's bacillus enteritidis.

Microscopical examination.—The contents of the colon, stained with methylene blue and Gram's method, show a vast number of micro-organisms of very various kinds of which short bacilli, resembling bacillus coli communis, are the most abundant. Very few streptococci can be recognised. Sections of the colon show a high degree of congestion. The mucous membrane is ulcerated away in many places, exposing the submucosa but not the muscular coat. At such places especially there is an infiltration with round cells, but this does not involve the muscular coat. The epithelium of the colon is desquamated in many places, including Lieberkühn's crypts. The submucosa, on the whole, shows very little infiltration, except where actually laid bare by ulceration. Sections stained for micro-organisms show plenty on the surface of the mucous membrane and in the crypts, but they do not extend deeply into the mucous membrane. They are chiefly bacilli resembling the bacillus coli communis.

Upper Brook-street, W.

PRESENTATIONS TO MEDICAL MEN.—Mr A. B. Pugh, for some time house surgeon of the Huntingdon County Hospital, on his leaving the neighbourhood has been the recipient of a travelling clock, subscribed for by 150 people of Godmanchester and Huntingdon, in recognition of his kind attention and medical skill.—At a meeting held at the Westminster Palace Hotel on May 15th Mr. E. L. Jacob, M.R.C.S. Eng., who has recently resigned the office of medical officer of health of the Surrey United Sanitary District, after 27 years' active service, was presented with a silver tea and coffee service by the gentlemen with whom his official work brought him into close association. The county treasurer, Mr. Francis H. Beaumont, of Buckland Court, Betchworth, presided. The meeting was well attended and comprised a large number of professional brethren and officials.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON A CASE OF RUPTURED INFERIOR VENA CAVA: VITALITY AFTER SEVERE INJURY.

By ADRIAN CADDY, M.B. LOND.,
HOUSE PHYSICIAN, ROYAL FREE HOSPITAL.

A BOY, aged eight years, was brought to the casualty room of the Royal Free Hospital on Feb. 28th, 1901, with a history of being run over by a dustcart. The first thing we noticed was a large lacerated wound on the outer side of the right knee-joint, with a tear in the capsule of the joint. The left knee-joint had a worse wound about three inches square on the inner side completely denuding the bone and exposing the semilunar cartilage which was quite loose between the femur and tibia. The boy, when first seen, did not appear to be much hurt and sat up and talked freely about a pain in his left side. On examining his thorax the majority of his ribs seemed to be fractured. He then gradually got worse, becoming very pale, with a pulse of 140 and very thirsty. He gradually became unconscious, and finally died two and a half hours after admission. At the necropsy extensive bruising was found all over the front of the thorax. The left ventricle of the heart had a large bruise on its anterior surface. There was a pint of blood in the left pleural cavity, there was a laceration of the base of the lung two inches long, and there were seven fractured ribs on the left side. On the right side six ribs were fractured and there were four ounces of blood in the right pleural cavity. In the abdomen the inferior vena cava was discovered completely torn across; there was no rupture of the liver or injury to the diaphragm, the tear in the vein being between the liver and diaphragm. There were 12 ounces of blood in the peritoneal cavity and a slight bruise of the transverse colon. All the other organs were uninjured and healthy.

The interest of this case lies in the fact of the boy's power of living after such extensive injuries for two and a half hours, excluding the time required to bring him to hospital (20 minutes), the injuries including the rupture of the largest systemic vein of the body, laceration of the lung, and bruising of the left ventricle of the heart.

A RARE CAUSE OF SUDDEN DEATH.

BY G. HERBERT METCALFE, M.R.C.S. ENG., L.R.C.P. LOND.

I WAS sent for on the evening of Feb. 16th, 1901, to see a girl, aged 13 years. On my arrival I found that she was dead, apparently asphyxiated. I was given the following history. The patient had been quite well for the last year with the exception of a slight cough after food or on exertion for the last three days. Five minutes before my arrival she started to run upstairs sucking an orange, but suddenly returned to the room gasping for breath and fell back dead. Three years previously I had attended her for right-sided phthisis, but about a year ago I considered her cured. The only cause of death that occurred to me was the impaction of a piece of orange in the trachea. A post-mortem examination was made 24 hours after death, at which I was kindly assisted by Miss Margaret S. Sharp, M.B. Lond. The right pleura was firmly adherent throughout. On opening the trachea it was found blocked by pieces of caseous gland. On the right side, half an inch above the bifurcation, was a round hole with smooth edges admitting a No. 12 catheter. This communicated with a sac containing caseous gland similar to that found in the trachea. There was an old fibroid tuberculous lesion at the root of the right lung almost completely healed. The cause of death was evidently the sudden blocking of the trachea by the rupture into it of a caseous gland. This case shows the importance of a post-mortem examination. I should be glad to hear of any similar cases that may have been reported.

Clare, Suffolk.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

KING'S COLLEGE HOSPITAL.

A CASE OF GASTROSTOMY FOR MALIGNANT DISEASE OF THE STOMACH.

(Under the care of Mr. W. ROSE.)

THE coexistence of the cysts of the kidney with the malignant disease of the stomach in the following case appears to have been a mere coincidence. Gastrostomy for carcinoma of the stomach itself is a rare operation and can only be required when the new growth is confined to the cardiac half of the viscus, for when the malignant growth affects more than half of the stomach a jejunostomy is preferable. For the notes of the case we are indebted to Mr. R. Sturgeon Cocke, house surgeon.

A woman, aged 69 years, was admitted into King's College Hospital under the care of Mr. Rose on Nov. 24th, 1900, with the following history. She had suffered from dyspepsia for years, but five months before admission she began to experience difficulty in swallowing. The dysphagia gradually increased so that on admission she was quite unable to swallow solids and only a small quantity of liquid, most of her attempts at deglutition being unsuccessful and immediately followed by regurgitation, suggesting an obstruction at the lower end of the œsophagus. Moreover, chronic constipation had existed for a like period, and she had lost weight to the extent of three or four stones, and there was marked cachexia. Careful auscultation failed to detect anything in the nature of an aneurysm. The urine was normal in every respect. As it was found impossible to pass an œsophageal bougie in the ordinary way the patient was anæsthetised and several sizes were introduced in succession, but in every instance the bougie was arrested at a point about 12 inches from the teeth. It was therefore obvious that the only operative treatment feasible was gastrostomy, since there was everything to indicate the existence of a malignant growth.

On Dec. 3rd the patient was again anæsthetised with a view to the operation of gastrostomy, and whilst the abdomen was being purified in the usual manner a rounded swelling of about the size of a fœtal head was seen and felt at the junction of the umbilical and left lumbar regions. The swelling was fairly moveable and its limits could be easily defined on account of the lax and thin condition of the abdominal wall. The abdomen was opened by a vertical incision five inches long, about one inch to the left of the median line, commencing two inches below the costal margin, the fibres of the rectus being separated by the finger. On introducing the hand into the peritoneal cavity the swelling was found to be cystic and connected with the lower end of the left kidney. On attempting to separate it the kidney substance was torn, leading to troublesome hæmorrhage, and the cyst opened, allowing of the escape of a considerable quantity of pale straw-coloured inodorous fluid; as no connexion could be found with the pelvis of the kidney it was probably serous in nature. Further examination of the organ revealed the existence of a similar cyst connected with its upper end; the wall was thin and easily gave way. The kidney was next drawn out of the wound and freed from its surroundings, and after the ureter and vessels had been severally tied it was removed.

In order to examine the condition of the stomach the incision was enlarged upwards for an inch and a mass, probably carcinomatous, was felt which at first appeared so extensive as almost to preclude any operative measures. On further examination, however, it was found that the pyloric end and lower portion of the great curvature were free and that the disease was mainly limited to the cardiac extremity. A cone-shaped portion near the pylorus was drawn into the upper part of the wound and its base was stitched to the parietal peritoneum and posterior layer of the sheath of the rectus. The sides of the cone were stitched to the rectus muscle and its apex to the skin through which it protruded for about half an inch. The lower portion of the abdominal wound was closed in the usual way after a counter-opening in the loin had been made for drainage. Finally, a small opening was made in the stomach at the apex of the cone and a piece of rubber tubing of the size of a No. 10 catheter was stitched in so that about two inches of it protruded into the viscus and three or four inches were outside. Four ounces of milk together with an ounce of brandy were at once introduced through the tube. Antiseptic dressings were applied in such a way that the tube could be reached for feeding purposes without disturbing the wound.

The patient suffered a great deal of pain for the first few days after the operation, but this was relieved by morphia. The food was well retained and there was not a sign of regurgitation. A little fluid given by the mouth was also swallowed and this relieved the dryness of the tongue and feeling of thirst. The urine was diminished for a few days and contained a trace of albumin, and the patient suffered from retention necessitating the use of a catheter. Diarrhœa set in on the third day with slight melæna, lasting four days. The temperature never rose above the normal. The drainage-tube from the loin was taken out on the fourth day and the stitches were removed from the abdominal wound at the end of a week. The subsequent course of the case has been as satisfactory as could be expected. The pain was considerably relieved for a time. The patient gained flesh and there was no difficulty in administering nourishment, since no regurgitation occurred through the opening and no irritation of the surrounding skin.

On March 10th, 1901, the patient's condition was as follows. She weighed 5 stones 10 pounds. The temperature was normal and the pulse was 68, full and regular. She was being fed by the stomach-tube every five hours, 16 ounces being administered at each feed. Benger's food was chiefly used and once a day a soup made of spinach and potato was given. The pain was variable, but seemed to have got worse lately, extending from the seat of the disease to the left shoulder, and requiring occasional doses of morphia. The bowels were constipated, though for a short time after the operation there was some diarrhœa. The constipation was overcome by glycerine enemata, since the administration of any aperient by the stomach brought on painful tenesmus. The general condition improved for some time, but the cachectic condition was becoming more marked. After this date the patient's condition steadily deteriorated and she died on April 3rd. Unfortunately no post-mortem examination was permitted.

Remarks by Mr. ROSE.—The most interesting feature in this case is the coexistence of a cystic kidney with malignant disease of the cardiac orifice of the stomach. From the excellent progress made by the patient after the operation it was evident that the left kidney had been for some time functionally useless, and that the relief of pressure consequent on its removal acted beneficially rather than otherwise. It was clearly in accordance with the principles of surgery to ascertain the nature of this abdominal growth, as until this was done it was impossible to say how far its presence would neutralise any efforts directed to the stomach. Had, for instance, this growth involved and obstructed the intestinal tract lower down the performance of gastrostomy would have been useless. As it was, the patient's life was prolonged for about four months, during which time the artificial opening acted most satisfactorily. There was no regurgitation and hence no irritation of the skin around. I should mention that the method I employed was a modification of Frank's operation, suggested and practised by my colleague, Mr. A. Carless. In it the apex of the cone of gastric wall is fixed in the upper angle of the incision, and the rectus muscle after being detached from its sheath is sutured together around it, thus constituting a very efficient sphincter.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

A CASE OF TYPHOID FEVER WITH SUTURE OF THE PERFORATED BOWEL; RECOVERY.

(Under the care of Dr. H. MALET and Dr. E. DEANESLY.)

THE diagnosis of perforation of a typhoid ulcer is frequently very difficult, but sudden severe pain in the right iliac region occurring in the course of an attack of typhoid fever is practically sufficient to justify the diagnosis. Whether recovery ever follows in these cases without operation is doubtful. Occasionally patients have recovered after a diagnosis of perforation of a typhoid ulcer has been made, although no operation has been done, but naturally a doubt has always existed as to the correctness of the diagnosis, for only in fatal cases has it been possible to verify it. For all practical purposes it may be said that laparotomy offers the only chance of recovery, and it should be performed as soon as the diagnosis is made unless the patient is moribund. For the notes of the case we are indebted to Dr. H. F. Parker, house physician.

A youth, aged 17 years, was on Feb. 18th admitted into the Wolverhampton and Staffordshire General Hospital under the care of Dr. Malet. The patient, who was suffering from typhoid fever, first felt ill on the 13th when he had some shivering, backache, and abdominal pain. On admission the temperature ranged from 100° to 103° F., the pulse varied from 68 to 80, and the tongue was dry and furred. There was no bronchitis; there was slight distension of the abdomen but no pain, the spleen was not palpable, and there were no rose-spots. Widal's reaction was dubious on the 19th but was subsequently well marked. The bowels were moved on the 19th after the administration of 2 drachms of castor oil. No aperient was given after this date. His condition steadily improved and the morning temperature had become normal on the 27th, the fifteenth day from the first symptom of his illness. On that day at 3.30 A.M. he was awakened by sudden violent abdominal pain which caused him to roll about in agony. Two hours later he vomited. The abdomen was then found to move very slightly with respiration and to be tender but not distended. The pain was not localised but was referred to the whole of the abdomen. The temperature was 98 4° and the pulse was 96. The liver dulness was normal. Turpentine stupes were applied; pain soon subsided and the general condition greatly improved. Flatus was passed, the pulse fell from 96 to 84, and the abdomen moved more freely. The temperature, however, rose to 102 8°. At 10.30 A.M., seven hours after the first onset of pain, the patient was seen by Dr. Deanesly who decided to operate at once.

The operation was performed in the ward without moving the patient from his bed. Chloroform was administered and the skin of the abdomen was thoroughly cleansed. On opening the abdomen by a three-inch oblique incision in the right iliac region turbid yellow fluid was at once found among the coils of small intestine and welling up from the pelvis. The second coil of small intestine which was brought out for inspection immediately disclosed a small perforation in the centre of a circular ulcer, the outline of which was visible through the coats of the bowel. The ulcer was situated opposite to the mesenteric attachment and was of about the size of a shilling. The perforation was in its centre, and fluid similar to that in the peritoneal cavity was seen escaping from it together with bubbles of gas. No other perforation was seen, but the possibility of the existence of more than one perforation, although borne in mind, was not thought to justify a prolonged search. The whole ulcer was invaginated by a complete transverse folding of the intestine and fixed in this position by a double row of continuous sero-muscular sutures of fine silk passing through healthy tissue at some distance from the margin of the ulcer. The peritoneum was then cleansed thoroughly by pieces of moist gauze passed among the adjoining coils and also down to the bottom of the recto-vesical pouch. The total quantity of extravasated fluid was estimated at seven or eight ounces. No drain was inserted. The peritoneum and transversalis fascia were sutured with a fine continuous suture of silk and the rest of the wound was brought together with silkworm-gut sutures.

The operation, which lasted about one hour, was borne without the slightest sign of shock, the pulse at the finish being 84 and of good volume. One tenth of a grain of morphia was injected as soon as consciousness returned and the patient was soon asleep. There was no vomiting after the operation and flatus was passed the same evening. After the first 24 hours his condition never gave rise to anxiety and the temperature scarcely rose above normal. The wound, however, which was unavoidably contaminated by the extravasated fluid, suppurated on the fourth day and the stitches had to be removed. The wound then granulated readily and healed quite soundly, the peritoneal suture not having required removal. The bowels were moved on March 3rd by an enema and solid food was allowed on the 16th. The patient got up on the 31st and was discharged in good health on April 6th.

Remarks by DR. DEANESLY.—When I first saw the patient the most remarkable thing about him was the absence of anything in his aspect or pulse to suggest a serious abdominal lesion, and this in spite of the fact that no opiate had been administered. The only signs that I could detect were a slight but distinct deficiency of abdominal respiration and a little tenderness in the right iliac fossa. Nevertheless, the history of the attack was so unmistakeable and the house physician's account of it was so accurate and circumstantial that I did not hesitate to operate. I do not know whether a lateral incision is usually adopted for this purpose, but from the common situation of the majority of ulcers occurring in typhoid fever an incision in the neighbourhood of the cæcum appears to me to be preferable to a median section. At any rate, I was fortunate in finding the perforated ulcer with great ease. Invagination of the whole ulcer is the most obvious method of closing the perforation as it is impossible to suture the rotten tissues over the ulcer itself. This cannot be done by means of a longitudinal fold without dangerously narrowing the lumen of the bowel, but by a transverse folding of the bowel an ulcer of any size can be invaginated without producing more than a moveable internal spur something like an exaggerated valvula connivens. I have adopted this method for dealing with a localised gangrenous patch of bowel in a case of strangulated hernia with a perfect result.

The question of drainage or no drainage is always a difficult one in such cases and must be decided in each case on general principles. In this case the short duration and small amount of extravasation decided me to trust to the peritoneum to deal with all that was left after a careful cleansing. In this expectation I was not deceived, but it is significant of the varying capacity of different tissues for dealing with the same infective agent that the parietal wound suppurated while the peritoneal infection was arrested.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

Acute Colitis in Children.—Rheumatic Chorea, its Varieties and their Treatment.

A MEETING of this society was held on May 13th, Mr. JOHN H. MORGAN, the President, being in the chair.

Dr. EDMUND CAUTLEY read a paper on Acute Colitis in Children which is published *in extenso* at p. 1463 of our present issue.—Dr. F. DE HAVILLAND HALL remarked on the frequency of "summer diarrhœa," so-called, and expressed the opinion that the term had much too wide an application. The different varieties of pathological condition to which the term was applied were not, he thought, sufficiently differentiated. There were many indications in Dr Cautley's cases which supported the notion that the colitis was of toxæmic origin, such, for instance, as the absence of any local pain or tenderness.—Mr. F. C. WALLIS remarked on the selection of the colon by the disease which seemed to be strictly localised to this structure. What was the reason for this special proclivity? He suggested that this was very probably due to the differences in the chemical composition of the contents of the large bowel as compared with that of the small intestine. The contents of the small intestine had actively digestive properties, and in fæcal fistulæ communicating with the small bowel great trouble was experienced in protecting the skin around the wound. This was not so in fistulæ connected with the large bowel. Perhaps the absence of digestive substances from the colon allowed bacteria to obtain a footing in the latter.—Dr. A. F. VOELCKER, referring to his experience in the dead house, remarked that most cases of colitis proved at dilata- necropsy to be part of a generalised gastro-ente the hæmor- would like to ask Dr Cautley what were th ollected records which he concluded that the vomiting in condition seemed independent of any stomach lesion? He average age was 48 ask whether Dr. Cautley had tried crea was equally common in the treatment of these cases? H was 36 years. There employed these remedies in simila of calcified pericardium considerable advantage and there cardiac signs at all in a indication for the employment of diagnosis even of adherent

Dr. CAUTLEY, in replying, remarked that the children died in this disease from general infection. This was consistent with the absence of local signs. Although there was general involvement of the colon there was a notable absence of local signs. The order in which his cases had developed the disease was first the child, then the infant, who caught the disease from the child, and then the mother. Why the disease should be limited to the colon he could not say. Mr. Wallis's explanation was feasible up to a certain point, but in his belief the main reason was because the intestinal contents stayed longer in the colon. The best treatment, if seen early, was free purgation to start with. Irrigation of the bowel had been tried but it only did partial good. Operative treatment was of very doubtful use. He did not use creasote. Post-mortem signs had been his chief guide to treatment. He did not think that intestinal antiseptics would be beneficial. His favourite remedy was salicylate of bismuth, with cocaine to stop the vomiting. The evidence on which he concluded that the vomiting was probably of toxæmic or reflex origin was the cleanness of the tongue and the absence of catarrh from the stomach and small intestines.

Dr. LEONARD GUTHRIE read a paper entitled Remarks on Rheumatic Chorea: its Varieties and their Treatment. He regarded ordinary or Sydenham's chorea as a rheumatic manifestation and not as a disease in itself. "Fright" cases were not in a different category, for fright was only another name for shock. The results of shock were the same, whether produced by injury, by chill and exposure, or by emotion. Shock from any cause lowered vitality and favoured the action of the rheumatic diplococcus. When chorea ensued there was doubtless some peculiar instability or weakness of the nervous system as well. Chorea was divided for convenience of description into two main varieties—sthenic or explosive and asthenic or pseudo-paralytic—each of which was subdivided into severe and mild. Severe sthenic cases were characterised by spontaneous, uncontrollable, conflicting movements, which were increased on attempted voluntary action, and also when the patient was under observation. The milder sub-varieties of sthenic chorea were: (1) cases in which spontaneous movements ceased during rest but were excited by voluntary actions and by observation of the patients; (2) cases in which spontaneous movements could be controlled by an effort of will, but the effect was to produce rigidity of the limbs and extreme incoördination in attempted voluntary actions; and (3) cases of residual chorea in which the symptoms continued, but the complaint seemed cured, for spontaneous movements ceased and voluntary actions could be performed without ataxy and rigidity when the child made an effort of will. The duration of severe sthenic cases seldom exceeded two or three weeks. Sometimes one or other of the sub-varieties then made its appearance, but more frequently severe sthenic cases became equally severely asthenic in character. Sometimes mixed cases in which both types prevailed were met with. In severe asthenic chorea all choreic movements ceased and the patient seemed paralysed from head to foot. Rapid emaciation was the rule. Mania or dementia was not uncommon and complete mutism lasting many weeks sometimes occurred. In milder cases movements were also absent and the patient seemed paralysed in one or more limbs. Mild cases of sthenic and asthenic chorea at times became severe and the severely asthenic seldom became severely sthenic in type. The treatment of severe sthenic cases consisted in absolute rest in bed, protection from injury, and in some cases restraint of movements by splints and bandages. Chloral hydrate and bromides were the best remedies. Other sedatives were useful. Severe asthenic cases required rest in bed, abundant diet, stimulants and tonics, massage, and occasionally galvanism. The methods used in milder sthenic cases were (1) suggestion; (2) suggestion with passive movements; (3) suggestion with voluntary movements under guidance; (4) voluntary movements and exercises without guidance; and (5) incoördina-[illegible] treated on Frankel's system used in locomotor ataxy [illegible]ses and various toys and games to aid precision in [illegible]. Treatment by suggestion and encouragement of [illegible]re also useful in cases of asthenic [illegible]dinary doses did good in most [illegible] heroic doses of the drug [illegible]justifiable, and dangerous.—[illegible]ning arsenic as it was at [illegible]hat effect Dr. Guthrie had obtained by starting with large doses and continuing it only for a limited time. The treatment suggested by Dr. Guthrie was more applicable to the rich than to the poor. The methods of treatment by physical exercises would doubtless be very useful if skilled assistance was at hand. His experience of treating children by "suggestion" was not very satisfactory.—Dr. CHARLES CHAPMAN asked whether such large doses (six to eight ounces) of brandy were not as detrimental to children in other ways, even if they did good for the disease.—Dr. ALEXANDER MORISON asked whether Dr. Guthrie had noticed any relation between the type of case and the incidence of endocarditis. He thought that those curious, fatuous, aphonic cases were relatively exempt from endocarditis. He quite endorsed the views against large doses of arsenic if continued for long, but given in a more moderate manner it seemed to have a special effect on the disease.—Dr. VOELCKER remarked that treatment must depend largely upon the pathology of the affection. Dr. Guthrie seemed to regard these cases of chorea as due to the action of a rheumatic poison on the nerve cells producing over-action. His (Dr. Voelcker's) view was that it rather removed the inhibition of the cerebral influence. If that were so the education of these children to build with bricks and play with toys was not rational. Rest seemed to him to be a more rational method so as to allow of recuperation. Residual chorea might, however, be treated by Kindergarten games and physical exercises. He had not a great belief in large doses of arsenic, but small doses seemed to influence the disease.—Dr. GUTHRIE, in reply, said that in his experience large doses of arsenic seemed to make children sick—a fortunate circumstance, for it saved them from its toxic effects. He had found that it was more difficult to get skilled assistance in private practice than in hospital. Treatment by "suggestion" and exercises must be confined to cases in which the acute stages had been got over. The use of large doses of stimulants no doubt wanted watching. As to the occurrence of endocarditis, he thought that it was less frequent in asthenic than in sthenic cases. He felt sure that chorea degenerated (or developed) into a "habit," and gradually evolved exercises were very useful in preventing the perpetration of the disorderly movements of chorea in the form of habit spasms or tricks.

Annual Oration.—Conversazione.

A meeting of this society was held on May 20th, Mr. JOHN H. MORGAN, the President, being in the chair.

Mr. F. RICHARDSON CROSS (Bristol) delivered an oration on Some Landmarks in the Progress of Medical Science. After referring to the important part played by time in the affairs of men, the orator alluded to the close of the Victorian era, the longest, most prosperous, and the most remarkable period in the history of the British nation, paying also a rare tribute to the influence of Her late Majesty. For 63 years her influence had been ceaselessly directed to uplift and purify the life of the nation. She was the living symbol of the unity of the empire and would continue to live in the undying reverence and affection of her former subjects. It was said that the Egyptians and Babylonians exposed their sick in public so that any passer-by might give his aid by former personal experience and those relieved were required to go to the temples and there record their symptoms and their cures. Before Hippocrates, early Egyptian practice was in the hands of the priest physicians. The sick attended at the temple where they were relegated to some one specially acquainted with their particular malady. The Jews probably learned their medicine from the Egyptians; their guiding principle was cleanliness, and the regulations of Moses for the public health were of more than passing interest. Greece was the motherland of rational medicine, and from the time of Hippocrates to that of Harvey it was always the medicine of the Greeks that alone commanded attention, whether it emanated from the schools of Alexandria, Rome, Bagdad, Salerno, or Paris. Homer (B.C. 1250) told of the Thessalian chieftain and blameless physician Æsculapius, and of his sons Machaon and Podalirius who acted as surgeons in the Trojan war. Pythagoras (B.C. 582) raised a school of more philosophic medicine, and the services of medical men were recognised in Greece as of high value for the welfare of the State. Many towns kept a physician for the public service and Herodotus mentions that the physician Democedes (B.C. 520), a pupil of Pythagoras, was chosen public medical officer at Ægina with a salary of a talent (£240) per annum, an income far in excess of that received by an Athenian

Ambassador of those days. He afterwards went to Athens in the same capacity and then to Samos where he received a salary of two talents. It was the master mind of Hippocrates (B.C. 460) that gathered up what was best and gave to medicine an impress of his own, teaching that careful observation and recorded facts were essential for wisdom in medical science. He denied that disease had a supernatural origin: "from God comes one disease as well as another, but nothing happens except in conformity with nature." His knowledge of diagnosis and treatment was marvellous when it was remembered how superficial was his acquaintance with anatomy, for the Greeks religiously guarded the bodies of the dead. Plato (B.C. 427) and Aristotle (B.C. 384) were next referred to. The former seemed to have but a poor opinion of medical men, but Aristotle, a pupil of Plato, was a member of a medical family and educated as a physician. He founded a school of anatomy at Alexandria where anatomy was first studied by dissection. His plans and methods of classification were copied 2000 years afterwards by Cuvier. For centuries the Alexandrian school was the focus of the intellectual life of the world. Hérophilus and Erasistratus (about B.C. 300), Philoxemus and Ammonius were among the workers there. The orator then passed briefly to consider the various schools of teaching which sprung up—the Rational or Dogmatic school of Hippocrates, the Empirics, the Methodists, and the Eclectics. In the second century before Christ Marcus Portius Cato, the censor who strove to stem the tide of Greek luxury, gave some useful surgical rules in his "De Re Rustica." The first physician of eminence who practised in Rome was a Greek, Asclepiades (128 B.C.), a friend of Cicero. He left behind him a number of worthless imitators who desired to be judged by the luxury they displayed rather than their knowledge, and a few more capable pupils who developed the methodic system. In Rome medical men seemed to have had but a poor social position and most of them were foreigners or freedmen. The calling was considered unworthy of a Roman citizen, at any rate, until the first century of the Christian era. In the Roman period the physician (*medicus clinicus*) and the surgeon (*chirurgicus*) seemed to have been clearly distinguished. Celsus was the greatest man associated with Roman surgery, but it was doubtful if he ever operated, or, indeed, if he was a medical man at all. Galen (A.D. 131 to 201) was a Greek but went to Rome. Subsequent Greek and Roman authors were mainly compilers from his writings. After his time the practice of dissection was apparently given up for centuries. Amidst the general disregard of learning in Europe during the Middle Ages the practice of the healing art was maintained chiefly among the religious orders, where it was much interwoven with augury, divination, cheiromancy, astrology, and alchemy, excepting perhaps among the Benedictines. In their hands the practice of physic became so lucrative that an ordinance of Pope Innocent III. debarred the clergy from undertaking surgical operations in 1215. This threw the practice of surgery into the hands of the barbers and bone-setters who practised it mechanically and without any special training or anatomical knowledge. About 1423 an effort was made to form a conjoint faculty of medicine and surgery, but it was short-lived. The surgeons, however, continued to work together, and in 1435 the Guild of Surgeons was founded, the College of Physicians being founded later. After tracing the evolution of medicine and surgery in the succeeding centuries the orator concluded by adverting to the usefulness of the study of modern languages.

Mr. CHRISTOPHER HEATH proposed, and Mr. HENRY MORRIS seconded, a cordial vote of thanks to the orator, which was carried by acclamation, and Mr. RICHARDSON CROSS briefly replied.

The meeting was then resolved into a conversazione.

PATHOLOGICAL SOCIETY OF LONDON.

The Morphology of the Genus Streptothrix.—An Unusual Case of Intestinal Obstruction.—Case of Calcified Pericardium.—Thrombosis of the Lateral Sinus in General Tuberculosis.—Sarcoma of the Suprarenal Body.—Calculi Formed on Pubic Hairs.—Annual General Meeting.

A MEETING of this society was held on May 21st, Mr. W. WATSON CHEYNE, the President, being in the chair.

Mr. A. G. R. FOULERTON and Dr. C. PRICE-JONES communicated a paper on the Morphology and General Characteristics of the Genus Streptothrix. Cultures of 25 species, 10 of which were pathogenic, were shown. These included four new species—streptothrix luteola, streptothrix leucea, streptothrix leucea saprophytica, and streptothrix erythrea. Of these the first was pathogenic, having been isolated in pure culture from a case of acute conjunctivitis with sloughing of the cornea. It was not the same organism which Dubois St. Sevrin had described under the name of streptothrix aurea as a cause of conjunctivitis. The morphology and method of development of the various species shown was considered and Mr. Foulerton and Dr. Price-Jones pointed out the reasons for placing the streptothricheæ amongst the hyphomycetes, or mould fungi, rather than amongst the bacteria, or fission-fungi. The writers who had regarded them as highly pleomorphic fission-fungi had been misled by the examination of single species in which the true course of development was difficult to follow. An examination of a series of species left no doubt in the minds of Mr. Foulerton and Dr. Price-Jones but that the original classification of Hartz, which placed these species amongst the higher fungi, was the correct one. Out of the 10 pathogenic species examined, two, streptothrix Nocardii and streptothrix capræ, were found to be both acid-fast and alcohol-fast, whilst two, streptothrix Eppingeri and the streptothrix described by Sabrazès and Rivière, were found to be acid-fast, but the carbol-fuchsin was discharged by a subsequent washing in absolute alcohol. Lantern slides illustrating the fragmentation of the mycelium and the development of spores by segmentation were exhibited; and an exhaustive table was submitted comparing the 25 species examined by Mr. Foulerton and Dr. Price-Jones as regards their growth on gelatined on inspissated horse-serum, their diastatic action on starch, their growth on nutrient malt-agar (the best medium to grow them upon), on potato and in alkaline milk, their thermal death-point, and their staining reaction to the Ziehl-Neelsen method. No doubt but that the species of streptothrix described by Afanassiew and others in certain cases of human disease was identical with streptothrix bovis communis, which was the cause of the common actinomycosis of cattle. But many other species had been met with and these were briefly referred to. Possible sources of infection for man were to be found in cereals which were known to harbour fungi of this sort; absolute proof of infection of man from this source was, however, still wanting. Some of these fungi had been found in grass.

Dr. HUGH THURSFIELD narrated an Unusual Case of Intestinal Obstruction. The patient was a boy, aged two and a half years, who was admitted to the Hospital for Sick Children, Great Ormond-street, with symptoms of intestinal obstruction which had set in three days before admission. From birth he had had attacks of vomiting which recurred every four to six weeks. He was operated on, but without any definite obstruction being found. At the post-mortem examination the mesentery was discovered to have only its primitive short attachment to the spinal column, while the colon ran behind instead of in front of the small intestines. The anomalous conditions appeared to be capable of explanation by a reversal of the normal twist of the gut from left to right, which occurred in the process of development at a certain period of intra-uterine life.

Mr. ERNEST JONES (introduced by Dr. J. ROSE BRADFORD) exhibited a specimen of Calcified Pericardium taken from the body of a man, aged 60 years, who had died in University College Hospital in November, 1900. He had never had rheumatism, but had suffered from dropsy for 10 years. There was enormous enlargement of the præcordial area of dulness but no definite murmur to be heard. There was left hemiplegia. He died from pneumonia and at the necropsy the most noticeable feature was the presence of free spaces outside the heart, between it and the pericardium, filled with blood-clot. The walls and cavities of the ventricles were of about the normal size, but the auricles were enormously dilated and their walls thinned, especially the left. The true condition was not diagnosed during life, the case being looked upon as one of great dilatation of the heart. No cause could be suggested for the hæmorrhage into the pericardium. Mr. Jones had collected records of 58 cases of calcified pericardium. The condition seemed to be twice as common in the male; the average age was 48 years, whereas adherent pericardium was equally common in the two sexes and the average age was 38 years. There seemed to be no signs diagnostic of calcified pericardium during life. There had been no cardiac signs at all in a quarter of the cases, and the diagnosis even of adherent pericardium had only been made once in the 58 cases. The patient occasionally lived for 19 or 20 years. There was no valvular lesion at all in half the cases and it had only been slight in two-thirds of the remainder. The probable causes of the condition were discussed. Suppurative pericarditis and tubercle were often given as the chief causes, but in only 13 per cent. of these cases the lesion was probably the result of the former, and not one case could be clearly traced to tubercle. Mr. Jones was indebted to Dr. J. Rose Bradford for permission to publish the case.

Dr. J. FAWCETT exhibited a specimen of Thrombosis of the Lateral Sinus and Cerebral Veins in a case of General Tuberculosis. The patient was a boy, aged three and a half years, who died from general tuberculosis of the subacute type. There were caseous mediastinal and bronchial glands with caseous broncho pneumonia and tuberculosis of the abdominal viscera. The brain showed extensive thrombosis of the veins over the ascending frontal, parietal, and temporo-sphenoidal lobes on the right side, and the lateral sinus was also completely thrombosed as far as the jugular foramen. There was no clot in the internal jugular vein. The cerebral substance corresponding to the vascular area affected was in a condition of acute red softening with many hæmorrhages present. There was no thrombosis in any of the arteries or of the other sinuses nor any local source of infection within the cranium, such as ear disease. The extensive softening with hæmorrhages pointed to an infective origin. In most of such cases thrombosis was due to marasmus.

Dr. FAWCETT also exhibited a specimen of Sarcoma of the Right Suprarenal Body removed at the necropsy on a woman, aged 30 years. The growth measured 26 by 21 centimetres and was adherent to the under surface of the liver. Satisfactory microscopical preparations had not yet been obtained on account of the friable nature of the tumour. There were two specimens of suprarenal sarcoma in the museum of Guy's Hospital.

Dr. HUGH THURSFIELD exhibited the Left Femur from a case of Infantile Scurvy occurring in a boy, aged 13 years, hardened in formalin so as to preserve the colour.

Mr. THOMAS BRYANT exhibited several Calculi which had been formed on Pubic Hairs.

The annual general meeting was then held. Certain alterations in the rules, as recommended by the council, were put to the meeting and carried, the PRESIDENT explaining that their object was to abolish the distinction between resident and non-resident members.—The annual report, read by the SECRETARY, showed the society to be in a prosperous condition. The institution of the laboratory meetings had been a success. The future work of the society would be promoted by its division into four sections. The Secretary also read the treasurer's report, which showed a satisfactory balance at the banker's. The society had arranged to pay less rent for the use of the room for meetings.—The adoption of these reports was carried.—Sir R. DOUGLAS POWELL, Bart., proposed, and Mr. S. G. SHATTOCK seconded, a vote of thanks to the retiring officers and the council.—Mr. D'ARCY POWER proposed, and Dr. W. BULLOCH seconded, a vote of thanks to the retiring secretary, Mr. C. A. Ballance.

At the close of the ballot it was announced that the officers and council for the ensuing session, as nominated by the council, had been elected as follows:—President: Mr. W. Watson Cheyne. Vice-Presidents: Dr. E. Crookshank, Dr. W. D. Halliburton, Mr. V. A. H. Horsley, Dr. E. Klein, Dr. S. Martin, Dr. F. W. Pavy, Dr. J. F. Payne, and Mr. J. H. Targett. Treasurer: Dr. Sidney Coupland. General Secretary: Dr. J. Rose Bradford. Sectional Secretaries: Dr. H. Morley Fletcher, Mr. A. G. R. Foulerton, Dr. T. Grigor Brodie, and Dr. A. E. Garrod. Council: Dr. James Galloway, Dr. C. D. Green, Dr. H. D. Rolleston, Dr. N. Dalton, Dr. G. F. Still, Dr. T. W. P. Lawrence, Mr. D'Arcy Power, Dr. F. W. Andrewes, Dr. W. Bulloch, Dr. John McFadyean, Dr. Allan Macfadyen, Mr. H. G. Plimmer, Mr. W. C. C. Pakes, Dr. W. S. Lazarus-Barlow, Mr. W. Edmunds, Dr. E. H. Starling, Mr. C. A. Ballance, Dr. F. G. Hopkins, Dr. V. Harley, and Dr. S. G. Hedin.

LIVERPOOL MEDICAL INSTITUTION.

Perforated Gastric Ulcer.—"Malignant Polypus."—Tetanus.—Friedreich's Ataxia.—Family Muscular Atrophy.

AN ordinary meeting of this society was held on May 9th, Mr. EDGAR A. BROWNE, the President, being in the chair.

Mr. ROBERT JONES related a successful case of operation for Perforated Gastric Ulcer. The patient, a male, had an attack of hæmatemesis two and a half years previously. On Dec. 19th, 1900, whilst taking lunch, he was suddenly seized with great pain. When seen at 10 P.M. his pulse was rapid, the abdomen was slightly distended, there was an absence of liver dulness, and the patient was suffering great pain. He was removed to hospital and two hours later he was operated upon, an ulcer being found on the anterior surface of the stomach at the pylorus. The opening was closed with Lembert sutures and a piece of omentum was stitched over the suture line. Mr. Jones stated that this was his third case. In two of the cases the patients had recovered. The other patient had died on the fifteenth day from the formation of a sub-diaphragmatic abscess due to an infection of the lesser omentum, caused probably by irrigation of the abdomen.—Mr. RUSHTON PARKER said that it had happened to him also to have two early cases operated upon on the same evening as the accident and resulting in success, while in another, after three days' delay, death resulted owing to suppuration beneath the diaphragm which could not be recognised at the operation.

Mr. CHAUNCY PUZEY showed a man, aged 61 years, whose right superior maxilla he removed in January last for "Malignant Polypus" growing from the Antrum. The line of incision was Ferguson's and the result was a good instance of the very slight disfigurement which that extensive wound often leaves. Before the operation the origin of the polypoid growth, which filled the right nares (anterior and posterior), was doubtful, as there was no alteration in the shape of the jaw either in the cheek or the mouth, but there was obstruction of the lacrymal duct. The principal complaint made by the patient was that he was suffering from incessant and often agonising pain shooting up behind the eye and right forehead to the top of his head. This was readily accounted for when it was found during the operation that all the posterior wall of the antrum had disappeared, together with a considerable portion of the floor of the orbit and a portion of the ethmoidal cells, this being apparently the result of pressure (not infiltration) by the growth. The growth was reported to be "sarcoma, spindle-celled, with a considerable amount of interstitial tissue in parts, not very malignant."

Dr. D. SMART related a case of Tetanus, successfully treated by Hypodermic Injections of Carbolic Acid. The patient, a male, aged 33 years, who had been drinking heavily and lying about a stable, had a chronic ulcer on each shin which was covered with a filthy dressing. On admission to hospital he had a severe tetanic spasm, the back, the jaws, and the legs being affected. The treatment was copious liquid nourishment by means of funnel and tube, one third of a grain of morphia, and bromide and chloral every four hours, the ulcers being scraped and dressed with 1 in 40 carbolic lotion. Next day the spasms occurred every half hour, and 10 cubic centimetres of antitoxin were administered. The following day he seemed worse; 10 cubic centimetres of antitoxin were given again, but later his condition was so serious that 20 minims of a 1 in 50 solution of carbolic acid were injected and repeated every three hours, after which improvement set in. In five days he was practically well, having had 28 injections in 84 hours (in all 11½ grains of pure carbolic acid). The conclusions were: (1) that the filthy dressings of the ulcers illustrated the anaerobic nature of the tetanus bacillus; (2) that the doses of tetanus antitoxin (10 cubic centimetres given twice) were probably too small; (3) that the hypodermic injections of carbolic lotion produced neither local irritation nor carboluria; and (4) that although chloral and bromide were administered throughout the illness recovery was attributed to the use of carbolic acid.—Mr. R. W. MURRAY mentioned two cases of tetanus that had been under his care. In one the symptoms commenced 14 days after a burn of the right leg and side, the first indication of the disease being right facial paralysis. Death occurred within 48 hours. The other was that of a gardener, who cut his finger and the symptoms, which were of the subacute type, were first noticed nine days later. He was treated with anti-tetanic serum, having in all 50 cubic centimetres, and he recovered.—Dr. T. R. BRADSHAW referred to a case brought before the society eight years ago in which recovery had ensued on the administration of chloral and bromides. He doubted whether the recovery in Dr. Smart's case could be attributed to the therapeutic measures employed. The case was evidently not a severe one and had lasted some days before the injections of carbolic acid were used, and when a case had lasted a week or 10 days it commonly ended in recovery.—Mr. G. P. NEWBOLT considered that patients the subjects of acute tetanus usually died in 48 hours after the onset in spite of treatment, whether by antitoxin or carbolic acid injections. In the cases of so-called chronic tetanus the patients got better as a rule, though in many of them spasms were very severe and it was often difficult to draw the line between the acute and the chronic case.—Mr. RUSHTON PARKER classified cases of tetanus as acute and chronic The former commonly lasted no more than 24 or 48 hours; the latter a week or more, sometimes many days The period of incubation was of too uncertain a duration to rely upon as an indication of acuteness or chronicity. The mortality of acute tetanus was understood to be 100 per cent however treated, while that of chronic tetanus did not exceed 50 per cent under expectant management. If by successful treatment they could diminish the mortality to a notably lower figure in chronic tetanus, that was about all they were at present entitled to hope for. His own cases had all been acute and rapidly fatal with one exception, a boy, aged 14 years, in whom he had recognised chronic tetanus, and had injected antitoxin with, he believed, curative effect, or at least apparent relief. But in Dr. Smart's case it seemed that relief was produced by carbolic injections In Mr Parker's opinion it did not seem that "severity" of symptoms could be taken as a measure of the acuteness, as in his chronic case the severity of pain and rigidity seemed equal to anything that he had seen even in acute and fatal cases.

Dr. R CATON read a report on Three Cases of Friedreich's Ataxia in One Family. No evidence existed of antecedent nervous disease in the family and there was no history of syphilis or of excess in alcohol Ataxia, nystagmus, impairment of speech, and loss of tendon reflexes, occurred in all of the cases. There was slow tremor in two of them and lateral spinal curve, talipes equinus, and dorsal flexion of the hallux occurred in one case. None of the other symptoms characteristic of tabes were present. The disease appeared to have commenced in the three cases at the ages of 11, 14, and 17 years —Dr BRADSHAW showed a fourth case of Friedreich's ataxia in a girl, aged 16 years. There was no neuropathic family history, neither was there consanguinity in the parents. No other members of the family were affected. The symptoms began a year ago with unsteadiness in walking which had progressed. There were nystagmus, loss of knee jerk, and unsteadiness when standing which was not increased when the eyes were closed. Sensory symptoms were absent and there was no marked interference with articulation.

Dr. W. B WARRINGTON described a rare form of Muscular Atrophy, known in this country as the hereditary type of peroneal atrophy first described by H. Tooth and Charcot and Marie. He pointed out the characteristic features of this affection—viz, an atrophy beginning in the muscles of the outside of the leg and then invading the small muscles of the hand The knee jerks were absent and the electrical reactions were peculiar inasmuch as muscles which were capable of good voluntary movement could be stimulated only by very strong currents and then they only reacted feebly. Dr. Warrington discussed the literature of the subject, especially the papers by Hoffmann and Bernhardt, and pointed out that when dealing with hereditary nervous affection the symptomatology tended to extend beyond the well defined lines of the classical description —Mr ROBERT JONES remarked on the surgical treatment of this case of Tooth's paralysis which he had had under his care. Both feet were affected, the left being the worst. The foot was in equino varus with limitations of ankle movement and a general rigidity [illegible] paralytic type There [illegible] the joints of the foot [illegible] contraction of the plantar fascia. No spasm was present, but there was contracture of tendons The tibialis posticus, the tendo Achillis, and the extensors of the toes and the deep ligaments of the sole were divided, and the foot was forcibly wrenched into position. The left foot gave great trouble from a sharp flexion angle formed by the metatarso phalangeal row on the plantar aspect, and was treated by ex section of each prominent phalangeal base The patient now walked quite comfortably —Dr. BRADSHAW said that the family history did not seem to support the view that the different developmental neuropathies merged into each other, but the contrary. A family affected by the peroneal type of paralysis was not affected by Friedreich's ataxia, and vice versa The hereditary weakness appeared to be inherent in certain tracts of the central nervous system and not in that system as a whole.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases.

THE seventh ordinary meeting of this society was held on May 1st, Dr. A. G MILLER, the President, being in the chair.

Dr NORMAN WALKER showed a case of Bazin's Disease in a girl, aged 16 years, who came to the infirmary about eight weeks before with an eruption on one leg extending up to the waist and looking something like ecthyma The lesions were deeper, however, and had a more chronic appearance than the lesions of that disease and all cultivations from them proved to be sterile (unlike ecthyma) The patient had markedly enlarged cervical glands and some dulness at one apex with cough and expectoration. The case at that stage was the first definite example which he had seen of the condition described by Kaposi as acne scrofulosorum During her stay in hospital there was no great improvement, but soon after she went home the condition got much worse and she returned with the lesions advanced and the condition now closely resembled that known as Bazin's disease.

Dr. WALKER also showed two other cases which he exhibited mainly for the interest attached to their treatment. The first was a case of Lupus of very extensive distribution. This had been over the face treated for the past five months with weekly applications of the x rays, the exposures latterly lasting for 20 minutes The patient was far from well, but the improvement was very marked and the increase in comfort was alone worth the trouble A peculiarity which he had noted in connexion with the treatment of such cases by the x rays was shown in this patient—namely, that the disease had improved to a greater extent behind the neck than in the front, though the rays were only used in front. The rays seemed to be more active at their points of emergence than at their entrance and their application was absolutely painless and gave rise to no ulceration. During a recent visit to the London Hospital, where he had had an opportunity of seeing both varieties of the light treatment, Dr. Walker was greatly impressed by the success attendant on the much less advertised x ray treatment. While there on a previous occasion he had seen a further use of the rays in connexion with the treatment of rodent ulcer the results of which were so good that it was almost necessary to see to believe. Large cavities occupied by inoperable cancers had filled up and healed with a smooth scar. The treatment had been commenced on two of Dr. Allan Jamieson's patients, and he showed one of them (a man) who had had six exposures to the rays and already the ulceration had greatly improved.

Mr. SHAW M'LAREN demonstrated Schlangintweit's Cystoscope and showed the advantages which this instrument possessed over other similar varieties

Dr T. V. PATERSON showed a most instructive series of sections through Diseased Eyeballs mounted in Gelatin. He also showed a large number of lantern slides illustrating Eye Diseases

Dr. WILLIAM RUSSELL read a paper on Arterial Hypertonus and Arterio sclerosis, their Relations and Significance, with a lantern and microscopic demonstration. The paper will be published in our columns shortly.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF STATE MEDICINE.

Mortality of Infants from Improper Feeding —Tuberculosis in Cattle.

A MEETING of this section was held on April 26th, Sir C. A CAMERON, the President, being in the chair.

Mr. GEORGE P COPE read a paper on the Mortality of Infants under One Year from Improper or Imperfect Feeding, with Suggestions for Public Instruction to Parents and Nurses on the subject, enumerating a list of diseases, together with the number of deaths caused by the same (made out from the Registrar General's returns of registered deaths in Ireland for the years 1890 to 1899) which could be considered to be directly or indirectly due to improper feeding. For the last five years—1895 to 1899—there was an increase of 2188 deaths compared with the previous five years —1890 to 1894. He pointed out that a great number of deaths under the headings of debility, inanition, convulsions, and dentition were registered as uncertified, and suggested that registrars of deaths who were medical men should try to ascertain from the informants what led up to these symptoms and to register the deaths under proper diseases. Mothers brought their infants to dispensaries suffering from the effects of improper feeding; these infants were fed on all kinds of starchy and animal food from pure ignorance. At the time of registration of birth registrars should be instructed to give to every informant a paper containing rules in relation to the proper feeding and general management of infants, &c. This document should be provided by the Government and issued to the registrars at the time they received their supply of vaccination papers from Charlemont House. Mothers who could not suckle their children throughout the early months of infancy ought to be encouraged to take necessary precautions (especially during the summer months) in feeding their infants, and it would be advisable to embody in the instructions certain directions as to how to sterilise milk.—Mr. Langford Symes said that a child might get a large amount of food but no nourishment, and a child might be starving when being fed on the richest kind of food which it was perfectly unable to digest. In children who had died from this cause it had been found that in the later stages the beautiful structures for digestion and absorption were completely abolished and the intestines were rendered like a hose or indiarubber tube, the food going in at one end and rushing out at the other.—Professor E. J. McWeeney said that, speaking from the pathological point of view, he was in great ignorance as to the exact causation of death in many cases certified as marasmus, tabes mesenterica, and the like At his own hospital it was the rarest possible thing to get a necropsy of a child under the age of five years—not one in the year. He considered that to make themselves absolutely certain as to the true cause of death an attempt should be made by the medical profession to obtain necropsies of young children by an expert in as many cases as possible. There was a danger in giving children what he might call pseudo-sterilised milk—milk Pasteurised, raised to a point below boiling point, in which lactic fermentation had been checked, but spore forming organisms were still present The lactic organisms being done away with the milk did not turn sour in the ordinary way, but the spore-forming organisms, as Flugge had shown, produced toxic peptones or albumoses which when given to animals caused diarrhœa, convulsions, and death. After Pasteurisation or sterilisation of milk it should be given to the child at once or kept at such a low temperature by being placed in cold water as to prevent growth.—The Registrar-General said that every effort in the direction indicated in Mr. Cope's valuable paper would have his most hearty coöperation. Any action must originate with the Royal College of Physicians of Ireland, and the approval of the Local Government Board of Ireland must be obtained.—Mr. A. J Horne said that, of all places, in Dublin the women took most care of their children Some of the lying-in hospitals had issued printed rules to parents, but they either threw them into the fire or if they read them they thought they knew better —Dr Ninian Falkiner presented statistics showing that in 1899, among children under one year old, the death-rate per 1000 births was 108 in Ireland and 163 in England; in 1900 the corresponding figures were 108 in Ireland and 154 in England —Mr. Edgar Flinn, Dr Herbert Byrne, the President, and others also discussed the paper.

Professor McWeeney read a paper on the Prevalence, Character, and Bacillary Richness of Tuberculous Lesions amongst Irish Dairy Cattle. His observations referred to the highest class of animal, living under ideal hygienic conditions, and kept on grass during the summer. Towards the end of lactation they were tested with tuberculin and subsequently they were sold for slaughter. A careful post-mortem examination was made and the results were controlled by the microscope, bacilli being patiently sought for in exudates and in sections of tissue. Out of 88 animals 46 were found to be tuberculous and 40 were free; two were doubtful The commonest seat of the lesions was in the posterior thoracic and bronchial lymph glands, which were more or less affected in 90 per cent. of the tuberculous animals. The lungs were attacked in 63 per cent.; the liver was much less frequently implicated, with only 8 per cent. of cases; whilst the hepatic lymph glands were attacked in 12 per cent. The alimentary canal was very rarely affected, not one case of tuberculous ulceration of the intestines being noticed and only one case of tuberculous disease of the mesenteric glands. Not a single case of tubercle of the udder was observed. The infection seemed to have been introduced through the respiratory passages in the vast majority of cases, and the relative freedom of the intestinal tract was very remarkable. Tubercle bacilli were extremely scarce, but material in which he had failed to demonstrate the bacilli microscopically had produced in guinea-pigs acute tuberculous disease with numerous tubercle bacilli.

Edinburgh Obstetrical Society.—A meeting of this society was held on May 8th, Dr. F. W. N. Haultain being in the chair.—The following specimens were shown:—Dr. J. W. Ballantyne: Two Deformed Pessaries. They were of the Albert-Smith shape and made of vulcanite; after remaining in the vagina for six weeks they became of a wide oval shape and the vaginal curve was undone. It was suggested that it was due to insufficient care in the cooling after being bent during their manufacture.—Dr. J. Haig Ferguson: Ovaries removed for Double Papillomatous Disease—Dr. Haultain: A Gravid Uterus with Fibromyoma removed by Abdominal Hysterectomy and a Thin-walled Dermoid Ovarian Tumour which had ruptured on three occasions previously to removal—Professor J. A. C. Kynoch (Dundee) read notes on Primary Carcinoma of the Female Urethra. The patient complained of slight irregular hæmorrhage and a vulvar tumour of three months' duration. There was no pain or great difficulty with micturition. Her previous health had always been good; she had passed through 12 labours. The urethral orifice was found to be dilated to the size of a sixpence; the edges were hard, ulcerated, and broke down easily on manipulation. The floor and lateral walls of the urethra were indurated from cancerous infiltration which extended nearly to, but did not involve, the neck of the bladder and internal sphincter. Other pelvic organs were healthy. Microscopically the growth consisted of atypical epithelium with abundant cell nests. With the guidance of a catheter the lower two-thirds of the urethra were excised by circular incision, and the edges of the remaining third were stitched to the edges of the portion of vestibule left. The patient remained comfortable for three months, when the occurrence of incontinence of urine for the first time showed extension of the disease backwards with involvement of the sphincter. No further treatment was consented to and the patient died 10 months later. On post-mortem examination the disease was found to be confined to the lower part of the bladder, there being no involvement of the surrounding parts. The urethra was one of the rarest organs ever affected with carcinoma. The number of published cases of affection of the female urethra did not exceed 30 and that of the male urethra only about 12 The urethra was exposed to conditions which were supposed to predispose to cancer. Fritsch suggested that the constant washing which the urethra received from the passing urine in conjunction with the consequent frequent dilatation and contraction of the canal prevented the cancer cells from obtaining that fixation necessary for growth and development. This probably accounted for the rarity with which the urethra was involved in cancer of the vulva even in an advanced stage. Unfortunately, this washing process was unable to prevent the invasion of the urethra by the gonococcus. Primary cancer of the urethra had its origin most frequently in the epithelium or glands of the mucosa where it formed either a vascular growth or a hard nodulated sessile tumour spreading along the floor of the urethra towards the neck of the bladder and eventually, by deeper extension, producing a urethro-vaginal fistula. The peri-urethral, or more correctly the vulvo-urethral, form had its origin in the epithelium at the junction of the urethral orifice and vestibule, from which it spread spirally round the urethral wall; it thus differed from ordinary vulvar cancer which spread superficially to adjacent structures, the urethra being seldom involved. Urethral cancer occurred mostly after 40 years of age; out of 27 cases four were under 40 years; three between 40 and 50 years; 10 between 50 and 60 years; nine between 60 and 70 years; and one over 70 years. Secondary cancer of the urethra, although more frequent, was not often seen. Gusserow found in 311 cases of uterine cancer that the urethra was only affected in 56 as compared with 128 of extension to the bladder The symptoms associated with urethral cancer were often slight at first, as shown in pruritus and painful micturition When the disease was advanced a tumour or incontinence of urine was complained of The treatment had not given very favourable results, out of 27 cases only two were reported free after three and six years Zweifel reported a case where the neck of the bladder was involved and excised, the parts were then sutured and a vesico abdominal fistula established by suprapubic cystotomy after the method of Witzel Goldberg reported a case where the vagina was closed by episiokleisis after establishing a recto vaginal fistula In all these cases there was recurrence within 18 months —Dr J B Buist gave an address on the Art of Vaccination Vaccination might be performed by puncture or simply by a prick, this might be done with a needle or a sharp knife, or it might be repeated over a scattered area or in close proximity to each other Another method was by incision, when superficial cuts were made in the epidermis extending to its deeper layer The lymph was inserted into the cutis because the apices of the papillary layer of the cutis were exposed Another method was by lacerations and abrasions, here the epidermis was torn through by such instruments as rakes or machines set with needles The epidermis was cut or scraped off the skin Dr Buist considered a lancet after the type of the bleeding lancet the most perfect instrument for vaccination that could be employed The area of the vesicles produced was proportional to the area of the incisions, uniform results could be obtained by incisions of the same size Dr Buist made his only one square line for each insertion and vaccinated at four points Adults should be vaccinated with the same care as infants and they should not be vaccinated more severely and not in any larger area Only a small insertion was required and if the epidermis was scratched away at this point then the vaccine vesicle would have no covering and thus be imperfect During the wide spread revaccination recently in Edinburgh Dr Buist inspected 1622 children under 14 years of age in the elementary schools Out of these 800 were vaccinated with one mark, 735 in two places, 43 in three places, and 44 in four places This showed that the usual Edinburgh method was to make one or two marks Out of these cases 351 were severe and mostly in those with one or two marks, none where four vesicles had been produced These cases were it must be remembered, second vaccinations and below 14 years, even below 10 years The severe cases showed that either the protection given in infancy was of a very evanescent character or that something might be wrong with the method of performance Experts had a gauge by which a good vaccination was calculated, if there was only one mark it should equal half a square inch, if two then each should be half that area, and so on with more But many of the cases examined were twice the approved size and must have been made by scraping off or abrading the epidermis over too large an area Lymph was an irritant and if spread over too large an area it might cause such exudation as to cause compression of the afferent vessels and necrosis from stoppage of the blood supply to the centre of the vesicle If Dr Buist used any dressing it was a powder during the second week, such as zinc powder or emol kelect A dressing of cotton wool, antiseptic or otherwise, besides interfering with the normal action of the lymph, was apt to affect the normal course of the disease as it acted as an incubation and accelerated the process Shields of all kinds were very objectionable As regards calf lymph, glycerine kept it from putrefaction but it did not keep it active, it deteriorated in a month That usually sold was composed of 20 parts lymph, 40 parts glycerine and 40 parts water The probability was that this lymph had not the same protective power, as in the recent investigation 80 per cent of the children under 14 years of age could be revaccinated and a great number of these were under 10 years of age, so that periodic revaccination had become necessary

SOCIETY OF ANÆSTHETISTS —A meeting of this society was held at 20 Hanover square, W, on April 19th, Dr J F W Silk, the President, being in the chair —Dr Dudley Buxton read a paper on the Advisability of the Inclusion of the Study of Anæsthetics as a Compulsory Subject in the Medical Curriculum [1]—In the discussion which followed Mr Walter Tyrrell said that he was doubtful as to the necessity for lectures At St Thomas's Hospital the students in rotation gave the anæsthetics under his supervision In addition a good deal of teaching was done in the special departments by his colleagues —Mr E Willett thought that it was very important that the students should attend regular lectures At St Bartholomew's Hospital, in addition to these lectures, a special class was told off every month for instruction in anæsthetics; they were mostly senior students who were not doing any other ward work In his opinion the defect of this plan was that it did not provide sufficient experience for the student and he did not think that a final practical examination was possible —Dr R J Probyn-Williams said that at the London Hospital the students were required to attend three lectures and then to receive practical instruction before they could obtain a hospital appointment He thought that systematic teaching was of great importance —Mr Harvey Hilliard raised the question whether it was desirable for the society to approach the General Medical Council on the subject —Dr Harold Low thought that there should be a recognised system of teaching, that every student should be bound to receive instruction, and that a few lectures should always be given —Dr Sampson Handley said that at Guy's Hospital there had for some years been special appointments of "clerks to the anæsthetists," and practically every man received systematic instruction in the subject —Mrs Dickinson Berry said that at the Royal Free Hospital a course of six lectures was given every term and "clerks to the anæsthetists" were appointed to hold office every month —Mr P Noble said that at the Middlesex Hospital, excepting those competing for a resident appointment, the students were not obliged to take out a course on anæsthetics —Dr G B Flux and Dr Augustus H Cook also spoke —The President said that he believed that he could claim to have introduced the systematic teaching *at present adopted* at the *Royal Free Hospital* and at Guy's Hospital to which reference had been made, and a somewhat similar system was at present in vogue at King's College Hospital With regard to Dr Buxton's suggestions there were one or two matters of detail to which he should like to refer In the first place, he considered that the teaching in nitrous oxide ought to be considered apart from the teaching in other anæsthetics, it was hardly possible to give adequate instruction in this branch of the subject in a general hospital In the second place, although he was strongly of opinion that a short course of lectures was essential, yet a considerable degree of latitude should be permitted with regard to clinical teaching *For instance*, what was *possible* in the matter of "clerks to the anæsthetists" in large schools such as St Bartholomew's, the London, and Guy's, was not always obtainable at the smaller schools, but the clinical instruction in these latter was not of necessity inferior —Dr Dudley Buxton replied —The meeting then resolved itself into the annual general meeting, and the following were elected officers for the ensuing year, viz —President Mr Walter Tyrrell Vice President Dr Dudley W Buxton Treasurer Mr George Eastes Elected Members of Council Dr Silk, Dr Probyn Williams, and Dr W D Arnison (Newcastle) Secretaries Dr Low and Dr Flux Auditors Mr Harvey Hilliard and Dr Herbert J Scharlieb

PATHOLOGICAL SOCIETY OF MANCHESTER —A meeting of this society was held on May 8th, Professor Dreschfeld, past President, being in the chair —Professor Dreschfeld described preparations from a Tumour of the Suprarenal Capsule —Dr W E Fothergill and Dr T M Scott described a case of Fibro myoma of the Round Ligament —Dr Marsden and Dr F Craven Moore showed a Preparation of Tuberculosis of the Peritoneum in a woman, aged 33 years The disease was associated with fever of a continued type, considerable adiposity, and marked bronzing of the skin The peritoneum was generally thickened over the parietes and viscera, whilst the omentum formed a solid flat tumour covering the front of the abdomen and having a few small hæmorrhages in its substance On the under surface of the diaphragm were a number of porcelain like plaques varying in size from one eighth to one third of an inch in diameter In section they showed very well the structure of the tubercle with multinuclear giant cells at the periphery —Dr Melland showed Blood films from a case of Leucocythæmia stained by different methods The best results were obtained by fixing the film with formalin vapour for three minutes, staining in 1 per cent watery solution of eosin, washing and then staining with saturated aqueous solution of methylene blue. This method clearly differentiated the nuclei, eosinophil, neutrophil, and basophil granules, and also the malarial plasmodia and nucleated red corpuscles.—Dr. A. Brown and Dr. Craven Moore described a case of Primary Carcinoma of the Gall-bladder and showed specimens. The patient, a female, aged 64 years, became ill with pain and tenderness in the region of the gall-bladder and bilious vomiting. A month later she became intensely jaundiced and she succumbed two months from the onset with symptoms of cholæmia. At the necropsy a firm mass of new growth was found involving the upper part of the gall-bladder and the adjacent liver tissue. The gall-bladder was shrunken and it contained two small cholesterin calculi. Secondary nodules of new growth were found in the liver and in the hilus involving there the hepatic ducts. Microscopically the growth was a scirrhous carcinoma originating from the mucosa of the gall-bladder.—Dr. Fothergill demonstrated Casts of the Uterus in so called Spurious Abortion and in Dysmenorrhœa.

---

[1] Reported in the Brit. Med. Jour, April 27th, 1901.

Laryngological Society of London.—A meeting of this society was held on May 3rd, Dr. Cresswell Baber, the President, being in the chair.—Dr. Barclay Baron reported on a case of Laryngeal Growth shown at a previous meeting which had now proved to be malignant.—Mr. Mark Hovell brought before the society a man, aged 61 years, from whose left vocal cord a large Epithelioma was removed by endo laryngeal operation in 1886 and again in 1887, since which there had been no recurrence. He also showed a drawing of the growth as seen in the larynx before operation and sections of the parts removed.—The case was discussed at some length by Mr. de Santi and Sir Felix Semon, to both of whom the malignancy of the growth seemed doubtful.—Dr. F. Spicer showed a female, aged 15 years, with Absorption of the Cartilaginous Septum due to pressure from nasal polypi. The loss of cartilage was thought to be due to an abscess —Dr. Lambert Lack showed a case of Unusual Laryngo-Pharyngeal Tumour in a woman, and a Microscopic Section of the Growth removed. The growth, which was attached to the mucous membrane over the cricoid cartilage, was removed by external operation. It was reported to be a mixed cell sarcoma —Dr. Lack also showed a specimen of Bony Occlusion of One Nostril —Mr. H. W. Carson showed a case of Multiple Papilloma of the Larynx —Mr. Charles Parker showed a case of Pachydermia Laryngis which had been previously shown and thought by some to be tuberculous.—Dr. Dundas Grant showed a case of Tumour of the Base of the Tongue in a young Female. The diagnosis was thought to rest between sarcoma and thyroid tumour.—Dr. A Thorne showed a case of Ulceration of the Tip of the Tongue, probably of a Malignant Nature.

Birkenhead Medical Society.—At the annual meeting of this society, held on May 10th, Dr. J. F. Blood, the President, being in the chair, the following office-bearers and members of committee for the ensuing year were elected:—President: Dr. J. Pinkerton. Vice-President: Mr. H. Laird Pearson. Treasurer: Dr. W. R. Floyd. Librarian: Mr. S Wilkinson. Secretary: Mr. J. H. Fardon. Committee: Mr. C. S. Brewer, Mr. W. Johnstone, Dr. R O. Morris, Mr. R T. Hughes, and Dr. W. Leask.

Reviews and Notices of Books.

The Medical Examination for Life Insurance and its Associated Clinical Methods, with Chapters on the Insurance of Substandard Lives and Accident Assurance By Charles Lyman Greene, M.D. St. Paul, Clinical Professor of Medicine and Physical Diagnosis in the University of Minnesota. With 99 Illustrations. London: Rebman, Limited. 1901. Pp 426 Price 17*s.*

In this work the author has endeavoured to include a description of the whole of the physical examination necessary in life assurance, together with the decisions that may be arrived at in that particular department of practice; hence, the book is a treatise on clinical diagnosis and examination for life assurance combined. At first the idea seems a good one, but in the volume now under consideration we cannot congratulate Dr. Greene on a successful production; neither part of the work is complete and both parts are greatly wanting in detail; the theoretical considerations are much better portrayed than the practical. It is assumed that many readers will be undergraduates, and, further, the author states in his preface that "within the past two years a considerable number of medical schools have introduced into their curriculum a special course of lectures dealing with the medical aspect of life assurance." That may be the case in America, but we have not heard of the plan being adopted in this country nor do we think it desirable.

The problems that come before the medical officer can only be solved by practical experience, and it is quite sufficient for the medical student to apply himself to the study of medicine and surgery without stepping aside to trifle with questions which demand considerable experience in the practice of his profession before they can be satisfactorily answered. If a practitioner is appointed as an examiner to a life assurance office it is presumed that he is acquainted with the ordinary means of physical diagnosis, and therefore we consider that Dr. Greene has not adopted a wise course in occupying the greater part of his book with matters which should be familiar to every senior student who has heard them thoroughly explained and seen them practically demonstrated by the physicians in the wards and out-patient departments. In short, the author has attempted too much. Nor are the chapters which deal solely with life assurance complete or explicit. The remarks on the Insurance of Substandard Lives suggest a great number of difficulties, but the way out of the pitfalls is only faintly indicated, and anyone fresh to the duties of medical examiner would only be more confused after reading Dr. Greene's remarks.

One of the most interesting chapters in the book is that on Attempts to Defraud Insurance Companies, in which an account is given of many cases of insurance fraud, either attempted or consummated. To the general arrangement of the book—that is to say, the manner in which reference is facilitated by means of heavy type and marginal headings—we give unstinted praise; the plan adopted is most useful and other authors might take the hint.

Materia Medica and Pharmacology. By David Culbreth, Ph.G., M.D., Professor of Botany and Materia Medica, Maryland College of Pharmacy. Second edition, enlarged and revised, with 464 illustrations. London: Rebman, Limited. 1901. 8vo, pp. 885. Price 20*s.* net.

This volume is intended more for the instruction of pharmacists and students of pharmacology than for physicians and students of the healing art. Its scope includes not only all the official medicines of the United States Pharmacopœia of to-day but also all which have at any time been official therein. There are notices, too, of allied species of organic drugs inserted with the intention of assisting students to recognise adulterations and substitutions. In addition to these are brief descriptions of the more useful of the unofficial synthetic chemical compounds. In the first edition, which was published in 1896, and which was well received everywhere, all doses were given in the United States "apothecaries" system, and degrees of temperature were expressed only in degrees of Fahrenheit. In this second edition a wise alteration has been made and all doses are given in the metric system in addition and degrees of temperature are recorded in the centigrade as well as the Fahrenheit scale. The work is valuable as a comprehensive text-book of materia medica and pharmacy, but the physiological actions of the drugs are only very briefly referred to and the medicinal uses in most cases are restricted to a mere catalogue of names of diseases. Those drugs which are poisonous have each in addition a few lines concerning antidotal measures. There is a useful chapter on the use of the microscope in materia medica. The constitution of organic carbon compounds and the methods of their chemical preparation are given very fully and their constitutions are illustrated by chemical formulæ and symbols. The illustrations are well executed. The book is well bound and well printed and is a valuable work of reference.

Histology and Pathology: A Manual for Students and Practitioners. By JOHN BENJAMIN NICHOLS, M.D., Demonstrator of Histology, Medical Department, Columbian University, Washington, D C.; and FRANK PALMER VALE, M D., Assistant in Pathology, Medical Department, University of Georgetown, Washington, D.C. Illustrated with 213 Engravings. London: Henry Kimpton. 1901. Pp. 458. Price 7*s.* 6*d.* net.

NOT only have American authors been very active in producing translations of standard German works, but during the last year or two there have been very numerous original American contributions to medical literature, some of which have been very valuable and important The book under review is one of a series—already numbering some 16 volumes—edited by Bern B. Gallaudet, M.D, demonstrator of anatomy and instructor in surgery, College of Physicians and Surgeons, Columbia University, New York. Though published as one volume, this work consists of two distinct books written by separate authors, each of whom accepts responsibility for his own part only. Normal Histology is treated in some 240 pages by Dr. Nichols, and a like space is occupied by Dr Vale with Pathology. Obviously this compression entails great conciseness and the avoidance of all discussion of doubtful points. The authors' claim for the book, indeed, is that it presents the subjects conveniently and clearly to students and practitioners of medicine, for whom the treatise is intended. On the whole, the claim is justified, though in parts, owing to the necessary brevity, the chapters read almost as a series of definitions; this is perhaps especially noticeable in the section on General Pathology, which is dismissed in some 60 pages, on many of which illustrations take up space. The arrangement of the histological portion is that generally met with.

Commencing with the cell and its development, the elementary tissues are next considered, and finally the various systems. The section on Blood and Lymph gives a good and accurate account of the present position of our knowledge, following for the most part Ehrlich's views with regard to leucocytes and recognising the degenerate character of the red cell. In the section on the Liver the glandular structure is spoken of as masked and obscure and we fear that it will remain so even after reading the chapter. The opening remarks on the respiratory system are good and considering the limits of the book a reasonable space is devoted to the central nervous system and special sense organs.

The second half of the work is divided into two portions, treating respectively of general and special pathology. A great deal of information is crowded into the space with the consequence which has already been mentioned; the various anæmias are described in some six pages. The disease and the lesions occurring are not always clearly distinguished. Thus various organisms—the bacillus of Friedländer, streptococcus, &c.—are said to produce lesions similar to those caused by the diplococcus pneumoniæ; this is perfectly true, but they do not produce the disease as defined—"an acute infectious self-limited disease with a definite clinical course."

A good deal of space is occupied by the illustrations which are taken from various sources and serve to elucidate the text, though they suffer—probably chiefly through the printing—by comparison with those found in some recently published works. The practitioner and the student, to whom the book is addressed, will certainly find in it a large amount of information, but we fancy that even these classes of readers will think the compression somewhat severe.

Qualitative Chemical Analysis, Organic and Inorganic. By F. MOLLWO PERKIN, Ph D. London: Longmans, Green, and Co 1901. Pp. 274. Price 3*s.* 6*d.*

IT is refreshing to find a new departure in the ordinary text-book of practical chemistry, and when that departure is calculated to bring facts and principles together at the same time in the students' mind we welcome the step. Dr. Perkin, like most teachers, has found amongst pupils a class who begin by reading chemistry and who prove invariably to be bunglers at the bench afterwards, and a class who carry out practical examination by following the sign-post, so to speak, of an analytical chart without any knowledge of principles. Dr. Perkin's endeavour has been to write a book in which theory and practice are more or less dovetailed. We agree with the order in which he has presented the analytical and theoretical considerations. The chapter on Reactions in Solution is excellent and brings the reader into contact with the modern theory of solution. The nomenclature suggested by Faraday for the old theory, which, curiously enough, expresses exactly so appositely the modern interpretation, is retained. Faraday called the radicles "ions," and the word "cations" is used to express the positively charged "ions" moving with the positive current, while the negatively charged "ions" moving against the positive stream are called "anions." The effect of the electric current in decomposing salts in aqueous solution is, according to modern theory, as follows. The salt is already dissociated by the water. The electric current merely neutralises the charges on the electrified radicles and thus sets them free to form new whole molecules. The radicles which are positively charged move towards a negatively charged body, while the negatively charged radicles migrate towards a positively charged conductor. The modern explanation of silver salts giving a precipitate with a soluble chloride is as follows. A solution of silver nitrate is a reagent for the detection of the anion Cl, and a solution containing the anion Cl—for example, hydrochloric acid—is a reagent for the detection of the cation Ag. But silver nitrate is clearly not a reagent for the element chlorine, for silver nitrate gives no precipitate with a solution of potassium chlorate because in solution potassium chlorate is dissociated into the cation K and the anion ClO_3. This method of teaching is a decided advance on the average text-book and is a most commendable feature of Dr. Perkin's plan. The book deals with both inorganic and organic analysis, the methods of detection and separation being identical for the most part with those described in previous practical handbooks.

LIBRARY TABLE.

The History of Ancient Gynæcology. By W. T. STEWART McKAY, M B., M.Ch London: Baillière, Tindall, and Cox. 1901. 8vo. Pp. 322. Price 7*s.* 6*d.* net.—The history of obstetrics has been fully told by Jacques de Siebold, but so far no one has attempted a similar task for gynæcology. We are so accustomed to regard the latter branch of medicine as of comparatively recent date that it is interesting to note how many are the references to diseases of women in many of the oldest medical writings. Beginning with the Papyrus Ebers, the oldest work extant on Egyptian medicine, Dr. McKay has gone through the works of the Hindu, the Greek, and the Roman writers down to the time of Paulus Ægineta. The results of his labours, carried out amidst a good many difficulties, are embodied in the present work. To enable his readers to obtain a comprehensive grasp of the subject he has given a *résumé* of the whole at the end of the book. The author shows that the ancients were familiar with the lithotomy position and employed the two methods of dilating the cervix in common use at the present time—viz., the rapid by dilators and the slow by tents. Their sponge-tents with string attached differed in no way from those of Simpson, and an instrument fulfilling all the functions of his sound was in use in the time of Hippocrates and by the Arabians. It is interesting to read, in view of the recent reintroduction of the application of superheated steam to the interior of the uterus, that in Ambroise Paré's works there is a figure with a full description of an apparatus for fumigating the womb. The book, which is of much interest, has the serious defect of possessing no index.

Diet and Food. By ALEXANDER HAIG, M.A., M.D. Oxon., F.R.C.P. Lond. Third edition. London: J. & A. Churchill. 1901. Pp. 118. Price 2*s.*—Dr. Haig's views on uric acid as a factor in the causation of disease are well known and in the present volume he teaches the doctrine of what he describes as a uric acid free diet and to that end gives recipes. These recipes mean the exclusion of all animal flesh, alcohol, tea, coffee, and similar alkaloids containing vegetable substances from the diet, rigidly excluding, as he says, "the poisons which cause friction and jar in the machinery." We fear the following daily regimen would not appeal to many people. Breakfast, one pint of milk with a plate of potatoes, bananas, pears, apples, plums, or other fresh fruit. Lunch, vegetable soup made with milk, plate of potatoes, two ounces of cheese eaten with potatoes and other vegetables in season, stewed fruit or tart, fresh fruit; one pint of milk drunk during the meal. Dinner, much as lunch, one pint of milk, half an ounce of cheese. This is all very interesting theoretically and no doubt chemistry and physiology teach that this diet would be sufficient for the maintenance of the human organism, but how sadly the palate would suffer, and the palate may surely be reckoned as a dietetic factor. What Dr. Haig classes as the diets which are uric acid free have been employed as food for generations without affecting the duration of life appreciably. Intemperance is, of course, responsible for autotoxic processes, but then the intemperance of temperance is the other extreme which would cut out of life many innocent joys.

Dental Metallurgy: a Manual for the Use of Dental Students and Practitioners. By CHARLES J. ESSIG, M.D., D.D.S., revised by AUGUSTUS KOENIG, B.S., M.D. Fourth edition, revised and enlarged. London: Henry Kimpton. 1901. Pp. 286. Price 7*s.* 6*d.*—Metallurgy is, of course, an essential subject in the dental student's curriculum, and the issue of a separate work devoted to the chemistry and physics of the metals is a need supplied. Though the properties of the metals are described in chemical text-books, yet they are not described with any particular bearing on dentistry. The book before us, therefore, will be welcomed by dental students, inasmuch as it presents just those facts about the metals and their compounds which concerns his particular vocation. The authors are teachers of the subject in the University of Pennsylvania and their experience of the needs of dental students is valuable. The chapter on Amalgams will be particularly useful, while the method of analysis of alloys will help the student to ascertain their composition. Following upon the description of mechanical methods the metals used in dentistry are individually dealt with. Dentistry, like other branches of professional work, is advancing rapidly and the student and dental practitioner must keep pace with these advances They will find that a perusal of this book will place them *au courant.* We note that the authors give references more than once to Percey's metallurgy. We presume they refer to Dr. Percy's well-known work.

The Mind of the Century. London: T. Fisher Unwin. 1901. Pp. 142. Price 2*s.*—This is a reprint of a series of articles which appeared in the columns of the *Daily Chronicle* towards the close of the last century. The sketches are necessarily brief and imperfect and the title is presumptuous. The series of essays gives but a scant notion of the mind of the century. It could not be otherwise when "Applied Science" is dismissed in nine pages, "Natural Science" in not quite nine pages, "Medicine" in nine pages, and so on. In the section on Applied Science the author touches merely the fringe of the great subjects involved, and he even omits any mention at all of the influence on industrial processes of chemical discoveries. The book would better be described as a conspectus of the progress of the past century.

JOURNALS AND MAGAZINES.

Birmingham Medical Review.—In the opening article of the May number Mr. George Heaton discusses the surgery of the stomach in much detail, describing operations for perforated ulcer, subdiaphragmatic abscess, gastro-jejunostomy, and the treatment of cancer of the stomach. Sir James Sawyer recommends unguentum ranunculi ficariæ in the treatment of conditions of a hæmorrhoidal character affecting the anal margins. The ranunculus ficaria, popularly known by the names of lesser celandine and pile-wort, is a well-known British wild perennial plant. The plants, gathered when they are blooming in the spring, are cut into small fragments and kept immersed in melted pure hog's lard at a temperature of about 100° F. in the proportion of one part by weight of the plant to three parts of lard for 24 hours. At the end of that time the portions of infused herb in the melted lard are subjected to sufficient pressure to produce the yielding of their juices to the fatty infusion, which infusion is thereupon strained and allowed to solidify. The ointment should be bright olive-green. Care should be taken not to raise the temperature of the mixture too high lest the colour be spoiled. Dr. E. A. Sadler records a case in which 20 grains of sulphonal produced drowsiness on the afternoon of the day after that on which it was taken, and on the following day—i.e., the second after taking the drug —pyrexia and semi-coma.

Quarterly Medical Journal.—In the May number Dr. James Kerr of Bradford records 18 cases of Tobacco Amblyopia and gives an analysis of 51 additional cases. Dr. George Lorimer of Buxton writes on Gout in connexion with Lead Impregnation. Mr. R. J. Pye-Smith describes a Reproduction of the Tibia after Removal of the Diaphysis for Acute Infectious Periostitis and Osteomyelitis. The formation of new bone is shown in a skiagram.

Grèce Médicale.—In the April number Dr. Triantaphyllides of Batoum records a case of Uncontrollable Vomiting Treated by Suggestion. The patient was 30 years of age and in the first month of her seventh pregnancy. Unsuccessful attempts to induce premature labour had been made. Dr. Triantaphyllides on taking charge of the case assured her that abortion had taken place and that the uterus was empty. He stopped all local treatment and gave bread pills every three hours. The vomiting soon ceased almost entirely. Labour followed at term. Dr. M. Mangakis of Athens mentions a case in which a girl, aged 18 years, twice presented symptoms of vicarious menstruation from the right ear and nostril.

Analytical Records

FROM

THE LANCET LABORATORY.

---

(1) GERM-FREE INVALID MILK; AND (2) GERM-FREE MOTHERISED MILK (CRYSTAL BROOK BRAND).

(J. Carson, Crystal Brook Farm, Theydon Bois, Essex.)

THESE specimens are the products of a milk farm kept under strict scientific and sanitary control. In addition the milk is obtained from prize Jersey cows which are periodically examined, each having successively withstood the tuberculin test. The farm, which we have visited, is situated at Theydon Bois in Essex amongst excellent pastureland and in a very healthy environment. Extraordinary pains are taken to produce a healthy milk and a milk of excellent quality. Our analysis of the invalid milk was as follows: total solids, 14 10 per cent.; fat, 5 per cent.; non-fats, 9 1 per cent.; and mineral matter, 0 72 per cent. The richness in cream is a remarkable feature of the sample. The "motherised" milk gave the following results of analysis: total solids, 12 02 per cent.; consisting of milk sugar, 6 32 per cent.; fat, 3·37 per cent.; casein, 1·79 per cent.; and mineral matter, 0 54 per cent. This composition accords with genuine mother's milk except in regard to the mineral matter which cannot be avoided owing to the higher percentage of salts in cow's milk. The process of "motherisation" and sterilisation are efficiently conducted and, what is of the greatest importance, these steps are begun directly after milking, the risk of contamination being thus reduced to a minimum. Prior to these processes the milk is filtered. As might be expected the milk is excellent in all respects, one satisfactory feature being that *even after several days* it keeps perfectly sweet after the stopper has been removed. This is excellent evidence in favour of the *freedom* of the milk from all organised impurities. We observed on the occasion of our visit to the farm that the dairies *are separate from* any part of the farm buildings or cow-houses. Such a farm is an excellent example of milk-farming, being conducted on correctly hygienic lines, producing not only milk of a high quality but milk entirely free *from* any disease-producing impurities. In view of these results it is not surprising to learn that the milk has proved highly *satisfactory* in the feeding of infants and invalids.

FRUIT CHUTNEY.

(T. H. Kesterton, 200, Strand, London, W.C.)

This chutney contains an assortment of fruits and is manufactured on a farm in Sussex It is not very much like Indian chutney and, in our *opinion*, not so good. Its flavour is very mild and lacks piquancy. It is evidently made *from* good materials and we could find *no objectionable* antiseptics present or any sign of metallic contamination. Doubtless this mild form of chutney may suit many tastes, but in our opinion it requires more zest as a sauce or condiment; however, *this is* an improvement which could easily be made.

TABLOIDS: (1) BETA-NAPHTHOL COMPOUND; (2) IRON CITRATE COMPOUND; AND (3) CODEINE AND NUX VOMICA.

(Burroughs, Wellcome and Co., Snow Hill-buildings, London, E.C.)

Beta-naphthol is well known as an anti-fermentative in dyspepsia and its association with wood charcoal and peppermint should be valuable in digestive disturbances. The compound beta naphthol tabloid contains one grain of beta-naphthol, four grains of wood charcoal, and half a minim of oil of peppermint. The tabloid iron citrate compound presents a well-known formula in a convenient form, whilst the purity of the ingredients is guaranteed. The tabloid is sugar-coated and each contains *three grains of citrate of iron* and ammonia, one grain of sulphate of quinine, and one-sixtieth of a grain of arsenious acid. Lastly, the tabloid codeine and nux vomica contains one grain of phosphate of codeine and a quarter of a grain of extract of nux vomica. The formula is designed for diabetic patients with a view to diminishing the excretion of sugar—a property of codeine.

(1) SOLUTION ADRENALIN CHLORIDE; AND (2) SUPRARENAL LIQUID WITH CHLORETONE.

(Parke, Davis, and Co., 111, Queen Victoria-street, London, E.C.)

Adrenalin is described as being the active *principle of* the suprarenal gland separated by a chemical process. Adrenalin occurs in tiny fusiform crystals which apparently dissolve easily in hydrochloric acid producing a definite chloride. The solution is a cardiac and vaso-motor stimulant, astringent, and hæmostatic. The solution contains one part of the chloride dissolved in a thousand parts of normal sodium chloride solution. It is said to be employed successfully for performing bloodless operations, and so powerful is the suprarenal principle that a single drop *of a solution of the strength* of 1 in 10,000 instilled into the eye blanches, it is stated, the conjunctiva, ocular and palpebral, in from 30 *seconds to one* minute. We have already described the local anæsthetic and antiseptic properties of chloretone in THE LANCET of Jan. 13th, 1900, p. 106. Those properties are taken advantage of in the preparation of a suprarenal liquid to which chloretone is added, the result being a preparation combining the local anæsthetic and antiseptic properties of chloretone with the extraordinary styptic qualities of the suprarenal extract.

EXTRAIT DE MALT (BIÈRE DE SANTÉ).

(Agency: W. P. Goodale, 64, Leadenhall-street, London, E.C.)

This is a somewhat syrupy fluid with strong malt flavour resembling that of lager beer. Apparently it is derived by concentrating lager beer by evaporation. It is only slightly alcoholic, as will be seen from the following results of analysis which we obtained: absolute alcohol, by weight 2·06 per cent., by volume 2·58 per cent., equal to proof *spirit 4·52* per cent.; and malt extractives, 20 37 per cent. The liquor is undoubtedly nutritious, but somewhat mawkish to the taste. According *to our experiments it* is without digestive action upon starch, the diastase probably having been destroyed by heat during concentration. *It contains* all the extractives of malt, including the sugars, dextrine, *nitrogenous* principles, and salts. On this account it is, *of* course, a food of some value, but we fail to see its advantage over a good *preparation of malt* extract, especially as it exhibits no diastasic properties.

(1) CODEINE NEUTRAL TARTRATE; AND (2) APOMORPHINE HYPOPHOSPHITE.

(J. F. Macfarlan and Co., Abbeyhill Chemical Works, Edinburgh, and London.)

The specimens sent to us offer *important* advantages for hypodermic purposes, first because they are more *soluble* in water than the ordinary salts, and secondly because *they* are not acid but neutral. The codeine neutral tartrate *is more* soluble than the acid phosphate of codeine, the *solubility* being about one part in two parts of water, and the dose is from a quarter of a grain to two grains. The hypophosphite of apomorphine is soluble in about six parts of water, whereas the hydrochloride is only sparingly soluble, one part *dissolving in 50* parts of water. The hypodermic dose of *apomorphine hypophosphite* is from one-sixteenth to one-sixth of a grain.

THE LANCET.

LONDON: SATURDAY, MAY 25, 1901.

The Approaching Meeting of the General Medical Council.

WE are probably safe in assuming that the next meeting of the General Medical Council is anticipated with exceptional interest. The Executive Committee meets on June 3rd, the day preceding that on which the General Medical Council meets. It has as one of its chief duties the arrangement of the business of the Council for the first day of the session. It will do a great service if it can contrive to secure that the early days of the meeting shall be used for the discussion of the really important questions which demand the attention of the Council, and can prevent the waste of time which has contributed so largely in producing the present unsatisfactory position of the Council's finances. There are topics which present themselves for consideration session after session and year after year. These hardy annuals should be disposed of on some principle and with some firmness or they will bring the Council into discredit. The following subjects will call for attention from the Council. The financial position of the General Medical Council and of the branch councils will be considered in the light of the special report from the expert selected by the treasurers in accordance with the resolution of the Council at its meeting last December; the modest amendment of the Medical Acts practically agreed on, as between the medical authorities and the General Medical Council on the one hand and the Privy Council on the other; the recognition of foreign or colonial diplomas, a subject which has been brought before the Council by a communication to the Colonial Office asking for the recognition of the medical degree of the University of Malta; the examinations of the Apothecaries' Hall of Dublin, the special inspection of which has been a costly charge on the Council for the last few years; the list of exemptions granted by the medical authorities in any part of their examinations held in 1897, 1898, and 1899; and the disciplinary cases referred from last session, with any cases that may have arisen in the interval, to be reported on by the Penal Cases Committee. This does not pretend to be an exhaustive list of the subjects which must find a place in the programme of the Council—indeed, we have omitted one of the most important—but it is sufficiently long to show the need for a methodical routine of procedure on the part of the executive and business committees which are largely responsible for the order of business.

It is, in our opinion, impossible not to see that the financial position of the Council calls for serious consideration. There may be nothing alarming in the financial position of the Council, but it is obvious to all, on the showing of the Finance Committee, that the expenditure of the Council is increasing, while its reliable income remains practically stationary. The General Medical Council has very little income. Its main wealth consists in its power to demand from the branches the sum needed to pay its expenses. The growth of this demand is the serious element in the financial statement. Making allowance for the fact that the General Medical Council holds a good property in its offices and house in Hanover-square, though for the present heavily mortgaged, it is impossible to view without concern the growing expenditure of the Council or to doubt that some means ought to be devised for lessening it if the English and Scottish branches are not to be impoverished as the Irish branch has already been. It is not enough to say that this state of matters arises from the addition of seven members to the Council since 1858 and the introduction of topics for discussion which seldom arose in the early days of the Council. The Council cannot afford to be out of sympathy with the profession which supplies its funds. It may exist primarily for the protection of the public, but it has charge of the professional status of the medical man and must turn a willing ear to all matters concerning the maintenance of that status. It cannot decline to discuss questions which affect the *morale* of the profession without abandoning one of its statutory functions. But it must find some way of doing its work and keeping its expenditure within its income. Theoretically this would best be secured by abolishing the individual representation of the licensing bodies and so moderating the size of the Council, but this implies legislation that would be stoutly resisted by each and all of the medical institutions, and we have to look elsewhere for a feasible remedy. Meantime all members of the Council can add to its credit and their own by discouraging loose and unpractical work. The fees of the Council constitute its chief expenditure—and we hasten to say that it would be a quixotically foolish economy for the Council to do its work without being paid for its labours. But it would stamp them as worthy of the trust reposed on them if they would confine their words to the most modest dimensions, debate questions of practical importance only, and arrive as quickly as possible at definite courses of procedure. The Council cannot afford to disregard questions of professional conduct which have arisen in new forms of late years. But it should carefully and quickly ascertain what are the limits of its own duty and power and then firmly resolve to keep within them. Otherwise expenditure will continue to grow in a greater ratio than income.

There remains for notice one subject that is sure to engage the attention of the Council very seriously, that is the position taken up towards it by the Royal College of Physicians of London and the Royal College of Surgeons of England in respect of the teaching of the preliminary sciences. We must express a hope in regard to this dispute that both parties will come to the Council with a disposition to find some way of ending it. The General Medical Council has not always been happy in its relations with the licensing bodies, and it really seems to have no jurisdiction over the Colleges in this matter. On the other hand, the teaching of the preliminary sciences is fundamental and affects the whole course and efficiency of the medical curriculum, and the Privy Council may think the General Medical Council right in trying by its regulations to influence the curriculum required by the Colleges. One thing is clear, that the dispute should be settled amicably between the Council and the Colleges. It is bad for the medical profession that difference of opinion between the Council and the Colleges should be pushed so far as to necessitate reference to the Privy Council, while recourse to law would be simply deplorable in the loss of prestige to one party or the other that would be entailed.

◆

The Re-organisation of the Army Medical Service.

SIR JOHN BATTY TUKE put a question to the Secretary for War in the House of Commons on May 17th as to whether it was proposed to adopt the suggestion, contained in the report of the Royal Commission on the South African Hospitals, that a departmental or other committee of experts should be appointed to decide upon the steps needed to effect certain reforms in the Royal Army Medical Corps, and, if so, whether he was prepared to state the composition of such committee? Lord STANLEY, Financial Secretary to the War Office, said, in reply, that the Secretary of State was preparing various proposals to submit to a committee of experts, but that the composition of the committee could not at present be stated. That the subject is one of national importance we need not point out; nevertheless, we do not regret any delay that may be necessary in order to have a full, free, and independent inquiry started. Much will, of course, depend upon the selection of a president and the composition of the committee. It goes without saying that the Army Medical Service will be represented. For in any attempt to adjust the medical requirements and provisions to the needs of the Empire and modern war it is only those who are practically, as well as theoretically, acquainted with the existing systems of military organisation and administration who can be in a position to furnish the committee with reliable information, and it will require men of military training to appreciate their evidence. But so that this aspect of the question is duly represented we see no reason why the military, or military medical, element should be the predominating one. There is no objection to the civil element being largely represented. What is required is that the committee should comprise men of independence of character and business capacity.

With a committee so constituted we may be sure that no schemes or proposals which did not commend themselves to educated men of ability and common sense would be entertained. The inquiry should be of a sufficiently deliberate character to enable the committee to arrive at some definite conclusions and recommendations on which a scheme of army medical reform may be formulated by the Government, so sound and well-balanced that it has a good chance of being accepted as reasonable and just by the public and the medical profession, civil and military alike. The problem is confessedly a difficult one. If the committee can succeed in solving it they will render a great public service. They will certainly likewise earn the gratitude of the medical profession, which is tired of seeing the Army Medical Service so frequently aspersed and identified with failure, notwithstanding that the individual medical officers composing it are at the same time extolled for zeal, devotion, and bravery displayed in their war duties. In the meantime it is officially announced that various proposals are being prepared by the War Office for submission to the forthcoming committee, who will be furnished from the beginning with plenty of food for reflection. An enormous amount of evidence that reform is needed, and an equally large amount of suggestions—of varying value, by the way, and not always emanating from responsible persons—with regard to the directions that reform should take have appeared in the public press, while the British Medical Association have recently contributed most interesting material for consideration in the shape of a provisional report on the Army Medical Service. This report, which contains detailed recommendations for the re-organisation of the service, has been drawn up by a sub-committee of the Parliamentary Bills Committee of the Association, and, having been adopted by the Council of the Association, was published as a supplement to the *British Medical Journal* of May 4th last. The report has a wide scope and is of an elaborate and exhaustive description. It has evidently been industriously and carefully drawn up and contains a good deal of useful and pertinent information. If some of this is not exactly new to the medical profession, it will all bear repeating, and the grievances of the Army Medical Service are of long standing. We do not know whether the sub-committee's inquiries were addressed to all the universities, colleges, and medical schools in the United Kingdom, but replies have been received from 33 of them, of which a list is given and the results are thrown into tabular form. The sub-committee proceed to group, analyse, and summarise these replies under certain general and specific heads and are thus able to formulate a series of proposals for the re-organisation of the service, which have received the imprimatur of a number of representative bodies.

Adverting to the series of articles which have recently appeared in THE LANCET in connexion with the report of the Royal Commission on South African Hospitals we hope that, among other things, one point will not be lost sight of either by our readers or by the promised committee of experts. We are entirely in favour of remedying what we have always regarded and characterised as a grave defect in the Army Medical Service. Nothing is held out as a reward for professional or scientific attainments, and so little is done in the way of the selection of medical officers for promotion to the higher posts of the service for their merits, instead of as a mere matter of seniority, that it might be imagined that no regulations had ever existed especially providing for selection where it is deemed proper. That a process of selection should be properly put into action forms one of the principal points in the scheme of re-organisation set forth in these columns. After dwelling upon the importance of giving medical officers every practicable facility for professional study and saying that the Director-General should have such a record of the capacities, qualifications, and characters of his officers as to enable him at any moment to put his finger on the right men to fill the right places, we pointed out that promotion by selection had practically been neglected or fallen into abeyance, and added that "there should, in our opinion, be far more rewards held out for professional merit." To make the Army Medical Service a pure seniority service is, in our opinion, tantamount to passing a sentence of death upon it. Up to a certain rank, and in order to deal fairly and justly with officers of average ability and attainments with an average amount and quality of service, seniority should be the rule; but for all above that rank selection should be the rule. Medical officers who have rendered exceptional service (professional, scientific, or otherwise) or who are in possession of high qualifications should, if they are to be rewarded by promotion, have their names placed upon a separate list, or the step in rank should be of the nature of brevet rank, otherwise their reward will be obtained at the cost of their brother officers over whose heads they will pass and not at the expense of the State, as should be the case. We need scarcely say that other things are required besides high professional or scientific attainments to qualify a man to make a good administrative officer. We are fully alive also to the fact that promotion by merit may be worked to mean, as it is so often alleged to mean, interest or something other than merit, and we would consequently have the grounds of selection set forth and recorded and the record kept at the headquarters of the Army Medical Service, open to the inspection of all whom it might concern. Jobbery, and even the suspicion of jobbery, must be avoided.

The Festival Dinner of the Polyclinic.

THE festival dinner of the Medical Graduates' College and Polyclinic was held at the Hotel Cecil on May 22nd. The Leader of the House of Commons presided and was supported by men eminent in many departments of human endeavour, politicians, social celebrities, Church dignitaries, peers, and distinguished representatives of the colonies. The occasion was noteworthy in several ways, for the institution whose promoters have received an unmistakeable token of encouragement is novel in this country, while the public have never before been so frankly taken behind the scenes of medical education and been shown its difficulties, its limitations, and its great aspirations. All of us looking back on our student days will remember the time when everything was strange and new, when the intricacies of anatomy, chemistry, and physiology taxed our memories, and the unwelcome prospect of examinations in due course engrossed our thoughts. With the students of the Medical Graduates' College this is not so. They have mastered the essentials of their profession and their only object now is to increase the stock of experience which they have gained, to systematise their knowledge, and to train themselves in the art of turning it to practical account

The need of such an institution is a very real one, for medical science has become so extensive and has developed itself in so many different directions that the well-equipped practitioner requires to know at least something of almost every department of physics and biology, and must do what he can to seize the leading points of an enormous technical literature. Those who do not hold any hospital appointment and are absorbed in the multitudinous cares of professional life may well be excused if they fail to realise these ideals, but the inevitable penalty is that if there is no progress there must be retrogression, so that as the years advance a period of "rustiness" must arrive and the veteran find himself at a disadvantage as compared with those who are destined to be his successors. Post-graduate study, participation in the work of medical societies, and judicious reading are the most available antidotes. The young man, who has satisfied the examiners and received his diploma, soon discovers that the conditions which he encounters in private practice are not just the same as those with which he was familiar in the hospital. For one thing, the hospital patients are themselves to a certain extent a selected class—either actually suffering from some of the worst ills to which flesh is heir, or at least presenting symptoms of impending trouble which, when analysed by a skilful teacher, may form the groundwork of an interesting study. In private practice, however, the clinical material is less concentrated, so to speak; minor ailments prevail, and surgical cases are less common than might be expected; but the practitioner must never forget that a good store of sound clinical knowledge is of the first importance to him. The art of reading symptoms aright and the ability to forecast the probable course of an illness or the consequences of an injury must be diligently cultivated. And for the encouragement of the faculties of observation and the acquisition of new ideas invaluable opportunities are afforded at the Medical Graduates' College. Post-graduate study, whether called by that name or not, must of necessity always exist in some form or other, for medicine and surgery are inherently progressive, fresh discoveries are every now and then superseding currently accepted views, and new methods of diagnosis are constantly being introduced. Without going so far back as the pre-anæsthetic days, who of us that has passed middle age does not remember the time when the clinical thermometer was an unfamiliar object, when the microscope was scarcely applied at all in clinical work but only in the anatomy class-room, when the recognition of anæmia by examining the blood was only beginning to be talked about? At that time the rapid and secure identification of tuberculosis, diphtheria, and malaria by means of their microbes was unthought of, and no such prompt diagnosis of plague as is now a matter of daily routine was possible. These aids to the practitioner in his struggle with disease depend on the employment of instruments of precision and the utilitarian application of laboratory methods, the latest acquisition in this field being the Roentgen rays, by the help of which many obscure surgical problems are promptly solved. Surgery itself has been revolutionised in every department by Lord LISTER, whose discoveries were given to the world about 35 years ago, and during the same period the modern methods of dealing with epidemic disease other than small-pox have been evolved by the labours of many sanitarians. On the notorious success of the sanitarians we need not dwell.

But developments of medicine as they occur require to be brought to the notice of the medical profession as a whole if the public is to obtain full benefit from them. The professors and teachers of the great medical schools and their students enjoy opportunities which the Polyclinic aims at affording to all medical men For which reason we think the Polyclinic deserves to obtain the considerable measure of public support which Mr BALFOUR in an eloquent speech, reported elsewhere in our columns, demands for it Mr BALFOUR'S suggestion that we as a nation have of late fallen behind Germany, France and Italy in the ardour of our pursuit of knowledge should give all thoughtful people a subject for reflection Do we lack the imagination required to show what apparently remote and abstract studies do for the service of mankind? asks the most philosophic of our statesmen And he evidently expects a positive answer The spirit of research, of ardent uncompromising intent to get at the truth of things, stimulates the work of British medicine as vigorously now as in the past and as conspicuously here as it does in any other country But we are not certain that our lay fellow-citizens can clear themselves from the reproach of being apathetic to the developments of medical science The Englishman, proud of being practical, likes to pay for results, and in medicine tangible results cannot always follow honest work We hope that Mr BALFOUR'S words may help the public to take a large view of medical science, and may influence them to see, and persuade them to support, honestly directed medical research It will be seen on reference to his speech that Mr BALFOUR grounded his appeal for funds upon three separate heads, and that we have only referred to his arguments for the endowment of research This is because we feel that the scope of the Polyclinic's work must be more defined, and its position towards the public and the medical practitioner as a charitable institution made more exactly clear, before it can expect the unanimous support of the medical profession

Annotations.

"Ne quid nimis."

THE ANNUAL REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD

THE annual report of the medical officer of the Local Government Board for the year 1899-1900, in supplement to the Board's annual report, has made its appearance and relates almost wholly to the proceedings of the medical department in the latter months of the late Sir Richard Thorne's tenure of office Among the appendices will be found, as in previous years, some extremely interesting articles Many of these have been reviewed in our columns as reports of assistant medical officers of the Board to the principal medical officer, and taken as a whole they constitute a summary of the public health administration of the country which is of the utmost value An article of great interest is that supplied by Dr R Bruce Low upon the progress and diffusion of the plague in 1899 1900 This is in addition to a short account given in Sir Richard Thorne's last annual report showing the progress and diffusion of plague throughout the world from 1879 to 1898 as far as records of the manifestation of the disease could be obtained This valuable contribution is followed by a memorandum by Dr Bruce Low upon the precautionary measures taken in 1899 to prevent the importation of bubonic plague into England and Wales The marked success which has attended the sanitary measures of Great Britain and Ireland in excluding plague from this country, although we remain in touch through our widespread commerce and far reaching possessions with a dozen infected centres, redounds to the credit of the Local Government Board We think that every medical man would do well to read these papers and see how the good results have been obtained We shall as usual deal with the report in a short series of articles

THE INDIGESTION OF LONELINESS

AT a time like the present, when the marrying age of the average man of the middle classes is being more and more postponed, the physical ills of bachelordom come increasingly under the notice of the medical man It is not good for man or woman to live alone Indeed, it has been well said that for solitude to be successful a man must be either angel or devil This refers, perhaps, mainly to the moral aspects of isolation, and with these we have now no concern There are certain physical ills, however, which are not the least among the disadvantages of loneliness Of these there is many a clerk in London, many a young barrister, rising, perhaps, but not yet far enough risen, many a business man or journalist who will say that one of the most trying features of his unmarried life is to have to eat alone And a premature dyspepsia is the only thing that ever takes him to his medical man There are some few happily disposed individuals who can dine alone and not eat too fast, nor too much nor too little With the majority it is different The average man puts his novel or his paper before him and thinks that he will lengthen out the meal with due deliberation by reading a little with, and more between, the courses He will just employ his mind enough to help, and too little to interfere with, digestion In fact, he will provide that gentle mental accompaniment which with happier people conversation gives to a meal This is your solitary's excellent idea In reality he becomes engrossed in what he is reading till suddenly finding his chop cold he demolishes it in a few mouthfuls; or else he finds that he is hungry and paying no attention to the book, which he flings aside, he rushes through his food as fast as possible, to plunge into his armchair and literature afterwards In either case the lonely man must digest at a disadvantage For due and easy nutrition food should be slowly taken and the mind should not be intensely exercised during the process Everyone knows that violent bodily exercise is bad just after a meal, and mental exertion is equally so Wise people do not even argue during or just after dinner and observation of after dinner speeches will convince anyone that most speakers neither endure themselves nor excite in their hearers any severe intellectual effort In fact, the experience of countless generations, from the Red Indian of the woods to the white shirted diners of a modern party, has perpetuated the lesson that a man should not eat alone, nor think much at this time, but should talk and be talked to while he feeds Most people do not think much when they talk, and talking is a natural accompaniment of eating and drinking How does it fare with the many solitary women of to day? No better, we know, than with the men, but differently Alone or not a man may generally be trusted at any rate to take food enough (We suppose, of course, that he can get it) With a woman it is different She is more emotional, more imaginative, and less inclined to realise the gross necessities of existence Therefore the woman doomed to dine alone as often as not does not dine at all She gets dyspepsia because her digestion has not sufficient practice; a man gets it because his functions practise it too often in the wrong way. Worst of all, perhaps, is the case of the solitary cook. In the myriads of small flats in London there are thousands of women "doing" for their solitary masters or mistresses. These women, whose main occupation is to prepare food for others, find it impossible to enjoy, or even to take, food themselves. As confectioners are said to give their apprentices a free run of the stock of the shop for the first few days, knowing that it will effectually cure appetite afterwards, so the women who are always occupied with buying and preparing food grow unable to use it for themselves These people suffer from dyspepsia, which is cured if somebody else manages their kitchen for a week, allowing them to take meals without preparing them. It needs no moralist to declare the evils of solitariness. Man and woman is a gregarious animal. Physically and intellectually we improve with companionship. Certainly it is not good to eat and to drink alone. It is a sad fact of our big cities that they hold hundreds of men and women who in the day are too busy and at night too lonely to feed with profit, much less with any pleasure.

THE MEDICAL ASPECTS OF CANCER OF THE BREAST.

In the first two numbers of *American Medicine* Professor Osler has published a useful article on the above subject. In cancer of the breast metastasis in the bones and other parts may occur at any period, early or late. Mr. T. W. Nunn has described the case of a woman, aged 27 years, who had in April cancer of the left breast which she had noticed for several months. There was left ptosis in June; subsequently paraplegia occurred. On the other hand, Professor Osler observed metastasis as late as 18 years after the discovery of the breast tumour. He divides the secondary manifestations into cerebro spinal, thoracic, and abdominal. The skull and brain are not often affected. The spinal group is, perhaps, the most important Billroth remarks that cancer of the spine is seen particularly in the atrophic form of scirrhus. From a diagnostic standpoint this fact is of great importance, for the patient may overlook the primary growth and come under treatment for the spinal symptoms which may be misunderstood by the unwary. The pains may be regarded as rheumatic, neuralgic, or hysterical. Charcot insists that in any case of painful paraplegia, particularly if the patient is a woman, atrophic indolent scirrhus of the breast should be looked for. Referring to one case he says: "Struck by special characters presented by the pain and calling to mind some of the facts which I had observed at the Salpêtrière, I asked if there was not a lesion of the breast. The reply was negative, but, to the great astonishment of the patient, I found one of the breasts retracted with an atrophic scirrhus." Professor Osler describes a similar case: a woman, aged 52 years, had been complaining for five or six months of severe pains in the neck which were thought to be neuralgic and rheumatic. She looked well and was fairly nourished, though she had lost considerable weight. As she rested in bed she had no pain, but when she attempted to move the head she felt pain in the back of the neck. She walked well, but carried the head stiffly. The knee-jerks were increased. Scirrhus of the left breast was found which at once threw light on the case. Cruveilhier described spinal cancer and gave the condition the name of "paraplegia dolorosa." Charcot has given a very clear account of it in one of his lectures. The main features are intense pains in the sides and down the legs, or, if the secondary growths are higher, in the arms. There are areas of anæsthesia; sometimes there is the so-called anæsthesia dolorosa, and herpes zoster may break out. One feature of the pain is characteristic: the patient may remain in a comfortable position for an hour or more, then the slightest movement of the spine produces torment. There may be extreme symptoms of pressure on the nerve roots without paraplegia. When pressure on the cord begins there are often painful spasms in which the legs are drawn up. Ultimately there may be complete paraplegia. A remarkable fact is that the spinal symptoms may disappear and the patient recover from a desperate condition of "paraplegia dolorosa" sufficient to be able to walk about. Professor Osler describes the case of a woman, aged 30 years, who began to have pains in the back and chest in August, 1899, 18 months after removal of the left breast for cancer. Shingles over the left side and shoulder appeared. She had a winter of great suffering. In March, 1900, she complained of difficulty in walking. Complete paraplegia, sensory and motor, followed. In July she began to improve. The paraplegia gradually disappeared and though stiff she could walk with a cane. Professor Osler gives no explanation of this curious recovery. Probably it was due to absorption of the secondary growth—an event which occasionally occurs in malignant disease.

DYING DECLARATIONS.

A medical practitioner was arraigned at the recent sessions of the Central Criminal Court upon a charge of murder of a woman, and was also indicted for using an instrument upon her with intent to procure her miscarriage. The case did not proceed far because the principal evidence tendered by the prosecution consisted in a dying declaration made by the deceased woman. The circumstances in which the declaration was made were proved, and Mr. Justice Bruce ruled it to be inadmissible as evidence. The declaration had not been made in the settled hopeless expectation of immediate or almost immediate death, which condition the law imposes in its anxiety that the prisoner in such serious cases may not be judged upon anything that may possibly have been said in malice and untruly. The dying declaration, which is used, when properly made, in cases where the death of the deceased forms the subject of the inquiry, must not be confused with the "deposition" of a sick or deceased person which may be read at the trial of any accused person, if it was taken in his presence before a magistrate and with opportunity afforded to him of cross-examining or protesting. In the case in question the declaration was further inadmissible because it was made in answer to questions and not as a voluntary unprompted statement and because a record had been made of the replies but not of the questions asked. We note these points because declarations of this kind are frequently made at the suggestion of the medical practitioner when he sees that there is no hope of his patient's recovery and when he suspects that there has been foul play. A declaration thus made is not more admissible because it was taken before a magistrate, although no doubt the presence of a justice of the peace may add authenticity and weight; the deposition, on the other hand, is taken with proper formalities by a magistrate. We observe that in the particular case there would have been a direct conflict of medical evidence as to the cause of death, had the trial proceeded, and that the accused had consistently denied that he did anything to procure a miscarriage. It may have struck some as strange that with this conflict of evidence the grand jury should have returned a true bill. It must be remembered, however, with regard to this that just as it is the duty of the magistrate to commit for trial so it is the duty of the grand jury to bring in a bill where they are satisfied that there is a *primâ facie* case against the prisoner. The admissibility of the dying declaration was for the judge and he only decided the point after the bill was found, while it was not at all necessary that all the evidence for the prosecution, some of it inconsistent perhaps with other portions, should have been before the grand jury at all That body, as soon as it is satisfied that there is a *primâ facie* case on evidence that has been laid before it, may find a bill without waiting to listen to any more

THE BRAINS OF TWO DISTINGUISHED PHYSICIANS.

THE study of the brains of distinguished men is always fraught with interest because of the possibility of correlating exceptional endowments with special conditions of cerebral organisation and development Up to the present day but few brains of really eminent men have been studied and described, the few including those of Chauncey Wright, Grote, Gauss, Gambetta, Helmholtz, and a few others In the *Philadelphia Medical Journal* of April 6th Dr E A Spitzka gives a description of the brains of two distinguished physicians—father and son. The elder, Dr Edouard Seguin, was born in France in 1812 of a family which had distinguished itself for generations in medicine and the fine arts Seguin became a physician and associated himself with Esquirol in the great work of the humane treatment of lunatics which the latter was then carrying on, devoting himself specially to the care and treatment of idiocy and imbecility For over 40 years he was physician at the Hospice de Bicêtre and published works which immediately assumed a classical importance in regard to the subject of the education and treatment of the feeble minded and the imbecile He died in October, 1880 His son, Professor Edward Constant Seguin, was born in 1843, and after pursuing his medical studies in New York was appointed lecturer on diseases of the nervous system and insanity at the College of Physicians and Surgeons, New York, in 1871 He made valuable and original contributions to the pathology and therapeutics of nervous disorders and was one of the pioneers of American neurology He died in February, 1898 The brain of the elder Seguin, says Dr Spitzka, was normal in appearance and texture and weighed 1257 grammes, the weight being slightly below the average, a condition which Dr Spitzka thinks may have been due to "some wasting of the brain tissue from disease or age, or both" Its characteristic features are summed up as follows (1) marked development with great breadth and fulness of the frontal lobes, (2) a great width and ample development of the parietal and temporal lobes; (3) relative smallness of the cuneus on both sides, especially the left, (4) general tortuosity of the fissures and gyri, (5) an exceptionally full development of the insula, and especially of its anterior part, so that on one side (the left) this part of the insula was not covered by the operculum but remained exposed, and (6) the frontal gyri were the most complex of the entire brain, being particularly rich in their windings The speech centre of Broca was also very well developed "There is that in the 'physiognomy' of the brain, as in the son's," says Dr Spitzka "which it would be impossible to describe otherwise than to say that it portrays the culture, refinement, and intellectual capacity of its erstwhile owner when living" The brain of the younger Seguin weighed 1502 grammes, the right hemisphere being 642 grammes and the left 653 As in the father's brain there was a slight but unquestionable exposure of the anterior part of the left insula There was ample development of the frontal lobes and relatively small development of the occipital lobes Hitherto an uncovered insula has only been found in the brains of imbeciles and mentally defective persons and in negroes, this condition being associated with insufficient development of the opercula. In the case of the Seguins, however, the explanation is different The opercular regions are by no means defective in development, but are well developed The insula, however, has been the seat of exceptionally marked development so that it has "virtually thrust apart the opercula and made itself visible" This view of the relative hypertrophy of the insula is supported by an elaborate series of measurements made of the fissures in and around it Dr Spitzka wishes to correlate this with the exceptional linguistic capacity of the Seguins, both father and son being fluent speakers and writers of three languages—English, French, and German

SIMULATION OF BERI-BERI

A CORRESPONDENT informs us that in the Malay Archipelago there exists a practice of malingering by shamming beri beri which it is almost impossible to diagnose from the real case It occurs mostly in the prisons amongst the long sentence men who are liberated upon showing symptoms of beri beri and are sent to their native home to die there No sooner have they arrived there, however, than they are cured Œdema is produced in a very simple manner A fine hole is drilled into the leg and a small hair is inserted. After the skin has grown over the aperture thus made swelling sets in which pits exactly like the œdema in the real cases, Great lassitude and feebleness follow The Government is only too glad to save the patient's keep and he is sent off home where he soon recovers after he has removed the hair from his leg Medical officers belonging to the services might find it useful to keep this in mind when visiting these countries for the first time

ASTEREOGNOSIS

DR CHARLES W. BURR, neurologist to the Philadelphia Hospital, reports in the March number of the *American Journal of the Medical Sciences* a number of cases which throw light on the interesting clinical condition known as stereognosis to which reference had previously been made in these columns [1] Stereognosis is the capacity of recognising the nature of objects by handling them with the fingers; it is thus a complex perception dependent on the proper coöperation of cutaneous sensations (tactile and pressure sensations) and of the kinæsthetic sense (sense of spatial disposition of the fingers), and to a less extent of temperature and pain sense According to Dr Joseph Sailer [2] the cerebral centre concerned in the function of stereognosis is situated in the parietal lobe of the brain The cases reported by Dr Burr are as follows Case 1—A young man who when a boy sustained a fracture of the right parietal bone suffered from temporary hemiplegia and hemianæsthesia of the left side On recovery he found that he could not recognise objects with his left hand. "On examination years after the injury it was found that though there was no palsy and no anæsthesia, save the inability to localise sensations, he could not recognise any object in the left hand . The explanation was that being unable to localise sensations he could not distinguish form" Case 2—A man, aged 37 years, had suffered for some weeks from "thickness" of speech and a little weakness and stiffness of the left side of the face He then had an attack of illness of an obscure kind attended with unconsciousness, after which he exhibited a slight left-sided hemiplegia Movements of the left arm were weakened There was a slight impairment of tactile sensibility in the left thumb and index finger, and he localised light touch incorrectly but pressure correctly In the left hand there was complete astereognosis.

---

[1] THE LANCET, April 15th, 1899, p 1044

[2] THE LANCET, 1899, loc. cit.

At his death, a few months later, a tumour was found in the right centrum semi-ovale above the lateral ventricle. Cases 3 and 4 occurred in a man and a woman respectively, the diagnosis in the latter being difficult owing to complications of the nature of hysteria. The man, aged 52 years, had astereognosis, and after death a tumour was discovered in the parietal lobe on the left side of the brain. It pressed against, but did not invade, the ascending parietal convolution, partially destroyed the angular gyrus, and involved almost the entire posterior parietal lobule. The subcortical white matter was destroyed by it. Its growth was marked by successive stages of clinical symptoms of a most interesting character, commencing with slight hemiplegia, slight tactile anæsthesia, and astereognosis. This showed that it involved the parietal lobe. Later, as the tumour increased, there followed symptoms of word-blindness (involvement of the angular gyrus) and of amnesic aphasia in varying degrees. The final stages were mental dulness and death. The lesion in this case was adequate to explain both the astereognosis and the word-blindness which were present and to prove the close proximity to each other of the cerebral centres which subserved these functions.

"LEGISLATION ON PENNY ICES: A GOOD EXAMPLE."

WITH reference to an annotation under this title which appeared in THE LANCET of May 18th, p. 1417, a correspondent tells us that the clause in the Brighton Corporation Bill relating to ice-cream did not pass through the Parliamentary Committee in the form in which it was originally drafted. The Bill contained two clauses, the first inflicting a maximum penalty of 40*s.* on any person causing ice-cream or similar commodities to be manufactured, sold, or stored in any improper place, or exposing such commodity to infection or contamination, or failing to notify any outbreak of infectious disease amongst the persons employed in the business. The second clause followed on the lines of Section 6 of the Order of 1885 relating to Dairies and Milkshops, requiring, as in the case of milk, the registration of each person carrying on the trade of dealer in ice-cream and inflicting a penalty on any person selling such commodity within the borough while unregistered. Objection was taken to the latter clause in the preliminary stages of the Bill and the corporation were advised to withdraw it, and they did so. This, we think, is unfortunate, as the first clause without the second will only be partially operative, the main difficulty in connexion with the business of street-vending of ice-cream being to find the home address and to keep under frequent observation the condition of the house in which the ice-cream is manufactured.

A FRENCH SURGEON-MAJOR'S EXPERIENCE OF BRITISH HOSPITAL SHIPS.

SOME notes from an official report by Surgeon-Major Ropert, of the French frigate *Melpomène*, have recently been published with reference to British sick-transport from the Cape of Good Hope. His ship having put in at Las Palmas Surgeon-Major Ropert had an opportunity of inspecting the *Orotava*, which was conveying invalids to England. He expected to find "complex installations," but on the contrary everything was "very good but very simple." All the first-class cabins having been dismantled, large, well-ventilated, and sufficiently lighted wards were obtained, affording ample cubic space for the soldier-patients who occupied frame beds made of canvas which were suspended from the ceiling. These cots were all on the same plane, and the space between them was more than wide enough for the attendants. The *Orotava* was used for sick-transport only, but the *Lismore Castle*, which was also inspected, had been converted into a hospital ship. Having been sent out to Durban as a transport, her captain received orders at that port to fit his vessel out for the accommodation of sick and wounded men, and six days afterwards he was able to embark the patients. During upwards of four months the vessel had served admirably as a floating hospital, and she was now *en route* for England with every berth occupied. The installation, "as simple as practical," is briefly described by Dr. Cassien, who was one of Surgeon-Major Ropert's subalterns. It was apparently quite perfect, comprising luxurious quarters for 162 incapacitated soldiers, sick, wounded, and convalescent, besides a number of beds for non-commissioned officers in the side cabins, and for officers in the smoking-saloon and elsewhere on the upper deck. In close proximity to every ward there were baths, water-closets, and ice-chambers. The operating-room on deck was constructed of planking lined with tarred canvas and covered by a double roof. It contained a receptacle for instruments, another for dressing material, a large washing-stand with an electrically heated boiler, and several moveable incandescent lamps. "This simple little room, small and so easily disinfected, seemed to us," says Dr. Cassien, "to fulfil all the conditions requisite for the successful issue of the operations which, to the number of eight per week, had to be performed during the voyage." The solitary blot mentioned by Dr. Cassien is in connexion with the x ray installation. The radiographs produced were of little practical utility, although doubtless, he adds, "their moral effect on some of the wounded may have been advantageous." The professional service on the *Lismore Castle* was performed by five surgeons who had been engaged for the voyage, as well as by the medical officer of the ship. Five nurses "belonging to honourable Cape families" are described as volunteers, although they received pay at the rate of £100 a year with an additional allowance of one and a half francs to cover their daily expenses; 30 male attendants and two compounders completed the medical establishment. The lifts provided at each of the hatchways, which were capable of raising or lowering a patient while lying at full length in his cot, excited the admiration of Dr. Cassien, who was also favourably impressed by the way the gradient of the companion ladders had been adjusted to meet the requirements of the invalids. "A *monte-charge* (lift)," he says in conclusion, "is an installation which seems to me to be worthy of retention. It is not a fixture and can be readily installed when required."

THE EFFECT OF INTERCURRENT DISEASES ON EPILEPSY.

DR. JULES VOISIN of the Salpêtrière, *Paris*, contributes to the *Semaine Médicale* of March 20th a valuable article based on a large number of observations as regards the effects of intercurrent diseases on the course and prognosis of epilepsy. The following are the chief conclusions obtained as regards the epileptic attacks. 1. The epileptic seizures are lessened in frequency or restrained by an intercurrent attack of erysipelas during the acute stage of the latter, but the fits return during the stage of convalescence. This was noticed in several cases. 2. In one case of anthrax the epileptic fits were absent during the suppurative stage, but the patient died from acute septicæmia. 3. In epileptic patients who have contracted phthisis the fits subside when the tuberculous process is most acute and reappear when the phthisis is ameliorated. This was noted in many cases. 4. In a few cases of diphtheria supervening in the course of epilepsy the fits were absent during the illness but returned during convalescence. 5. In small-pox and in rheumatic fever epileptic fits are diminished during the acute stage only. 6. Epileptic attacks are rendered worse and *more* dangerous in scarlet fever Four epileptics contracted *scarlet fever* and all died on the fourth or fifth day of *illness*, whereas 15 other patients in Voisin's Clinic who contracted scarlet fever and who were *non epileptic* all recovered uneventfully 7. Influenza greatly increases *the* number of epileptic attacks, and its pulmonary complications exert a dangerous effect on epileptics Influenza *tends* to produce the status epilepticus Thus one patient so affected *had 175 fits* in five days and another had the extraordinary *number* of 214 fits in *one day* This *deleterious result has* also been *fully* shown in a recent *these* by Dr Lannois of Lyons

THE EARLY DAYS OF "THE LANCET" A BROKEN LINK

THE death in his ninety third year is announced as having taken place at Godalming on May 10th of Mr Alexander Dickson Mills His name will probably recall to those who have read the "Life and Times of Thomas Wakley" the very early days of THE LANCET'S existence Thomas Wakley's biographer writes on page 223, &c "A few words should be said of Wakley's staff during the first 10 years of THE LANCET, *for had* he not been loyally supported by his assistants he never could have accomplished what he did during the period or have laid the foundation for his great success in the future From the beginning he was helped by Cobbett and Wardrop, but on the paper being transferred to the offices of Messrs Mills, Jowett, and Mills he was introduced to a family with whom he was to remain for many years in *close* contact, and whose assistance to THE LANCET *can* be over estimated with difficulty Mr Mills, senior, had four sons—Samuel, George Ireland, James Basnett, and Alexander Dickson Samuel was in his father's firm and became the head printer to THE LANCET, while the three younger sons joined the staff in different capacities George Ireland Mills *succeeded* to much of Lambert's editorial work *when that* gentleman retired from the staff after the Bransby Cooper case He later became Wakley's *private secretary*, and was for some time his deputy *coroner* James Basnett Mills was a very fine young *scholar* He frequently acted as Wakley's *amanuensis* He eventually took orders, and was classical coach to no less a person than Benjamin Jowett, the *famous* Master of Balliol, who was a son of the partner in the firm of Mills, Jowett, and Mills, while his next *pupil* was Wakley's eldest son Alexander was a proof reader in the establishment when the printing of THE LANCET was removed to Bolt court He was the first *sub-editor* of the paper, and combined the duties *with those* of publisher Alexander Mills's room *formed* the business office of THE LANCET, and here the *meetings of* the staff took place on Friday nights " The task of obtaining materials for the biography was very materially assisted by Mr Alexander Dickson *Mills*, who most kindly lent to us a great many old papers and letters which we could not otherwise have obtained, notably the letter from the founder of THE LANCET to Douglas Jerrold which is printed on p 493 of the *book* Mr Mills until quite recently, at all events, despite his great age, was vigorous and hearty.

THE X RAYS IN THE *DIAGNOSIS* OF THORACIC ANEURYSM

IN the *Edinburgh Medical Journal* for April Dr Hugh Walsham shows the great value of skiagraphy in the diagnosis of thoracic aneurysm In all *doubtful* cases of chest disease a skiagram, he thinks, should be taken Dr Walsham uses a coil giving a 12 inch *spark* The secondary coil has some 15 miles of wire *wound* in 70 sections and is worked by 24 cell accumulators *of* 21 ampere hours' capacity and an electro motive *force* of 16 volts The time of exposure depends a good deal on the patient For obvious reasons fat and muscular persons require a longer exposure than *thin ones*, adults and males *require a longer* exposure than children and females For thin patients about one minute 50 seconds is sufficient, for very muscular patients three or four minutes may be required A knowledge of the normal shadows of the heart and aorta is necessary before skiagrams can be interpreted Normally the *shadows* of the heart *and* aorta are well seen, *and that* of the *aorta* can be traced *up* nearly to the manubrium sterni Dr Walsham relates the following cases in which thoracic aneurysm was first discovered by skiagraphy Case 1 —A man, aged 45 years, had been treated by three physicians *for* intercostal neuralgia The upper dorsal vertebræ were tender on percussion There were no dulness, tracheal tugging, inequality of pupils, or cough, *and* there *was* only slight dyspnœa *Radioscopy* showed a large aneurysm of the thoracic aorta Case 2 —A woman, aged 51 years, was admitted to hospital in 1897 with signs of aortic regurgitation and was discharged considerably improved She returned in 1900 in much the same condition, but pain in the back *from* which *she had* previously suffered was much *worse* *Radioscopy* showed an aneurysm of the descending aorta Case *3* —A woman, aged 58 years, was sent to hospital with the diagnosis of laryngeal phthisis Laryngoscopic examination showed paralysis of the left vocal cord, but this was the only sign of aneurysm Radioscopy showed a large aneurysm of the transverse arch *of* the aorta Case *4 —A man*, *aged* 37 years, was admitted *to* hospital *and* intra thoracic tumour was diagnosed A skiagram showed a large aneurysm of the aorta As an aid in prognosis *skiagraphy* is also useful Fluid blood is almost completely transparent to the x rays, clotted blood is *comparatively* opaque The greater the opacity of the aneurysm the more abundant, therefore, is *the* laminated clot contained *in it*

THE PHARMACEUTICAL SOCIETY OF GREAT BRITAIN

PHARMACISTS have many topics to discuss *just now*, and at the annual dinner of the members of the Pharmaceutical Society held on May *21st* at the *Hôtel* Métropole some important expressions of *opinion* were made in regard to the position of pharmacy and the pharmacist In speaking to the toast of the evening—viz, "The Pharmaceutical Society of Great Britain"—Sir James Crichton Browne, F R S, Vice President of the Royal Institution, said that the work of the pharmacist was *to perfect*, to improve, and to disseminate *means of* alleviating suffering and prolonging life This work was hampered by ignorance and prejudice which must be overcome by education The work of improving the education of chemists and druggists and of maintaining discipline among them was one which was an advantage to the *whole* community and therefore deserved public *support* It had been whispered that the days of *medical men* and druggists were numbered and that faith healing was to reign supreme Though faith healing had been taken up by a certain number of persons of ill balanced minds it was the most blatant and hideous infidelity, ostensibly founded on certain texts but totally ignoring the revelation of the book of nature which was constantly being unfolded by science and teaching the sources of human ills and their appropriate antidotes He believed and knew that notwithstanding the success of the Pharmaceutical Society some *of* its members had a hard struggle, and he *considered* that they should be protected as far as *possible from* all undue competition He therefore ventured to suggest that at some convenient time the

Pharmaceutical Society should direct its attention to the sale of drugs in hospitals to out-patients. He was not desiring to limit the free supply of medicine to the poor, but there was no justification for using charitable funds to take the bread out of the mouth of the poor pharmacist, because if an out-patient could afford to pay for medicine the pharmacist was the proper person to receive the money. Many an out-patient would be the better for some good port wine but he had not heard that any hospital had yet opened a bar or applied for a licence to sell liquor on their premises. The toast of "The Medical Profession" was entrusted to the care of the treasurer of the society, Mr. S. R. Atkins, who said that the society had always tried to inculcate in its members a very high line of conduct. He thought that all would agree that medicine was the only profession apart from the Church which was truly altruistic. Dr. D. MacAlister, chairman of the Pharmacopœia Committee of the General Medical Council, in acknowledging the toast said that he had been for many years endeavouring to bring the British Pharmacopœia, which was their common sacred book, into a condition nearer perfection than it had been before. The work was now before the world and he was gratified to find that it had not been unsuccessful and any success which had been gained was due to the fact that the General Medical Council had been in very close relation with the Pharmaceutical Society in the preparation of the volume. Mr. W. Palmer, M.P, in responding to the toast of "The Houses of Parliament," said that he hoped to be able to promote the interests of the society in connexion with any legislation which might come before Parliament. The banquet was very largely attended, over 200 guests being present, amongst them being Sir Frederick Abel, Bart., F.R S., director of the Imperial Institute; Mr. A. Curtis Cope, of the Royal College of Veterinary Surgeons; Professor J. M. Thomson, F.R S., of the Institute of Chemistry; Professor W. A. Tilden, F.R.S, and Professor N. Collie, F.R.S.

A JUDGE AND JURY ON INFANT INSURANCE

THE connexion between infant mortality and insurance has been often observed, and under such conditions as to suggest, at times very strongly, that there frequently exists between them a relation which is practically that of cause and effect. This was the view taken by a jury which recently returned a verdict of manslaughter against a woman at Darwen. They used the opportunity to express their condemnation of the way in which insurance companies paid premiums on the deaths of children over the age of six months. The presiding judge, Mr. Justice Darling, referred to this practice as one which simply offered a premium to parents to neglect their children or to ensure that they should die at six months. It is refreshing to find a judge and jury express themselves with so much candour and directness, and we believe that no disinterested and honest thinker who has really given his attention to this subject will be disposed to dissent from these views We confess that we have never been able to see the necessity for this system of insurance in our social organisation. The burial of an infant is very far from being a costly matter. It ought to be quite within the scope of thrifty management on the part of even poor parents. It is notorious, moreover, that the sums insured for are often far beyond those required for mere funeral expenses. Equally certain is it that the insurance premiums would in very many, probably in most, cases be allowed to lapse if it were not for the solicitous energy of the agents who collect these subscriptions for the companies they represent. The whole arrangement wears to our mind the aspect of a business venture, not too nice as to its methods. We are thankful, therefore, to a judge and jury who have spoken their minds, and we sincerely hope that a Government which has the country at its back will take up this question in a similar spirit. One consequence of such action will be a diminution in the present rate of infant mortality.

PLAGUE AT THE CAPE OF GOOD HOPE.

A TELEGRAM received at the Colonial Office on May 17th gives the following statistics of plague for the week ending May 11th:—Europeans, eight cases and two deaths; coloured persons, 24 cases and 19 deaths; Malays, five cases and four deaths; East Indians, no cases or deaths; Chinese, no cases or deaths; natives, one case, no death. Total for the week, 38 cases, 25 deaths. The total cases and deaths up to May 11th are as follows:—Europeans, 155 cases and 50 deaths; coloured persons, 280 cases and 138 deaths; Malays, 39 cases and 30 deaths; East Indians, five cases and five deaths; Chinese, one case and no death; natives, 130 cases and 52 deaths. Total up to May 11th, 610 cases and 275 deaths. Four cases have been notified at Port Elizabeth.

THE ROYAL UNIVERSITY OF IRELAND.

SOME amusement has been caused in the medical profession in Ireland by certain proceedings at the Senate of the Royal University on May 3rd, the nature of which has transpired sufficiently to allow a judgment to be formed. The facts are simply as follows. The question of the desirability of appointing extern examiners as in other universities has been before the Senate for about two years. A strong committee reported on the question and the Senate at a large meeting in February adopted the report recommending the appointment of extern examiners in surgery, midwifery, pathology, and ophthalmology; yet it is common knowledge that at a small meeting of the Senate on May 3rd (without any previous notice on the agenda paper) it was agreed in substance that no further steps should be taken as to the appointment of extern examiners till Dr. W. A. McKeown and Professor T. Sinclair, who had moved in the matter, should define what was meant by the term "extern" The Senate were led in this matter, which seemed to be a purely medical one, by the opinion of the medical members who chanced to be present. The action of the Senate means that the Belfast medical representatives are to travel to Dublin to define the meaning of a word in common use in universities. The question of extern examiners is not merely a medical one; it is a general one The failings of county councils and of boards of guardians in the conduct of business might be passed over, but that the senate of a university should have discussed for two years the appointment of "extern" examiners, and after having agreed to make such appointments should admit that they do not know what they have been talking about, is to the ordinary mind incomprehensible, especially when every one of them is supposed to be intimately acquainted with university terms and practices. To anyone who knows the medical schools of Ireland and the peculiar constitution of the medical examining boards of the Royal University as well as the extent to which some medical examiners have been in the habit of asking questions to which sufficient answers can only be given by students who have been taught by themselves, the meaning of the word "extern" can hardly be misunderstood. It means, in fact, that any person connected with any university, college, or hospital in Ireland should not be eligible. It is further felt that, in the public interest, extern examiners should be appointed for the medical examinations in Trinity College, Dublin, the Royal College of Surgeons in Ireland, and the Royal College of Physicians of Ireland. The standard of the Royal University of Ireland is high, but that of the institutions named is not always satisfactory. Only in this way can the malign influence of examining after merely local traditions, ideas, and practices, too common in Ireland, be effectually and for ever killed.

THE CARE OF NEGLECTED CHILDREN IN THE UNITED STATES.

AN interesting report has been issued recently by the Children's Aid Society of Philadelphia which completes the nineteenth year of its existence as a philanthropic institution. The work of the society includes the care and bringing up of foundlings and "neglected children." The report shows that at the beginning of the year 1900 803 children were under care, and that 140 fresh cases were received during the course of the year. The children were taken from various classes and strata of society and included the following · orphans, 33 ; half-orphans, 97 ; deserted children, 39 ; children of dissolute parents, 63 ; children of unmarried parents, 43 ; children of invalid or insane parents, 26 ; children rescued from ill-treatment, 88 ; children of parents living but separated, 93 ; children of parents who could not control them, 42 ; vagrants, 10 ; children received from criminal courts by magisterial orders, 56 ; children from almshouses, 335 ; and children from other charitable societies, 18. Depravity and immorality, often combined with disease and dirt, were generally found to be among the circumstances in which most of the children began life, and the report states that taking the little ones from their noxious surroundings, housing them with kindly foster-parents, and educating them in order to enable them to earn a living constituted the only means of saving many from the prison or workhouse—a service which, unobtrusively pursued, was of inestimable value to the community. The success achieved by the Philadelphia Children's Aid Society must be regarded as worthy not only of praise but of emulation.

PROSPECTS IN GENITO-URINARY SURGERY.

IN an address on this subject delivered at Cornell University, U S A , Mr. Reginald Harrison touched many points of great interest Allusion to the great advance made by Bigelow in the discovery of the operation of litholapaxy, which was no doubt influenced by the investigations of another American surgeon (Otis) into the size of the male urethra, formed an appropriate introduction to his lecture Bigelow's operation has one disadvantage—it is liable to be followed by recurrence of stone. This leads to the question of calculus formation, a subject first investigated by Rainey of St. Thomas's Hospital, who as far back as 1857 demonstrated a method of making calculi artificially by what he described as "molecular coalescence" The more recent work of Dr. Vandyke Carter and Dr. W. M. Ord has confirmed and extended his views. From these investigations Mr. Harrison concludes that for the artificial production of calculi by molecular coalescence precision in regard to details is necessary. The repetition of Rainey's experiments and their development with a view to discovering methods of preventing the formation of calculi and of cure in cases in which they have formed constitute, as Mr. Harrison suggests, work which might well engage the attention of laboratory workers. Turning to the subject of "enlarged prostate" he pointed out that from the therapeutic standpoint this term is beginning to be recognised as too vague. When micturition is seriously interfered with and the condition is unmanageable by the catheter the precise nature, shape, and relations of the prostate can now be determined by the cystoscope preliminarily to surgical treatment—a procedure of great advantage. For example, in a case of rapidly recurring stone in the bladder it was found by cystoscopic examination, before repeating Bigelow's operation for the third time within two months, that a pedunculated process of prostatic tissue, just to be detected by rectal examination, had converted practically the lower and posterior segment of the bladder into a box with a moveable lid formed by the prostate. This by confining a certain quantity of urine brought about its decomposition and led to the formation of a phosphatic stone Thus the calculus was simply a natural result of the condition of the parts. Mr. Harrison practised the median perineal *boutonnière* operation and twisted off the narrow-necked growth. There are three varieties of enlarged prostate which require different treatment General hypertrophy, usually associated with congestion, gives good results when treated by vasectomy, castration, and possibly by Bottini's operation. A pendulous prostatic growth is not suited to any of these operations but is best treated in the manner just described Obstruction depending on the presence of an interstitial adenoma has been most successfully dealt with by enucleation through a suprapubic incision.

RETIREMENT OF THE DIRECTOR-GENERAL, A M S.

WE understand that Surgeon-General J. Jameson, C.B., Director General of the Army Medical Service, is retiring on June 1st next with the maximum pension. The occasion will, we hope, afford a fitting opportunity for giving to the retiring officer the titular distinction which was anticipated for him in the recent Gazette

WE have reason to hope that the report of the Commission of Inquiry into the management of the National Hospital for the Paralysed and Epileptic, Queen square, will be found very satisfactory for the cause of representation of the medical staff on the board. The Commission closed its sitting last week and the report will soon be published.

THE forty-first annual dinner of King's College, London, will be held at the Trocadéro Restaurant, on Monday, June 24th, the Hon. Mr. Justice Byrne in the chair. Communications should be made to Mr. John Chapman, honorary secretary of the committee.

To the names of medical candidates for the coronership of the City of London there should be added that of Mr. G. Russell Beardmore, who is also a barrister-at-law.

MEDICAL MEN AND THE WORKMEN'S COMPENSATION ACTS.

II [1]

As we pointed out in our first article the medical practitioner has duties imposed upon him by the Workmen's Compensation Act of 1897 beyond those which consist in attending or examining a man injured in an accident, and giving evidence either on his behalf or that of his employer at the trial of an action for compensation. These duties are defined, not in the Act, which is a short one, but in the schedules and regulations appended to it. In the Act itself we see nothing, beyond what we have already mentioned, that concerns medical men even indirectly, except possibly the proviso that before proceedings are taken under the Act notice must be given to the employer of the accident, and that this notice must be given "as soon as practicable after the happening" of the accident, or in any case within six months of the happening of it, or, where death has resulted, within six months of the death. Sometimes, perhaps, the question whether it was practicable for this notice to be given earlier may call for medical evidence. The notice, however, need not necessarily be given by the victim of the accident himself if he be alive, but is naturally given in many cases by his friends. It must, besides giving the injured man's name and address, "state in ordinary language the cause of the injury and the date at which it was sustained." It should evidently be in writing, although nothing is said expressly on this point, and it will be noted that no mention is made of any statement in it as to the nature and extent of the injuries sustained. The next step prescribed arises under the third section of the first schedule, which runs as follows:—

---

[1] Part I. appeared in THE LANCET of May 18th, 1901, p. 1420.

> *Schedule I. (3).*—Where a workman has given notice of an accident he shall, if so required by the employer, submit himself for examination by a duly qualified medical practitioner provided and paid by the employer, and if he refuses to submit himself to such examination, or in any way obstructs the same, his right to compensation and any proceeding under this Act in relation to compensation shall be suspended until such examination takes place.

It will be observed that this examination must be by a duly qualified practitioner, which means one duly registered, and the nature of the examination and of the evidence that will have to follow it will be gathered from what follows as to the scale of compensation. It is not necessarily a final examination, in that there may be subsequent examinations, to which we shall refer, which may corroborate or correct the conclusion arrived at. It will be noted that the medical practitioner employed under this section is to be "provided and paid by the employer." In cases in which payment is not made before the examination takes place it is advisable for the medical man who wishes to prevent subsequent disputes to be sure that the employer has "provided" him and is aware of his liability towards him.

The amount of compensation may be agreed between the employer and the workman or his representatives. Subject to such agreement it is to be settled by arbitration, the county-court judge being the usual arbitrator. It may be mentioned, in passing, that the county-court judge and the arbitrator appointed by him have power to compel the attendance of witnesses and the production of documents as if the matter were an action in the county court. With the assessment of compensation where death has occurred the medical practitioner, as a rule, has little to do and his evidence will be confined to the fact of death and its cause. In the case, however, of a deceased person who has left no dependents the reasonable expenses of his medical attendance and burial, not exceeding £10, can be recovered as compensation under Schedule I. (1. A. iii.). On this contingency occurring the legal personal representative of the deceased person is the proper person to apply for the settlement of the claim by arbitration and if there be no such representative then any person to whom such expenses are due should apply. Such applicant must join as applicant or respondent any other persons to whom he knows such expenses are due. If the amount awarded is not sufficient to pay all claims in full the amount awarded will be apportioned by the judge or arbitrator (see Workmen's Compensation Rules, 6). In the case where an injured workman is entitled to compensation for injuries which have not proved fatal the details of the method by which the payments ordered to be made to him are calculated do not concern the medical practitioner. It is enough for him to know that the compensation is based upon weekly earnings and is to compensate for weekly earnings lost during the period of incapacity which follows the first two weeks of such incapacity. For the first two weeks after the accident the Act does not compensate the injured man, and the compensation takes no account of pain and suffering such as are reckoned in assessing damages at common law or under the Employers' Liability Act, nor does it include expenses of medical attendance. We have seen the extent to which these last are provided for in the case of death. The compensation when fixed is paid weekly and the 11th section of Schedule I. provides as follows:—

> *Schedule I (11).*—Any workman receiving weekly payments under this Act shall, if so required by the employer, or by any person by whom the employer is entitled under this Act to be indemnified, from time to time submit himself for examination by a duly qualified medical practitioner provided and paid by the employer or such other person; but if the workman objects to an examination by that medical practitioner, or is dissatisfied by the certificate of such practitioner upon his condition when communicated to him, he may submit himself for examination to one of the medical practitioners appointed for the purposes of this Act, as mentioned in the second schedule to this Act, and the certificate of that medical practitioner as to the condition of the workman at the time of the examination shall be given to the employer and workman and shall be conclusive evidence of that condition. If the workman refuses to submit himself to such examination or in any way obstructs the same his right to such weekly payments shall be suspended until such examination has taken place.

The rules which govern reference to medical referees prescribe that such references as they deal with shall be made through the county court only. The section above quoted is framed to provide for the workman going in the circumstances described direct to the referee. In such a case the referee will have to look to the workman for a reasonable fee and should receive it before making his examination (Home Office Memorandum, dated April 19th, 1898). It will be noted that this section provides against a man who has been awarded compensation malingering and exaggerating the duration of his incapacity for work and that it enables not only the employer to have the workman re-examined by a medical man, but also enables a person to do so by whom the employer is entitled to be indemnified—that is to say, in most cases, the insurance company with whom the employer has insured against this class of risk, or in other cases a stranger who has by his negligence contributed towards the accident.

The twelfth section of Schedule I. provides that:—

> Any weekly payment may be reviewed at the request either of the employer or of the workman, and on such review may be ended, diminished, or increased subject to the maximum above provided, and the amount of payment shall in default of agreement be settled by arbitration under this Act.

With regard to this we need hardly point out that the discontinuance, increase, or diminution of the weekly payments must depend chiefly upon what the medical practitioner has to say with regard to the workman's capacity for labour, and that the last word as to this will rest with the medical referee where there is a difference of opinion on the part of those who give evidence on his behalf or that of his employer. The employer only, and not the persons who indemnify him, is entitled, apparently, to the benefit of this last-quoted section.

ASYLUM REPORTS.

City of London Asylum, Stone, near Dartford (Annual Report for 1900).—The average number of patients resident during the year was 498 and comprised 244 males and 254 females, showing an increase of 13 as compared with 1899. During the year 184 patients were admitted, of whom 108 were males and 76 were females. Dr. Ernest W. White, the medical superintendent, states in his report that "this is the largest number of admissions in one year since the opening of the asylum." Seven of the males and 10 females were readmissions. As regards bodily health 43 males and 30 females were weak, while four males and seven females were in bad health. Regarding the mental condition of the 184 patients admitted five males and two females were suffering from general paralysis of the insane, 27 males and 15 females from the more acute forms of mania, and 18 males and 19 females from acute melancholia. The admissions included 18 cases of chronic mental disease. As regards the causation of insanity in the admissions, heredity, intemperance, and previous attacks were the chief factors, after which followed such conditions as old age, worry and anxiety, and bodily diseases. The number of patients discharged as recovered during the year was 74—viz , 49 males and 25 females, or 14 8 per cent. of the average number resident The recovery-rate has been reduced somewhat by the chronic cases admitted as mentioned above. The deaths during the year amounted to 31, including 16 males and 15 females, or 6 2 per cent. of the average number resident. Of the 31 deaths four resulted from general paralysis of the insane, four from chronic Bright's disease, four from melancholia, three from mania, four from pulmonary tuberculosis, three from epilepsy, and three from senile decay. The casualties consisted of one case of dislocation of the shoulder by a fall, one of fracture of the left femur in a patient pushed down by another, one of fracture of the forearm by a fall, and one of a fractured rib caused by a blow from a patient. Four patients escaped but all were brought back to the asylum within 24 hours of escaping. Forty-eight paying patients are accommodated in the asylum, 23 being males and 25 females. The system of having paying patients continues to show success. The general health of the institution was good

Epidemics of influenza broke out in October and in January affecting both patients and staff In January there were three cases of enteric fever and in May two cases, the patients in all of which cases recovered Ulcerative colitis did not occur in a single case The working of the farm for the year showed a net profit of £452 10s The live stock were healthy during the year, 491 head of poultry were reared and over 27 000 fresh eggs were received from the farm during the year The Lunacy Commissioners state in their report that the post mortem records and case books are intelligently kept

Barnwood House Hospital for the Insane, near Gloucester (*Annual Report for 1900*) —The average number of patients resident during the year was 153, and comprised 63 males and 90 females 27 patients were admitted during the year, this being the smallest number admitted in any year since 1891 The average admission rate for the five years beginning 1895 was 34 6 Dr J G Soutar, the medical superintendent, states in his report that many of the cases admitted were of an unpromising nature as far as recovery was concerned, 11 of the 27 being regarded as incurable Two patients came to the hospital as voluntary boarders, but it was found necessary to place them under certificates Applications have often been received for the admission of other voluntary boarders, comparatively few of whom, however, were regarded as suitable These applicants were of two kinds first, those whose mental ailments was so slight that, in the interest of the patients, it was necessary to advise that other methods of treatment should be followed "rather than that they should be subjected to the somewhat depressing circumstances and influences which even with the strictest classification, are in some degree inevitable in an asylum', secondly, those patients whose friends desired to place them in an asylum, but without certification, on the plea that the illness was "hysterical" or due to "eccentricity,' whereas the true mental state was either that of mania or of delusional insanity The alleged causes of insanity in those admitted were "as varied and as unsatisfactory as usual," but in 37 per cent of the cases an hereditary tendency to mental disorder was ascertained to exist and in many of the "recent' cases there was marked failure of the general health During the year nine patients—five males and four females—were discharged as recovered, or 5 8 per cent of the average number resident "This compares unfavourably with the recovery rate for 1899 We have to go back to 1882 to find a year in which the percentage of recoveries on admissions was so low as it was in 1900' The explanation of this fact is that there have been very few cases of acute and curable insanity among the admissions Two female patients were discharged to their homes as relieved, and 13 patients were discharged as not improved The deaths during the year amounted to seven (four males and three females), or 4 57 per cent of the average number resident Of the deaths one each was due to phthisis, intestinal obstruction, and cardiac disease, and two each to pneumonia and general paralysis The only casualty of a serious nature was a fracture of the thigh sustained by an old female patient from an accidental fall There were no outbreaks of infectious diseases during the year and the general health of the patients and the staff was good No structural alterations were made in the hospital during the year, but the usual attention was given to repairs, decorations, and furnishing Of 10 male attendants one died two were called up for service in South Africa, two were dismissed for breach of discipline, and five left by their own wish Only four female attendants left during the year —three of these left to be married The Lunacy Commissioners state in their report that the medical case books were well and carefully kept They were of opinion that a Turkish bath would prove a useful addition to the hospital

PROVISIONAL RETURNS OF THE CENSUS OF 1901.

II[1]

THE Registrar General has recently issued a further instalment of the census returns, showing the enumerated populations of the several administrative counties of England and Wales The figures for the metropolis and for the English and Welsh county boroughs have already been given in THE LANCET; we are, therefore, now able to show the totals for England and Wales They are as follows —

County of London	4,536 034
Other administrative counties	18,850 492
County boroughs	9,139 190
Total, England and Wales	32 525,716

In the appended table we have worked out the differences in the populations of the several counties at the last two censuses, but the figures must be taken as approximate only and as subject to revision after the enumeration books have been scrutinised at the Census Office The results, however, as herewith presented are believed to be fairly reliable

Since the census of 1891 the population of England and Wales in the aggregate has increased by 3 523,191, or 12 15 per cent, the percentage increase during the preceding intercensal period having been 11 65

It will probably be some considerable time yet before we shall know the comparative rates of increase of "urban" and "rural" England respectively, but if we divide England and Wales into two sections, the one consisting of the 67 county boroughs (including London), and the other of the 62 administrative counties, the returns show that the former areas in the aggregate have increased faster than the latter by fully 1½ per cent Of the 62 administrative counties of England and Wales 48 show an increase of population since the previous census, while 14 show a decrease Of the latter Oxford, Devon, Norfolk, and West Suffolk are the counties the populations of which are apparently declining most rapidly It is probable, however, that the more decidedly rural portions of certain other agricultural counties, such as Wilts, Bedford, Bucks, Somerset, and Dorset, would also show a decrease, perhaps even greater than either of the foregoing, if the numbers living in the urban parts of these counties could be counted separately and eliminated from the totals This, however, cannot be done until the detailed returns of the urban and rural areas are available

In our opinion there is no doubt that a real diminution of population in the purely agricultural districts of England and Wales is in progress, although the figures at present at our disposal do not enable a correct estimate to be formed as to its extent It is in the north western and northern counties and in the home counties of England that the growth of the population since 1891 has been the most rapid Thus, the population of Essex has increased in round numbers by 238 000, that of Middlesex by 249,000, that of Kent by 129 000, and that of Surrey by 100 000 Taking these four counties together, the population has increased in the aggregate from 2 347 808 to 3 064 274, or by more than 717 000

We have before expressed an opinion, which the results of the recent census confirm, that a period of more than five years should not be allowed to intervene between one census and another But even with a quinquennial census it is evident from the metropolitan returns that estimates of the population for subsequent years are frequently unreliable It is, however, obviously desirable, whether or not a census of England in 1906 is decided upon, that some method more efficient than that at present in use of estimating the population for intervening years should be adopted It has before been suggested by competent authority that a true return of inhabited houses in towns of sufficient size would supply a satisfactory basis for such estimates This plan has been tried in past years for a few of the larger English towns, but with only partial success, probably because of local difficulties which were not effectually dealt with at the time We are, however, advised that a competent actuary would readily suggest a form of rate book which would show with sufficient accuracy the number of houses actually occupied in a given town from year to year, and that such a return, whilst subserving the purposes of the local rating authorities, would furnish the means of arriving at a fairly reliable estimate of population For it is well known that when the totals are sufficiently large the average number of persons per house is practically constant for the same town

In the course of a few weeks we hope to receive the preliminary census report complete, which will furnish all the information derivable from the unrevised returns that are made by the local registrars throughout the country

---

[1] The first instalment was noticed in THE LANCET of May 11th 1901 p 1357

*Population Enumerated in 1891 and 1901 in the 62 Administrative Counties of England and Wales.**

Areas.	Population. 1891.	Population. 1901.	Difference in 1901.
England and Wales	29,002,525	32,525,716	3,523,191
62 administrative counties ...	20,935,597	23,386,526	2,450,929
67 county boroughs	8,066,928	9,139,190	1,072,262
ENGLAND.			
Administrative counties.			
Bedfordshire	161,378	171,699	+ 10,300
Berkshire	176,119	180,366	+ 4,247
Buckinghamshire	186,680	196,843	+ 10,163
Cambridgeshire	120,645	120,634	− 11
Isle of Ely	63,340	64,494	+ 1,154
Chester	535,944	601,042	+ 65,098
Cornwall	322,571	322,857	+ 286
Cumberland	266,549	266,904	+ 355
Derbyshire	425,472	504,577	+ 79,105
Devonshire	442 287	436,913	− 5,374
Dorsetshire	193,542	202,093	+ 8,551
Durham	720,793	833,310	+ 112,517
Essex	578,471	816,524	+ 238,053
Gloucestershire	323,930	331,515	+ 7,535
Herefordshire	115,762	114,150	− 1,612
Hertfordshire	226,587	258,044	+ 31,457
Huntingdonshire	55,015	54,127	− 888
Kent	807,328	936,003	+ 128,675
Lancaster	1,564,696	1,827,330	+ 262,634
Leicestershire	201,639	225,895	+ 24,256
Lincolnshire—Holland	76,204	77,583	+ 1,379
,, Kesteven	105,361	103,957	− 1,404
,, Lindsey	199,051	206,497	+ 7,446
London	4,228,317	4,536,034	+ 307,717
Middlesex	542,894	792,225	+ 249,331
Monmouthshire	203,426	230,792	+ 27,366
Norfolk	318,301	313,438	− 4,863
Northamptonshire	189,218	207,466	+ 18,248
Soke of Peterborough	35,249	41,119	+ 5,870
Northumberland	319,730	387,728	+ 67,998
Nottinghamshire	231,745	274,683	+ 42,938
Oxfordshire	143,753	137,118	− 6,635
Rutlandshire	20,659	19,708	− 951
Shropshire	236,827	239,297	+ 2,470
Somersetshire	378,166	385,059	+ 6,893
Southampton	334,194	377,121	+ 42,927
Isle of Wight	78,672	82,387	+ 3,715
Staffordshire	771,258	879,625	+ 108,367
Suffolk—Eastern	183,405	189,153	+ 5,748
,, —Western	121,350	117,535	− 3,815
Surrey	419,115	519,522	+ 100,407
Sussex—Eastern	227,699	261,691	+ 33,992
,, Western	140,987	151,540	+ 10,553
Warwickshire	301,412	347,693	+ 46,281
Westmorland	66,215	64,411	− 1,804
Wiltshire	262,551	271,372	+ 8,821
Worcestershire	297,389	358,357	+ 60,968
Yorkshire—East Riding	141,180	145,877	+ 4,697
,, North Riding	284,015	285,631	+ 1,666
,, West Riding	1,294,423	1,460,857	+ 166,434
WALES			
Administrative counties.			
Anglesey	50,098	50,475	+ 377
Brecknockshire	51,393	54,211	+ 2818
Cardiganshire	63,467	61,068	− 2399
Carmarthenshire	130,566	135,320	+ 4754
Carnarvonshire	117,586	125 654	+ 8068
Denbighshire	118,979	131,588	+ 12 609

Population Enumerated in 1891 and 1901 in the 62 Administrative Counties of England and Wales—continued.

Administrative counties.	Population. 1891.	Population. 1901.	Difference in 1901.
Flintshire	77,041	81,487	+ 4,446
Glamorganshire	467,954	601,080	+ 133,128
Merionethshire	48,859	48,786	− 73
Montgomeryshire	58,003	54,892	− 3,111
Pembrokeshire	88,296	87,856	− 440
Radnorshire	21,791	23,263	+ 1,472

* The figures for 1901 are unrevised.

THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

THE festival dinner of the Medical Graduates' College and Polyclinic was held at the Hotel Cecil on Wednesday, May 22nd, when the Right Honourable A. J. Balfour, M.P., presided.

The loyal toasts, which were proposed by the chairman, having been duly honoured,

Mr. **BALFOUR** gave the toast of the evening. He said that he proposed the toast with deeper feelings of responsibility than usually oppressed a person in his position, because he knew that he was pleading a cause which had not behind it any great wave of popular feeling or emotion, a cause which did not readily or immediately appeal to the man in the street, and yet it was a cause in which the whole community were deeply and profoundly interested. It was a cause which touched every one of them as human beings and which affected not only their own happiness, their own lives, and the happiness and the lives of those nearest and dearest to them, but the future generation whom it was their business to aid. The "Polyclinic" was an institution which was in this country as yet young, though well known and fully recognised in almost every civilised country in the world. It was an institution with many sides of activity and utility. He would not attempt to dwell upon them all, but there were three which would specially appeal to his audience. The first sign of the activity of this institution might be perhaps described as strictly and directly philanthropic—that is to say, it brought directly home to those most in need of it and to those who could not otherwise afford it medical assistance, medical advice, and medical knowledge which would not under other circumstances be at their command. For the Polyclinic did something which the great hospitals in this country could not do and did not attempt to do. The Polyclinic did give, and hoped to give in ever-increasing measure, to a class who could not otherwise get it, expert medical advice which at present was at the command only of the well-to-do. The Polyclinic was also designed to give opportunities of medical education to those who had gone through the ordinary courses which qualified a man to practise but who had little opportunity of keeping themselves abreast with the ever-growing mass of medical knowledge. There was yet a third branch of the activity of the Polyclinic to which he would venture to call the attention of that audience, and it was perhaps the branch which they in this country were most apt to neglect. The growth of medical knowledge was one of the most remarkable scientific facts of the last half-century, for it was in the last half-century that the medical profession had become not merely admirable masters of the practical art of healing, but acquainted scientifically as well as empirically with the causes of many of those maladies with which they had to deal. Could they, he asked, honestly say that in the great development of medical knowledge and therapeutic science this country had taken the lead which it ought to have taken? When he had made all allowance for the great claims on the gratitude of the world for anæsthetics and antiseptics the fact remained, so far as he could judge, that we could not say as compared with Germany or with France or with Italy that we had done all that perhaps we might have done as pioneers of medical discovery. If the question were to be answered in the negative did they not think that the public, the unprofessional and the unscientific public, were in part to blame for that state of things? Did they think that England had shown a recognition of the duties which fell upon her in this matter? They were proud to say that in this country they left to private enterprise and to private benevolence duties which in other and less fortunate countries were entrusted to the Government That was true, but if that policy was to be successful they must have the private enterprise and private benevolence, and had they shown the possession of those great qualities in that particular to the extent that they ought to have done? Personally he grieved to say that he had no doubt as to the answer that should be given He did not believe that any man who considered the equipment of their universities of their medical schools and of other places of education could honestly say in his heart that they had done enough to equip research with all the costly armoury that research must have in these modern days The richest country in the world lagged behind Germany, France Switzerland, and Italy Was it not disgraceful? Were they too poor or were they too stupid? Did they lack the imagination required to show what these apparently remote and abstract studies did for the happiness of mankind? They could appreciate that which obviously and directly ministered to human advancement and human felicity, but they seemed somehow or another to be deficient in that higher form of imagination, in that longer sight, which recognised in studies deficient in obviously necessary or immediate result the foundation of a knowledge which would give far greater happiness to mankind than any mere immediate material industrial advancement could possibly effect He greatly feared that lacking that imagination they had allowed themselves to flag in the glorious race which was now run by civilised countries in the pursuit of knowledge, and that they had permitted themselves to far too large an extent to depend upon others for those additions to knowledge which surely they might have made for themselves He hoped that the result of that evening might be that the Polyclinic which was devoted to the great cause of research might obtain that assistance which was required to make it the useful institution that it potentially was and that it only required their aid fully and perfectly to become He hoped he had not pleaded in vain, at all events the cause was one in which he firmly believed, and if this country allowed itself to be passed in the race he should regard it as a greater national calamity than the loss of a market here or some national contretemps there He should feel that the highest life of the nation had proved itself inadequate to the national necessities and needs

Sir W BROADBENT, in responding, said that it was impossible to over estimate the gain to the Polyclinic of Mr Balfour s advocacy He was not only leader of the House of Commons but in this country one of the leaders of thought At the Polyclinic no patient was made the subject of experiment which was not as much for the benefit of the patient as of the hospital, and the patient was watched with a vigilance and intelligence which was not possible in the best organised hospital

Mr [illegible] [illegible] ilo was [illegible] world, [illegible] to the [illegible] of their cases if it would be of service to their fellow creatures

The DUKE of MARLBOROUGH then proposed the toast of "The Empire," to which Sir J [illegible] for South Australia, replied, rema [illegible] was essentially an Imperial Instit [illegible] the Mecca of medical lore

Mr LIONEL PHILLIPS also responded, and the "Health of the Chairman," proposed by the BISHOP of LONDON, terminated the proceedings

VITAL STATISTICS

HEALTH OF ENGLISH TOWNS

In 33 of the largest English towns 6704 births and 3689 deaths were registered during the week ending May 18th The annual rate of mortality in these towns, which had declined from 20 2 to 16 5 per 1000 in the seven preceding weeks, rose again last week to 16 8 In London the death-rate was 15 8 per 1000, while it averaged 17 4 in the 32 provincial towns The lowest death rates in these towns were 8 9 in Croydon, 12 6 in Brighton, 12 8 in Leicester, and 14 0 in Oldham; the highest rates were 20 0 in Liverpool, 20 7 in Manchester, 22 0 in Sunderland, and 22 1 in Preston The 3689 deaths in these towns included 372 which were referred to the principal zymotic diseases, against 394 and 381 in the two preceding weeks, of these, 150 resulted from whooping cough, 81 from measles, 48 from diarrhœal diseases, 45 from diphtheria, 31 from scarlet fever, 16 from "fever" (principally enteric), and one from small pox No death from any of these diseases occurred last week in Huddersfield, in the other towns they caused the lowest death rates in Plymouth, Norwich, and Newcastle, and the highest rates in Swansea, Salford, Sunderland, and Gateshead The greatest mortality from measles occurred in Portsmouth, Wolverhampton, Birmingham, and Sunderland, and from whooping cough in West Ham, Wolverhampton, Bristol, Birkenhead, Preston, Bradford, Hull, Sunderland, and Gateshead The mortality from scarlet fever, from "fever," and from diarrhœal diseases showed no marked excess in any of the large towns The 45 deaths from diphtheria included 14 in London four in Burnley, four in Leeds, three in Sheffield, and three in West Ham One fatal case of small pox was registered in Liverpool, but not one in any other of the 33 large towns; and no small pox patients were under treatment in any of the Metropolitan Asylums hospitals during the week ending May 18th The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2052 against 1705 and 1913 on the two preceding Saturdays, 323 new cases were admitted during the week, against 198, 371, and 397 in the three preceding weeks The deaths referred to diseases of the respiratory organs in London, which had been 286, 251, and 237 in the three preceding weeks, rose again last week to 249, but were 46 below the corrected average The causes of 30, or 0 8 per cent, of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner All the causes of death were duly certified in London, West Ham, Leicester, Bradford, Newcastle, and in 13 other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Blackburn, and Sunderland

HEALTH OF SCOTCH TOWNS

The annual rate of mortality in the eight Scotch towns, which had decreased from 24 1 to 19 3 per 1000 in the six preceding weeks, rose again to 20 2 during the week ending May 18th, and was 3 4 in excess of the mean death rate during the same period in the 33 large English towns The rates in the eight Scotch towns ranged from 16 0 in Dundee and 18 9 in Perth and in Paisley to 21 6 in Greenock and 23 5 in Perth The 633 deaths in these towns included 41 which resulted from whooping cough, 18 from diarrhœa, 15 from measles, six from diphtheria, four from "fever," three from small-pox, and two from scarlet fever - In all, 89 deaths were referred to these principal zymotic diseases last week, against 83 and 99 in the two preceding weeks These 89 deaths were equal to an annual rate of 2 8 per 1000, which was 1 1 above the mean rate last week from the same diseases in the 33 large English towns The fatal cases of whooping-cough, which had been 39 and 49 in the two preceding weeks, declined again last week to 41, of which 18 occurred in Glasgow, 14 in Edinburgh, five in Dundee, and two in Leith The deaths from diarrhœa, which had been 12 and 20 in the two preceding weeks, declined again to 18 last week, and included 10 in Glasgow, four in Edinburgh, and two in Dundee The fatal cases of measles, which had been 17 in each of the two preceding weeks, decreased last week to 15 of which nine were registered in Glasgow and four in Edinburgh The deaths from diphtheria, which had been two and four in the two preceding weeks, further rose to six last week, and included four in Glasgow, where two of the four fatal cases of "fever" also occurred The deaths from small pox, which had been three three, and one in the three preceding weeks, rose again to three last week, and were all registered in Glasgow The deaths referred to diseases of the respiratory organs in these towns, which had been 169, 125, and

116 in the three preceding weeks, further declined last week to 101, but were 17 above the number in the corresponding period of last year. The causes of 28, or more than 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 29 4, 26·5, and 27·4 per 1000 in the three preceding weeks, was again 27·4 during the week ending May 18th. During the past four weeks the death-rate in the city has averaged 27·7 per 1000, the rates during the same period being 16·6 in London and 22·2 in Edinburgh. The 182 deaths of persons belonging to Dublin registered during the week under notice were equal to the number in the preceding week, and included 10 which were referred to the principal zymotic diseases, against 10, 13, and 15 in the three preceding weeks; of these, eight resulted from whooping-cough, one from "fever," and one from diarrhœa. These 10 deaths were equal to an annual rate of 1·5 per 1000, the zymotic death-rate in London being also 1·5, while in Edinburgh it was 4 0 per 1000. The fatal cases of whooping-cough, which had been eight, nine, and seven, were again eight last week. The 182 deaths in Dublin during the week under notice included 30 of children under one year of age and 46 of persons aged upwards of 60 years; the deaths of infants corresponded with the number in the preceding week, while those of elderly persons showed a slight decline. Nine inquest cases and nine deaths from violence were registered during the week; and 74, or more than two-fifths, of the deaths occurred in public institutions. The causes of nine, or nearly 5 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

Inspector-General of Hospitals and Fleets Henry Charles Woods, M.V.O., has been placed on the retired list.

The following appointments are notified:—Fleet Surgeon J. H. Beattie to the *Durham*. Staff Surgeons: R. H. J. Browne to the *Osborne*, and R. H. Nicholson to the *Cressy*. Surgeons: N. H. Harris to the *Cressy*; H. L. Geoghegan to the *Herald*; and W. E. Gribbell to the *Diadem*.

ROYAL ARMY MEDICAL CORPS.

Colonel J. F. Supple, C B., has been transferred from South Africa to India for duty. Major Townsend, Major G. B. Russell, Captain H. A. Hinge, and Captain J. R. McMunn have arrived home from India.

Civil Surgeon Matthias Frederick Foulds to be Lieutenant.

INDIA AND THE INDIAN MEDICAL SERVICES.

The King has approved of the retirement of Lieutenant-Colonel Alexander John Willcocks and Lieutenant-Colonel Hugh McCalman.

VOLUNTEER CORPS.

Artillery: 1st Shropshire and Staffordshire: George Mackie to be Surgeon-Lieutenant. *Rifle:* 2nd Volunteer Battalion the Duke of Cornwall's Light Infantry: Surgeon-Lieutenant J. C. Mackay to be Surgeon-Captain. 3rd Volunteer Battalion the Manchester Regiment: Brigade-Surgeon-Lieutenant-Colonel J. Duncan is borne as Supernumerary whilst serving with the Royal Army Medical Corps in South Africa.

VOLUNTEER INFANTRY BRIGADE.

Clyde: Surgeon-Lieutenant-Colonel W. Wilson, 1st Volunteer Battalion the Royal Scots Fusiliers, to be Brigade-Surgeon-Lieutenant-Colonel on appointment as Senior Medical Officer to the Brigade.

SOUTH AFRICAN WAR NOTES.

Major C. C. Reilly, R.A.M.C., Lieutenant E. P. Hewitt, R.A.M.C., Lieutenant R. W. Michell, R.A.M.C., and Lieutenant J. Davies, M.M.S.C., are on passage home.

The following officers have arrived in England from South Africa: Surgeon-Major W. R. Crooke-Lawless, Coldstream Guards; Civil Surgeons J. Bruce, E. W. R. Crossland, H. W. Bruce, E. Mitchell, and A. H. Kirkman.

The following officers have been discharged from hospital for duty.—Captain G. S. McLoughlin, R A M.C., Captain H. G. Martin, R.A.M.C. Tasmanian Bushmen: Surgeon A. B. Browther and Surgeon C. Mattie

The condition of Civil Surgeon Sowden is reported to be unchanged.

It is proposed to inaugurate a stationary hospital of 50 beds at the Yeomanry depôt, Elandsfontein.

VOLUNTEER MEDICAL STAFF CORPS, LONDON COMPANIES: DINNER TO MEMBERS RETURNED FROM SOUTH AFRICA.

Surgeon-Lieutenant-Colonel J. E. Squire and the officers, non-commissioned officers, and men of the London companies of the Volunteer Medical Staff Corps, on Saturday evening, May 18th, gave a dinner at the Holborn Restaurant to welcome home the members of the corps who have returned from active service in South Africa. Among those present were: Colonel Squire, Surgeon-Major V. Matthews, and Captain L. Way, R.A.M.C., the adjutant; Surgeon-Captains H. W. Dodd, Harper, Gage Brown, Sharpe, Miles, and Warwick; Surgeon-Lieutenants Waggett, Turner, and Collier; Captain and Quartermaster Bennett; Lieutenants and Quartermasters Purcell and Heckstall Smith, and about 200 non-commissioned officers and men. Among the guests were Colonel Sir Thomas Gallwey, K.C.M.G., C.B., R A.M.C, principal medical officer of the Home District, Colonel Monier Williams, principal medical officer of the New South Wales force, Major Wilson, R.A.M.C., Captain Ward, R.A.M.C., Major Stonham of the Imperial Yeomanry Field Hospital, Surgeon-Captain T. H. Openshaw, Civil Surgeon Green, Mr. Oliver Williams, Lieutenant Collins, Civil Surgeon A. Evans, and Surgeon-Lieutenant Granville, civil surgeon, R A.M.C Most of the men who have returned from South Africa were present. Colonel Squire proposed the toast, "Our comrades who are or have been on active service in South Africa," and mentioned that in the 16 years of its existence the Volunteer Medical Staff Corps had already on three occasions offered volunteers for active service. In the Soudan campaign of 1885 a large number of members offered themselves, but he himself was the only one accepted. In the Soudan campaign of 1898 the corps offered a bearer company, and when in the summer 1899 war with the Transvaal seemed inevitable, a similar offer was made. To this the usual answer was received, that it was not contemplated to make any use of volunteers; but up to the present time over 80 officers, non-commissioned officers, and men had gone to South Africa. This formed over one-fifth of the strength of the London companies and about 30 were still serving, and to them he wished a speedy and safe return. Three would never return. Of these, one, Private Williams, went out in the Imperial Yeomanry and was killed in action near Kroonstad, and Private Walker and Private Stevens met with an equally honourable death from disease. It was hoped to record their devotion to the country by some fitting memorial. To those who had returned he offered a hearty welcome after the hardships which they had undergone. They had done all that was expected of them and more and the corps was proud of them. Surgeon-Captain Openshaw, replied, and expressed his sense of the good work which the men had done Major Matthews proposed the toast of "The Visitors" and Colonel Sir Thomas Gallwey, who was principal medical officer of Buller's force in Natal, replied, and spoke very highly of the work done by the Volunteer Medical Staff Corps in all the different forces in which they had served. Major Stonham urged that the field hospital and the bearer company should always be under the same command Colonel Monier Williams had nothing but praise for the way in which the medical arrangements had been carried out under very severe circumstances. He mentioned that there were many medical men and medical students serving as combatants, and that he had had to obtain permission to call upon some of them to undertake medical duties, in which they had proved very successful.

THE WAR IN SOUTH AFRICA.

We are mainly indebted to Lord Kitchener's laconic and business-like telegrams for all we know about the progress of military operations in South Africa. Although it cannot be said that any large or striking success is recorded as having been achieved in any particular telegram—the enemy being too wily and adroit to give the chance of it by making a stand in any force—Boer losses are steadily going on and the amount of them in the aggregate when several telegrams are taken into account is very considerable. The Boer losses in food, forage, ammunition, horses, and stock cannot, it is certain, go on for ever, however long and disappointing this method of reaching the end may be. There is no doubt that both sides—British and

Boers—are heartily sick of the war: the former in making fatiguing marches in pursuit of an enemy they fail to catch and the latter in making efforts to escape and in frequent trekking. In the sick returns enteric fever still occupies a prominent place. Plague happily seems to be making no serious progress. We lately called attention to the introduction and successful working of a field-force-canteen system in the army of South Africa. We may call our readers' attention to a very interesting communication published in the *Spectator* of May 18th from Mr. J. W. Fortescue under the head of "Coöperation for the Army." This communication and the editorial note thereon are well worthy of being read at the present time when so much is being said and written about army reform

THE CARE OF THE WOUNDED IN NAVAL WARFARE.

In an article occupying two-thirds of the *Archives de Médecine Navale* for March Dr. Léo reviews the important question of the removal and accommodation of wounded men in naval warfare. "One may say without exaggeration," says Dr. Léo, "that as regards regulation and installation the arrangements for succouring the wounded during combats at sea have not advanced a single step for the last 30 years." Dr. Léo supports his accusation with exhaustive references to official publications and documents, as well as by quotations from several authoritative writers whose descriptions of the existing arrangements for the wounded in particular instances could not be more condemnatory. The problem to be solved is a complex one, bristling with difficulties in every direction. Unless the necessary space is provided in the original plans when the framework of a vessel is under construction it is hopeless to expect that on completion she will possess adequate medical and surgical accommodation. The reservation *ab initio* of sufficient room for hospital wards and annexes and of sufficiently spacious avenues leading down to them is absolutely essential, but, as Dr. Léo observes, it is of equal importance that the installations which have obtained sanction should not be modified subsequently out of all recognition during the armament and equipment of the vessel. In practice, unfortunately, this is what usually takes place with the most disastrous consequences.

THE HEALTH OF WEST AFRICA.

A letter from Mr. Chamberlain, the Colonial Secretary, was read by the President of the African Trade Section of the Liverpool Chamber of Commerce at their annual meeting which deserves to be recorded in connexion with the efforts which are being made by the Chamber, in conjunction with the Liverpool School of Tropical Medicine, to check the ravages of malaria on the West Coast of Africa. Mr. Chamberlain expressed his gratification at having learned that, by the generosity of a Glasgow citizen, the Liverpool School of Tropical Medicine had been able to arrange that Major Ronald Ross should proceed to West Africa. He understood that Major Ross proposed to select for the experiment of trying whether the extermination of the anopheles mosquito can be effected a town either in Sierra Leone or on the Gold Coast, and the governors of those colonies had been requested to afford him all the assistance in their power. The Colonial Secretary further stated that he had suggested to the Secretary of State for War that the officers of the Royal Army Medical Corps in Sierra Leone would probably be able to give material help if the experiment should be made in Freetown. The President mentioned that the Glasgow citizen referred to in Mr. Chamberlain's letter, who desired to remain anonymous, had given a donation of £1000.

THE SYRACUSA CONVALESCENT HOME, TORQUAY, FOR WOUNDED AND INVALIDED SOLDIERS AND SAILORS.

The half-yearly meeting of the subscribers of this home was held on May 6th under the presidency of Colonel Stovell. Mr. J. Quick reported that during the past six months 66 fresh cases had been admitted, principally patients recovering from enteric fever, only eight being convalescent from wounds. 192 cases have been admitted since the opening of the institution, and the general conduct of the men had been very good. The expenditure for the half-year amounted to £475, and there was a favourable balance. Colonel Stovell stated that the difficulties with which the committee have had to contend relative to the treating of the men to drink have been overcome by the adoption of a new rule prohibiting the patients entering public-houses. Any infringement of this rule renders the men liable to instant dismissal. Surgeon-General G. J. H. Evatt of Devonport had agreed with the committee that the rule was essential.

DEATHS IN THE SERVICES.

Deputy Inspector-General Daniel Finucane, R.N., on May 15th, at Southsea, aged 72 years. He entered the Navy in 1851, and retired with the rank of Deputy Inspector-General of Hospitals and Fleets in 1883.

Brigade Surgeon William Beale Wallis, A.M.D., retired, at Colchester, on May 6th, aged 71 years. He joined the Army in 1853, became Surgeon in 1862, Surgeon-Major in 1873, and retired eight years later.

Deputy Surgeon-General William Johnstone Fyffe, A.M.D., retired, at his residence at Clifton, near Bristol, on May 17th, aged 75 years. He entered the Army as Surgeon in 1847, and retired in 1871.

Captain H. A. L. Howell, R.A.M.C., is the recipient of the Parkes Memorial Prize and the bronze medal for the best essay on military hygiene

Correspondence.

"Audi alteram partem."

"LOCAL v. GENERAL ANÆSTHESIA IN CERTAIN CASES OF ABDOMINAL SURGERY."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of May 11th, p. 1322, Mr. T. H. Morse makes the, to my mind, somewhat extraordinary statement that "the causes of shock are especially twofold—viz., the anæsthetic and the extent of injury to the nerve structures produced by the operation." With regard, first of all, to the extent of the nerve injury produced by the surgeon as a shock-determining factor, I should have thought that the nature of this injury and the seat of it were of far greater import in determining the amount of shock than the extent of it. Compare, for example, the amount of shock that usually accompanies an amputation through the shoulder-joint for, say, a sarcoma of the head of the humerus, with that which may be expected to result from the operation of nephrectomy for a similar growth of the kidney. In the first case the injury to the great nerve trunks of the brachial plexus is infinitely greater in extent than is the nerve injury in the second case; yet it is well known to both surgeons and anæsthetists that there is hardly any major operation that is attended with so much danger to life from shock as is that for the removal of a diseased kidney.

With regard to the effect of the anæsthetic *per se* as being one of the "especial twofold factors" in the production of shock I can only say that in my experience—and I believe my opinion would be supported by the majority of anæsthetists—such a statement cannot be said to rest upon facts of clinical observation I am unable to ante-date my memory to the pre-anæsthetic days, but the experience gained by administering various general anæsthetics to many hundreds of patients entitles me to express my conviction that in the large majority of cases the effect of the anæsthetic is undoubtedly to diminish rather than to increase the shock which is necessarily attendant upon all surgical operations of any degree of magnitude. I have on many occasions started to administer a general anæsthetic (gas and ether, chloroform, or a mixture of chloroform and ether) to a patient with a feeble, irregular, and frequent pulse, and have found that after complete anæsthesia has been produced for a short time the pulse becomes stronger, more regular, and less frequent and that this improved condition of the circulation has been maintained throughout the operation.

The cases referred to by Mr. Morse as being those in which a general anæsthetic is especially contra-indicated are cases of "acute peritonitis, internal hæmorrhage, and intestinal obstruction," and in support of this contention he records the notes of five cases that he has operated upon under local anæsthesia. In four out of the five cases he says "the operation was followed by no shock," or "no shock was caused"; and yet in one of these (Case 2) the hand was introduced into the abdomen "for the purpose of removing blood-clots, of which the whole cavity was full." A proceeding entailing such manual manipulation of all the abdominal organs as this would necessitate could hardly, one would think, be accomplished by the surgeon without *some* shock resulting, though if he were particularly dexterous this might be reduced to the least degree. It would be interesting to know what Mr. Morse exactly understands by "shock" and the symptoms he relies upon for gauging its intensity.

In contrast to these five cases operated on under local anæsthesia Mr. Morse records the case of a woman, aged 42 years (Case 6), to whom ether was administered for the relief of incomplete intestinal obstruction, in whom the stomach contained "fæcal matter" at the time of the operation. This patient died from suffocation caused by sucking vomited matter into her lungs whilst under the anæsthetic. Of such cases Mr. Morse truly says. "When ether or chloroform are given it is very likely that while the patient is unconscious some of the fæcal matter will be regurgitated from the stomach and sucked into the air-passages," and on this account principally, he says, "all of these are cases for operation with a local anæsthetic."

I would like to point out to Mr. Morse a very obvious and simple proceeding which entirely removes this danger. It is a precautionary measure that I have adopted for several years past and that is doubtless also frequently practised by other anæsthetists in certain cases of intestinal obstruction requiring an anæsthetic for an operation. It is to pass an ordinary flexible stomach-tube into the stomach before commencing the anæsthetic and so withdraw the contents, and, if necessary, wash out the stomach as well. If on account of the patient resenting it there is difficulty in doing this it can be safely done as soon as he is under the anæsthetic and before the operation is commenced. Only during the past week I was called upon to administer a general anæsthetic—chloroform I selected—to a woman in almost identically the same condition as the patient above referred to by Mr. Morse, and had I not resorted to the precaution I have above mentioned (which in this case resulted in the removal of about a pint of fluid from the stomach) the patient would have been exposed in a similar way to the risk of being drowned in her own vomit. As it was, she took the anæsthetic without causing the slightest alarm to either the surgeon or myself.

The introduction of reliable and safe local anæsthetics is undoubtedly a great boon to the operating surgeon, though whether it is more advisable to use one of these than one of the well-recognised general anæsthetics in the class of cases Mr. Morse specifies it is not my object in this letter to discuss. I will only say that I cannot recall a single case of this nature where I have thought that the shock of the operation has been materially increased by the administration of a general anæsthetic, when this has been given by a skilled expert; nor have I so far, for reasons of safety, had to refuse to administer a general anæsthetic to such a case when the surgeon has considered it in the interests of his patient to perform an abdominal section.

I am, Sirs, yours faithfully,

Norwich, May 13th, 1901. SYDNEY H LONG.

"LEGISLATION AGAINST NATIONAL INTEMPERANCE."

To the Editors of THE LANCET.

SIRS,—In his letter in THE LANCET of May 11th, p. 1365, Dr. Archdall Reid expresses some surprise that I should have failed to grasp his meaning on this important question of alcohol and heredity[1] I think that I may well be forgiven the apparent dulness of my perception centre when one considers that Dr. Reid takes up a position diametrically opposed to all temperance reformers, and further, that he takes his stand on premisses which, when fully examined into, he himself acknowledges to be untenable. What are these? In his earlier writings he started with the contention, "that the craving for alcohol, like sexual love, is an instinct not an acquired habit." And upon this he has built his own peculiar logical system. By-and-bye he came to recognise that his foundation was unsound and he altered it, but notwithstanding this change of foundation his structure remains the same. Dr. Reid found out that he must broaden his foundation, or rather that he must have two foundations. He calls these "factors" and he employs the terms "inborn capacity" and "acquired factor." To give his own words (1) "This capacity for enjoying alcohol is comparable to the inborn capacity for enjoying sugar or salt, or tobacco, or sexual indulgence, or so forth; (2) the second necessary factor in an inebriate's crave, the acquired factor, is the memory of the delights conferred by former acts of drinking."[2] The second factor I pass over because we are all more or less agreed as to its truth. It is his first factor which I debate and a little reflection will convince most people of its fallacy and yet it is upon this false foundation that Dr. Reid builds his house Let one only think of the comparison of an inborn capacity for enjoying sexual indulgence, sugar, and salt, with that of alcohol and tobacco. Why not add opium and arsenic? The various points compared are not parallel. Sexual indulgence, along with the tastes for sugar and salt, are essentials, tobacco and alcohol are not essentials. Sexual indulgence is necessary for the propagation of the race, sugar and salt are essentials of our life, but tobacco and alcohol are not essentials and the taste for them is entirely an acquired habit. An infant takes to sugar and salt as it takes to its mother's milk, but I never yet heard of an infant taking to tobacco or alcohol. Dr. Reid has apparently been a better boy than some of us. I am certain that he never smoked his father's black pipe, for if he did he would never have written about the inborn capacity for enjoying tobacco

So much for the theoretical part of Dr. Reid's views. His views as to its application appear to my mind quite as fallacious. "We must either permit alcoholic selection to run its level course or we must assist it by artificial selection and so prevent much of the misery by weeding out the obviously unfit either by forbidding marriage to drunken individuals or in the married by preventing the procreation of children by separating the parents or such other means as science may devise."

As a practical Christian people *we dare not allow alcoholic* selection to run its level course. If we did it would mean that in our religious and in *our social systems* there was such a deep moral blot as would bring about the destruction of our race. The advice is cold and callous and we cannot follow it, for as a people we believe that by encouragement and by making it easy to do right and difficult to do wrong we can wean men and women from evil courses of life of all kinds. We may advise against, but we cannot forbid, marriage in adults. That would mean an encroachment on the liberty of the subject which no Anglo-Saxon will tolerate. As to preventing the procreation of children by separating the parents it is pleasing to say that this is the only portion of Dr. Reid's scheme which bears scrutiny. Where both parents are drunken this may be advisable and something of this kind may be accomplished in the future. As to the other means which science may devise for preventing the procreation of children, one knows of no other means unless it be the French scheme which is as disgusting a subject as human beings can deal with and, as Sir Douglas Maclagan said, people who practised it had lost all sense of self-respect. Dr. Reid has modified his theory once and hence there is hope for him. Let us trust that he will live entirely to change his views, theoretical and practical. I am presently engaged in studying the subject of the distribution of alcoholic beverages among various peoples and hope shortly to publish my results when I shall give precise references to authorities.

I am, Sirs, yours faithfully,

Leeds, May 14th, 1901. GORDON SHARP.

To the Editors of THE LANCET.

SIRS,—The correspondence on the temperance question is one of absorbing interest to medical men. The lay public naturally look to our profession for guidance in this matter and it therefore behoves us to be very sure of our ground before we give our approval to any scheme of temperance reform. A commendable effort is now being made to get to the root of the matter and apparently there are two schools of thought giving publicity to their views in your columns. The one, ably represented by Dr. T. S. Clouston, holds that we must look for success to some form of prohibitive legislation; the other, of which Dr. Archdall Reid is the exponent, asserts that all prohibitive temperance legislation has failed in the past and is assuredly foredoomed to failure in the future for the reason that the alcoholic diathesis is hereditary.

---

[1] THE LANCET, April 27th, 1901, p. 1233

[2] Brit. Med. Jour., Sept. 16th, 1899

As stated by Dr. Walter Kidd the controversy really hinges on the question as to whether acquired characters can or cannot be transmitted. Assertions that they can be have been made and denied, what we must have, however, is proof; man, in the course of his life history, acquires thousands and thousands of characteristics, is there any proof that he has ever transmitted one of these acquirements to his offspring? Obviously the onus of proof lies with those who make the assertion; it is, of course, impossible for those who dispute it to prove a universal negative. It seems to me that if the transmission of acquired characters can be proved (and in the wide range of the whole animal kingdom, if such a transmission exists, surely there must be thousands of examples) then Dr. Reid's theory falls to the ground. If, on the other hand, no proof can be adduced, then we, as scientific men, must be very chary of supporting any scheme of reform which ignores a fundamental principle in the causation of drunkenness.

May I add, and I am open to correction, that it appears that some of your correspondents rather confuse Dr. Reid's views with those of Weissmann and other biologists; but if I am right Dr. Reid has repudiated Weissmannism properly so-called, and only follows him so far as to agree that acquired characters are not transmissible. Then, again, after Dr. Reid's destructive criticism[3] of Dr. Berry Haycraft's Milroy Lectures it is hardly correct to assume, as has been done by Dr. Walter Kidd, that the views of these two gentlemen are identical. Trusting you will allow the importance of temperance reform and the hope that this discussion may lead to its being based on sound scientific principles, to be my excuse for troubling you with this letter,

I am, Sirs, yours faithfully,

Portsmouth, May 14th, 1901. A. Mearns Fraser.

To the Editors of The Lancet.

Sirs,—Dr. Laing Gordon in his letter in The Lancet of May 18th, p. 1427, has somewhat obscured the issue raised in my letter of May 11th, p. 1365. It is not the manner in which inborn characters are transmitted, nor the view held by Dr. Archdall Reid of Weissmannism as a great body of doctrine, which is material, but the fact that an integral part of that system is adjudged by high authorities to be "not proven." It is the assertion that only inborn characters are transmitted [illegible] nged and this is vital to D [illegible]

Blackheath, May 20th, 1901. Walter Kidd.

MOTOR-CARS FOR MEDICAL MEN.

To the Editors of The Lancet.

Sirs,—Being one of the first medical men in England to adopt the automobile as a means of locomotion and being written to frequently for my opinion and experience of this means of getting about it has struck me that a few words of advice might help those medical men who contemplate changing the horse for the motor. The principal points for intended purchasers to keep in view are: First, every maker will assure you that his car is the best on the market and never breaks down; and, secondly, any maker of repute will give a trial run. Before buying try several makes and compare experiences, but do not decide unless you have had at least 25 miles' run, as many of the smaller cars seem excellent when only tried over a few miles of good road, but in spite of what the makers say to the contrary they often fail on a steep hill.

The three types of car on the market are electric, steam, and petrol.

1. Electric may be the cars of the future, but in their present state they are not suitable for medical men. The cost of the up-keep is immense owing to the short life of the accumulators, the distance run on one charge is too short for an average medical man's round, and they take a long time re charging.

2. The steam-car. The best known at present is the "Locomobile"; it is a neat-looking machine [illegible] but for a medical man it i [illegible] makers may say: (1) it is too light and must have pneumatic tyres, and the liability to puncture is a fatal obstacle, as the medical man cannot choose his road, and a puncture when on an urgent call would be just as likely to happen as at any other time; (2) it takes too long to get up steam; and (3) it uses so much petrol that it is more than four times as expensive per mile as the Benz, Mors, or Daimler. The constant anxiety of watching the water-gauge lest the water in the boiler gets too low and a tube burn out is a nuisance to a medical man; then the water-tank only holds enough for about from 12 to 15 miles. It would do for short distances on good roads, but not for the rough use of medical work.

3. Benz, Mors, and Daimler cars are driven by explosions of petrol mixed with air; in the Benz and Mors ignition is by electric spark only—in the Daimler by electric or lamp. The Benz and Mors are belt-driven and in wet weather the belts are liable to slip Several of my friends have tried the Benz, but have given them up for other makes. They are light and, judging from my friends' experiences, this has been an advantage, as they have had to push. In addition to the belt trouble with Mors cars they are fitted with pneumatic tyres, and if these are replaced by solid tyres the jolting on the ordinary road breaks the spokes. They are much too complicated for anyone but an engineer or someone with a love of engineering to take as a substitute for horses.

The Daimler is, to my mind, the best car on the market at present. The principle of the engine has proved most successful, and is that of the Panhard in France and Canstatt Daimler in Germany. I have driven my present car for about a year and a half and have never once failed to keep an appointment nor have I ever had to be towed home, though I have towed home Benz cars, Mors, and Locomobiles belonging to friends and acquaintances After a year and four months' running I drove to Coventry from Windsor to have the car overhauled and varnished. It did the journey without having to stop except once to fill the petrol tank from my extra supply can When tested at the works the engine gave five and three-quarter B.H.P., and this at the end of over a year's wear during which it had run about 6000 miles. My present car cost about £450 and is a mail phaeton with moveable hood and is the type of car I would advise those who can afford to pay so much for a machine to buy.

I believe that the car most likely to suit medical men will be a car of which I saw drawings, &c., at Coventry. It will, I am informed, cost little over £250 and drive by means of a live axle. The amount of repairs required on my car for one year and three months' wear did not amount to £10. I have since had a new water-tank and top speed gear wheel. I have spent a certain amount on improvements such as wheel-steering and compression plates on pistons to increase horse-power, but these things were not necessities and are fitted to all new cars now.

My advice is, Get a good car from a good maker, leave experimental cars to men who have time to make experiments, and when you have a car take a personal interest in it. I might mention that my experience has been of nearly three years' duration and I have had much less worry than when I drove horses.—I am, Sirs, yours faithfully,

Windsor, May 20th, 1901. H. E. Bruce Porter.

To the Editors of The Lancet.

Sirs,—In the discussion now going on in your columns *re* motor-cars perhaps my experience may be of interest. I have had a motor now nearly 12 months. I had difficulties and mishaps at first, but these were chiefly due to want of knowledge regarding the working of the machinery, and any man must expect this until he gets to thoroughly understand his car. My car now, after a year's running, is going better than ever it did; I now have very little difficulty and can rely upon it. It was made by the Yorkshire Motor Car Company of Hipperholme. It is a petrol car with tube ignition and has a double-cylinder engine. Hence it vibrates less and makes less noise than most petrol cars. It will mount any hill which a horse and trap can mount. The tyres are pneumatics. I have so far had only three punctures and the tyres, although I have ridden over the roughest roads, are now, after nearly 12 months' wear, practically as good as new. Steam cars have some advantages over petrol cars, but they have also a number of disadvantages, and until they are much more perfect I think a petrol car is to be preferred, and if I were going to buy another petrol car I should select one similar to that which I now possess. I may add that I used this car in practice with success before I removed here to take up the duties as medical officer of health of Halifax.

---

[3] Practitioner, August, 1900.

I am, Sirs, yours faithfully,
JAMES T. NEECH.
Halifax, May 20th, 1901.

"THE MEDICAL PROFESSION AND THE FRIENDLY SOCIETIES."

To the Editors of THE LANCET.

SIRS,—No attempt seems to have been made so far in this correspondence to settle what may be considered fair remuneration for club work. Both Mr. Brabrook and "A Colliery Surgeon"—the former in THE LANCET of April 27th, p 1232, and the latter in THE LANCET of May 11th, p. 1366—ask the question, the former rightly leaving the answer to the profession, the latter declaring himself satisfied with a payment of about *4s.* per annum. I believe few men think that club practice pays. The beginner takes it *faute de mieux* and keeps it, either because the better does not come or because the resignation of his clubs would throw them into the hands of a rival practitioner or serve to introduce an opponent. Club work is "slumped" with private work, and this "slumping" is, I contend, the main reason why the inquiry whether the former is really remunerative has not been pressed. Everybody admits that it should pay, and Mr. Brabrook places it in this respect between the attendance on the very poor and the comparatively rich.

This question of what is a proper club payment can very obviously be approached from two directions. 1. Let us imagine a medical practitioner who does club work only all his life, never having or hoping to have a single private patient. What sum should he receive? What are his wants? He must have a house, servants, and all the apparatus of medical practice. He should be able to live in fairly easy circumstances. Financially, he should be at liberty to marry and it should not be accounted a misfortune if he has two or three children. It is not too much to ask that he should be able to bring up one son to his own profession and to educate his other children in a corresponding manner. He must have occasional holidays and neither he nor his family is exempt from illness and its attendant expenses. Inasmuch as the clubs will not pension him when he is too old or too infirm to work longer for them he should be able to put away something every year for his old age. I do not think this can be done on less than £800 a year. Now £800 a year means at the ordinary rate a club *clientèle* of 4000—a number which seems unmanageable by one man. Perhaps someone with large experience of club work will tell us how many members a medical man could attend giving all his time and doing his work well. If the sum mentioned above be accepted a simple division will show what each club member should pay a year. 2. What sum does a club medical officer actually receive for each attendance? Will "A Colliery Surgeon" and others in club practice take the trouble to divide the year's club receipts by the year's attendances (presuming they are all entered) and tell us what the quotient is? I remember hearing of one provident institution in London where this sum worked out to 2½*d.*

My own feeling is that *4s.* a year is a ridiculously inadequate payment, and I would suggest that it should be made into a retaining fee in consideration of which the medical man should attend club patients for very small payments to be made out of a special medical fund raised by separate contribution from all the members. The surplus of this fund might be divided at the end of each year as is done with the funds of slate clubs. Of course, this is a vain suggestion as long as medical men profess themselves satisfied with the ordinary terms.

I am, Sirs, yours faithfully,
C. SCOTT WATSON.
Wonersh, May 13th, 1901.

"HÆMORRHAGIC TYPHOID FEVER."

To the Editors of THE LANCET.

SIRS,—In a note on hæmorrhagic typhoid fever in THE LANCET of April 20th, p. 1156, you call attention and attach importance to the history of alcoholism in the two cases of that rare affection referred to, and express an opinion as to the probability of this factor acting as a contributory cause. From this view there can be no radical dissent, but in view of the infrequency with which the hæmorrhagic diathesis is manifested in the course of typhoid fever, even in alcoholic subjects, this influence, it seems to me, must be of most subordinate significance. It appears far more likely that the widespread and profuse hæmorrhages are to be attributed to changes in the blood or vessels, or both, induced by the infective or toxic activity, or both, of the typhoid bacilli, or as a less likely possibility by some secondary infection or intoxication. The two cases in question were reported from the Philadelphia (City) Hospital where a history of alcoholic excess is the rule and that of venereal infection is common, but even here cases similar in character to those reported are, as elsewhere, most exceptional.

I am, Sirs, yours faithfully,
AUGUSTUS A. ESHNER.
Philadelphia, May 4th, 1901.

"COINCIDENT TYPHOID AND MALARIAL INFECTION."

To the Editors of THE LANCET.

SIRS,—In a leading article in THE LANCET of May 18th, p. 1412, on this subject you comment on the term "typho-malarial" in connexion with some recent observations by Dr. J. P. Lyon of Buffalo, and if you will allow me I would like to draw attention to some observations of my own as summed up in the Alexander Prize Essay for 1881—Enteric Fever as Illustrated by Army Data at Home and Abroad. The composite word was coined by Dr. Woodward during the civil war in America to meet cases where "the attack was of a mixed character from the entrance simultaneously of both exciting agencies in the system" and by the date mentioned the name had crept into the army medical returns, but the curious feature observable was that while from the typically malarial countries no clear recognition of this hybrid disease was discernible in the statistics it figured decidedly in the returns from other stations where malarial fever was not common and where the remark appended was not uncommon that the cases of paroxysmal fever had "originated elsewhere." After pointing out that the difference in causation between the paroxysmal fevers and enteric fever was deducible even from the statistics I noted that "the onset of febrile disturbance in the tropics may simulate ague," and that "ague and enteric fever may be often combined in the sense that enteric fever may occur in a malaria-impregnated person," and this latter virus by being roused into activity may modify the febrile disturbance and other symptoms, and came to the opinion that while one or two cases recorded by Dr. Massy from Newera Ellia in Ceylon seemed to support the view of a simultaneous entry of the two agencies in the system at the same time, yet that the majority of the asserted hybrid cases—based on clinical data and especially temperature variations to be found at the onset, mid-period, and decline of the fever—could be explained by the results of the old malarial taint or by deviations from the supposed typical temperature chart common in enteric fever in aliens in tropical countries and also observable in the same disease at home irrespective of malarial taint. The inference I drew was much the same as that contained in the summary at the end of your article, that the term "typho-malarial" to express a distinct disease was untenable, and subsequent experience has but confirmed the conclusion that if this asserted hybrid is to be recognised in nomenclature at all its proper status is as a variety of enteric fever dependent on the prior existence of the malarial parasite in the body.

I am, Sirs, yours faithfully,
FRANCIS H. WELCH, F R.C.S. ENG.,
Surgeon-Colonel (retired) Medical Staff
Brandram road, Lee, S.E., May 20th, 1901.

PROTRACTED GESTATION.

To the Editors of THE LANCET.

SIRS,—This morning, with some difficulty, I delivered a primipara of a male child (weight, 9 pounds 10 ounces), in every respect well developed. The last day of the mother's last period was July 2nd, 1900—that is, 320 days from the birth of the child this morning. I have made every and all possible inquiries respecting the aforesaid dates and can thus absolutely confirm them. The monthly nurse was engaged from

April 1st I think that this should be recorded, and thus beg you to do so

I am, Sirs, yours truly,
G H HAMES, F.R C S Eng

Hertford street, Mayfair, W, May 18th, 1901.

"THE CASE OF AN ELECTION."

To the Editors of THE LANCET

SIRS,—I am much astonished that no reply has been forthcoming from the authorities of the Samaritan Hospital to Dr Shaw Mackenzie's letter in THE LANCET of April 6th, p 1044 The case is even stronger than Dr Shaw-Mackenzie puts it I find that Dr Shaw Mackenzie's name appears in the list of the staff of the Samaritan Hospital in Churchill's Medical Directory for 1901 I have made inquiry into the matter and I have satisfied myself that the list came to Messrs Churchill from the hospital in the usual way It seems an extraordinary state of things that a man can be elected to a post and then removed from his duties without a word of explanation or regret No "legal opinion" can possibly justify such treatment

I am, Sirs, yours faithfully,
JAMES B BALL

Upper Wimpole-street W, May 21st, 1901

THE RECENT MEETING OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON

A CORRECTION

To the Editors of THE LANCET

SIRS —I desire to point out that in your report of the meeting of the Comitia of the Royal College of Physicians of London in THE LANCET of May 18th, p 1410 the name of Dr James Taylor has been wrongly mentioned as the seconder of Dr Norman Moore's motion instead of my own As a member of the Committee of Management I seconded the adoption of their report

I am, Sirs, yours faithfully,
FREDERICK TAYLOR

May 20th 1901

"ROYAL ORTHOPÆDIC HOSPITAL"

To the Editors of THE LANCET.

SIRS,—Mr Marks has not answered the letters of the senior house surgeon of the Royal Orthopædic Hospital and of myself—in THE LANCET of April 13th, p 1106, and March 9th, p 739 respectively—setting forth reasons against the sale of the site He assumed the reins of power in that institution by means of votes created for the purpose of defeating the scheme of purchase of the former committee He holds power by the same following of votes Under these circumstances he refuses to give reasons for suddenly changing his views and insisting upon the sale of the hospital The objections to the sale of this valuable freehold, almost the only asset of the hospital, remain unchanged We who have resisted the proposal to sell have increased the sums offered from £28 000 to over £37 000 But we do not wish to sell and believe that removal to a leasehold in an out-of the way quarter would be disastrous to the financial and social future of this old established institution Why should Mr Marks maintain an obstinate silence on a matter of vital importance to a public charity? Why should he write a private letter to the Editors of THE LANCET in answer to the comments contained in the article of April 6th last, p 1025? What has he to say to the editors of a medical journal that he cannot say to its readers? I inclose my card

I am, Sirs your faithfully,
A GOVERNOR OF THE HOSPITAL

May 19th, 1901

A DETAIL IN THE COSTUME OF MAYORS

To the Editors of THE LANCET

SIRS —May I ask if any of your readers can inform me if the mayors of Oxford and Cambridge, should they happen to be members of the university wear their academical hood over the official robe Is it usual or correct for provincial mayors w o are also doctors of medicine to wear their hoods over their mayor's robes on official occasions?

I am, Sirs, your faithfully,
HISTORICUS

May 20th, 1901

DOMESTIC DRAINAGE IN PARIS

A HOUSEHOLDERS' SYNDICATE TO RESIST SANITARY REFORM

(FROM OUR SPECIAL CORRESPONDENT)

DOMESTIC sanitation is making but slow progress in Paris The sanitary authorities hoped, and thought, that the drainage of the great majority of Paris houses would be terminated by the time that the Universal Exhibition opened its doors in 1900 They did not count, however, on the tenacity, ingenuity, and avarice of the owners of house property The reforms projected, it is true, were not of a nature to injure the interests of householders They represented, on the contrary, what was and has been proved to be in the best interests of property owners, but they entailed a preliminary outlay, and the certainty of an immediate loss, however great might be the prospective gain, has proved a serious obstacle Originally the sewers of Paris were not intended to receive domestic drainage They had their outfalls into the Seine, and the river is too small and too far inland to receive the drainage of the houses Slop water was allowed to flow into the sewers, but the closets all drained into cesspools or into portable tubs or pails In the course of time, however, and after endeavours extending over many years, the town has acquired sufficient land at Gennevilliers, Achères, Triel, and Méry to receive the whole sewage of Paris, some 180 000 000 cubic metres per annum and throw it on to the soil Being thus utilised for agriculture and purified there was no longer any objection to draining the closets into the sewers for the crude sewage was henceforth not allowed to flow into the river The completion of these works was inaugurated on July 8th, 1899 and they have already been described in THE LANCET [1] Simultaneously with this great work for the disposal of the sewage more sewers were built in the town and many of the old sewers were repaired or relaid Then pressure was brought to bear upon householders so that they should substitute for their cesspools or their pails properly flushed water-closets draining direct into the sewers By the end of the year 1890 there were only 1835 houses in Paris which were thus drained and the mortality that year was equal to 24 1 per 1000 of the population In 1893 there were 4298 houses with water-closets and the mortality was 21 7 per 1000 In 1896 there were 9460 houses draining direct into the sewers and the mortality was equal to 19 per 1000 inhabitants for the entire town Of course, there were other causes that contributed to this reduction in the death rate, but, nevertheless, there has been a notable reduction in the death rate accompanying the improvement in domestic drainage

At the present moment there are in all 78 000 houses in Paris and of this number nearly 24 000 houses now possess water closets and drain direct into the sewers For the remaining 54 000 houses there are still in existence 47 913 cesspools, 21,813 *tinettes filtrantes* (metallic pails which while retaining the solid matter allow the liquids to flow to the sewer) and 11 909 wooden tubs or pails which retain both solids and liquids The cesspools are supposed to be emptied once in the year and the pails removed once a week or oftener When the cesspool or the pail systems are employed there is no water in the closets and no syphon traps can be applied A pan can only be cleaned with a brush and by pouring a little water on it from a hand jug If much water is used the proprietors soon find this out and complain to their tenants, for they object to the cost of frequently emptying the cesspool Under these conditions the soil pipe is always foul and there is nothing to prevent the air from the soil-pipe and the cesspool below entering the dwelling rooms of the house With the *tinette* the position is better, a larger quantity of water may be used since it can escape from the *tinette* into the sewer The law of July 10th, 1894, sanctioned the raising of a loan by the town of Paris at 4 per cent interest for the amount of £4 700 000 This was to be devoted to purchasing land sufficient to receive 200 000,000 cubic metres of sewage per annum, allowing for a maximum of 40,000 cubic metres of sewage per hectare per annum Then there was the cost of pumps and of main

---

115, and July 15th, 1899, p. 186.

sewers to carry the sewage to this land, the cost of building new sewers in the town, of repairing old sewers, and the cost of completing and increasing the distribution of the water-supply, so that each house might have water enough to flush the closets and apply the new system of drainage destined to replace the cesspools and the pails. The second article of the law imposed on householders the obligation of draining all new buildings direct into the sewer, and all old buildings were to be altered within the space of three years. The town of Paris was to finish the entire scheme within five years, and the public works were completed, as has been already stated, in July, 1899. It is with the private owners of the houses that the difficulty and delay have arisen. The great majority were quite content to let matters rest as they were. So long as tenants were willing to rent their houses they did not feel disposed to incur the expense of reconstructing the closets and soil-pipes.

There was in existence a society called the Syndicate of Proprietors which was supposed to defend and represent the interests of the proprietors of the houses that are let out in flats, as is the case with nearly all the houses in Paris. But there was not much for this society to do, and most of the proprietors did not give themselves the trouble to join it. Now, however, the syndicate saw its opportunity. Circulars were issued to all the proprietors of houses urging them to join the syndicate, which would provide legal advice, and reminding them that by union they would obtain the force necessary to resist the imposition of new burdens. In a comparatively short time some 9000 proprietors joined the syndicate, and as each member paid a subscription of 20 francs per annum this meant an income of some £7200. With this the syndicate was able to open an office, employ a paid secretary, clerks, and solicitors, and even to issue a periodical which is their official organ. Many individual proprietors who if left to themselves would not have had the courage to resist official pressure felt bold and daring now that they had a powerful syndicate at their backs. The syndicate on its side had to justify its existence by the display of great activity. They therefore organised in a systematic manner a campaign on behalf of the proprietors and against the authorities. Two lines of action were adopted—the legal and the theoretical. Some engineers who did not theoretically approve of the scheme of drainage adopted by the authorities of the town were selected. The syndicate then succeeded in obtaining the necessary funds to appoint a committee of technicians who were sent to Berlin and other towns to report on the drainage of these places with a view to collect material for the condemnation of the Paris scheme. This committee went so far as to pretend that at Berlin the separate system had been adopted. Yet the only ground for such an assertion is that the sewers of Berlin are much smaller than those of Paris; therefore the storm overflows come sooner into action than they would do for the larger sewers of Paris. The sewage farms of Berlin consequently receive a smaller proportion of the storm-waters than the sewage-farms of Paris, but the sewage is not separated, both rain-water and sewage proper going to the sewers. Whatever dissatisfaction existed with the Paris scheme of drainage was thus fostered and encouraged and the controversies that had prevailed for many years before the actual scheme was finally adopted were thus revived and reopened. At the same time the action of the authorities was openly challenged before the courts of law.

A great blunder had been committed of which the Syndicate of Proprietors took due advantage. The law of 1894, sanctioning the sewage scheme, did not give any details as to how the domestic drainage in connexion with the scheme was to be carried out. Therefore this was settled by a decree issued by the Prefect of the Seine on Dec. 24th, 1897. Article 4 of this decree stipulated that proprietors or householders must submit their plans of domestic drainage to the administration, and that such plan should not be carried out unless it was approved and sanctioned. The municipality had established a sanitary laboratory where all closets, flushing tanks, and other sanitary contrivances were tested, and the idea was to prevent the employment of cheap, shoddy, and unsatisfactory appliances. But it was maintained that in taking these prudent and useful measures the Prefect of the Seine had exceeded his legal powers and the Council of State to which appeal was made gave a verdict against the Prefect. It was therefore necessary to withdraw the decrees and the regulations on this question, and issue a new decree simply stating that closets must be sufficiently flushed and the soil-pipe disconnected from the sewer.

Of course, all these efforts of the Syndicate of Proprietors will not prevent the drainage scheme from being carried out in the long run, but they have been successful in delaying its application. In some instances, also, the houses will not be as well drained as if the original regulations of the Prefect of the Seine had been enforced. Inferior apparatus may be employed, because the plans cannot be so strictly controlled by the municipal authorities. The fact, also, that these legal questions were pending provided a sufficient excuse for many proprietors to delay the application of the new system of drainage to their houses. Thus the new drainage scheme was not fully carried out in time for the arrival of the many visitors expected at the Universal Exhibition. Indeed, at the present moment, out of every 102 houses in Paris only 24 drain direct into the sewers. Thus, rather more than three-quarters of the houses of Paris are still in an unsatisfactory and insalubrious condition so far as their system of domestic drainage is concerned.

On the other hand, the fact that nearly a quarter of the houses in Paris are now in a fairly satisfactory condition constitutes a very effective object lesson Though the majority of the inhabitants still live in unwholesome houses, nearly everyone has some friend or acquaintance who lives in a house that is properly drained. Everybody, therefore, has opportunities of comparing the old system with the new; and the advantages of the latter are so obvious that persons who are removing naturally seek out an apartment in a house which is properly drained. Therefore the proprietors who have applied the new system let their apartments with great facility, whereas the apartments that still drain into cesspools or pails are apt to remain tenantless for a considerable time. Thus the force of competition is showing itself as effective as the law in breaking down the resistance of the proprietors. The law is a lame instrument to employ for the following reasons. When it is recognised that the sewer in a street is in a proper condition the proprietors of the houses on either side are notified that they must abolish their cesspools or pails, provide flush tanks to their closets, and drain direct into the sewer. Three years' delay is accorded to carry out this work. At the end of the three years the proprietor may present himself to the authorities with some doleful tale of financial loss or difficulties and appeal for a further delay. But the granting of such delay pledges the proprietor to carry out the alterations when the time has expired. If, on the other hand, it is determined to enforce the law, then a sworn agent must proceed to the house and draw up an indictment (*procès verbal*). Thereupon, the proprietor is summoned before a police-magistrate and fined from one to five francs and 16 francs costs. This is a trifle, but the proprietor is also ordered to carry out the works. If he is determined to resist he refuses to do so. Thereupon a further order is issued authorising the municipality to undertake the work and charge the cost to the proprietor. Here the difficulties begin; for the proprietor will carefully watch every detail of the work done, and if any damage is produced, such as a crack in a wall, through the digging of a trench to place a drain-pipe, then he at once sues the municipality for damage done to his property. Endless litigation results, so that it is not very practical for the municipality to push matters to this extreme. Now, also, that some of the proprietors who were most violent and energetic in resisting the new scheme of drainage are beginning to realise its advantages and are voluntarily coming round and putting their houses into proper order, the municipality is tempted to let matters take their own course.

That a considerable improvement has even now been effected is shown not merely by the figures given of the number of houses draining into the sewers, but also by the fact that it has been possible to abolish the celebrated depôt at Bondy. The cesspools of Paris are emptied by contractors who convert the contents into guano or otherwise utilise them. But they were not able to deal with the whole of the soil and the town had to establish a depôt at Bondy, where for one franc per cubic metre they took what proportion of the contents of the cesspools the contractors were unable to treat. At Bondy a contractor working for the municipality extracted ammonia from this night-soil but he was very embarrassed to know what to do with the liquid residue. Though not bearing on the question at issue, it is worth noting, while alluding to the Bondy depôt, that a very interesting experiment was made with this liquid. M. Masson, director of the municipal sanitary department, suggested that a sandy field close at hand should be utilised. Collecting drain-pipes were sunk in this field to a depth of three or four feet and the liquid residue of the contents of the cesspools, from which the ammonia had been extracted, was thrown on to this field. The water collected by the drain pipes below came out looking, if anything, blacker and more foul than before. The contractor was for giving up the experiment, but just at that time M. Bechmann, chief engineer of the town of Paris, delivered a lecture describing experiments made in England on the bacteriological treatment of sewage. M. Masson was so impressed that he insisted on continuing the trial at Bondy. In time the sand in the field got so clogged with slime and bacterial organisms that it finally acted as a filter and the liquid, which at first came out quite black, was now clear and appeared to have been purified. But with the gradual abolition of cesspools in Paris due to the ever-increasing number of houses draining directly into the sewers the contractors found that they no longer had any need to apply to the municipality to help them to get rid of a portion of the night soil. Thus the enterprise at Bondy has come to a natural end and one great centre of pollution and of foulness has thus happily disappeared.

In THE LANCET of August 13th, 1892, p. 396, there was published a special article on the cholera epidemic then prevailing in Paris, with a map of the neighbourhoods in which the depôts of night soil and the manufactories of human guano were indicated. From this map it will be seen how Paris is surrounded by these depôts of filth and their accompanying unwholesome industries. This will help to show how great will be the benefit when all the cesspools are abolished and there is no longer any need for such accumulations of night-soil in the suburbs of the town. That this end should have been delayed so long is due, as explained, to an organised resistance which does not say much for the intelligence of the proprietors of the houses of Paris. Indeed, their resistance was most short-sighted. They strove to avoid the cost of putting water-closets in their houses by arguing that the separate system of drainage was the best. Undoubtedly there is much to be said in favour of the separate system, but that would not alter their position so far as domestic drainage is concerned. Whether a soil-pipe from a house leads to a sewer which only receives sewage proper or to a sewer which also receives the rain-water does not in any way alter the method of constructing and flushing the closets or of disconnecting and of ventilating the soil-pipe. But the proprietors do not seem to have really studied the question; they were content to clutch at any pretext for avoiding, or at least for postponing, the necessity of incurring some extra expense. M. le Propriétaire is not a very popular individual in the social life of Paris. While ever ready to raise the rent he shows less alacrity in carrying out any necessary repairs; and now that these proprietors, to the number of some 900, have united to resist and defer the carrying out of a law that was undoubtedly enacted for the public good they have justly brought down upon themselves more than their usual and not inconsiderable share of public opprobrium. That the abolition of pails, *tinettes*, and cesspools, and the construction of proper water closets in all the houses of Paris, will very materially help to reduce the death rate has been demonstrated over and over again by the experience of many towns. Those who resist such reforms assume a very heavy responsibility, for they may be accountable for the loss of many human lives.

Paris, May 20th.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

Ahmednagar and the Boer Prisoners.—The Decline of the Plague Epidemic.—The Punjab Government and Medical Fees.—The new Presidency General Hospital in Calcutta.—Encouragement to Native Sanitary Inspectors.—The Cost of Last Year's Famine.

THE question of the hour is the reputed unhealthiness of Ahmednagar as a station for the Boer prisoners. Apart from its selection from a military point of view it may be at once said that a place which is maintained for the stationing of about 1000 British troops ought to be suitable to receive a smaller number of Boers. The town stands on the plateau of the Deccan 2125 feet above the sea, and in the district there are hills rising to 8000 feet. During 1898 and 1899 enteric fever caused an increased mortality, but the insanitary conditions to which the disease was then attributed have been remedied, and it is said that the prevalence of the disease has much lessened since. For intermittent fever it compares favourably with India as a whole, and heat-stroke is distinctly less there than at most other stations. Dysentery is not so prevalent as in the adjoining presidency or at other stations in the Deccan, and in 1899 it was particularly free from cholera. The annual rainfall is about 26 inches, but in 1899 (the date of the last report) the water-supply was deficient owing to scanty rains. From a comparison of the admission rate and the death-rate for various diseases apart from enteric fever the station can be fairly considered a healthy one. The death-rate from enteric fever for 1899 was 10 8 per 1000 of the strength, and in 1898 it was 6 55 per 1000. The year 1899 was exceptional, and the station did not show the diminution in the amount of enteric fever which took place nearly all over India, although in 1898 it compared favourably with the prevalence of the disease throughout the whole dependency. The death-rate for enteric fever throughout India in 1898 was 10 17, which declined to 5 14 in the year 1899.

The returns for the past week show a further great decrease in plague mortality throughout India—the figures having dropped from 6304 in the previous week to 4093. Deaths decreased in the Bengal districts from 3258 to 1707, and in Calcutta from 389 to 215. In the Bombay presidency the deaths fell from 570 to 468, and in Bombay city from 602 to 393. In the North-West Provinces the deaths also fell from 662 to 424. The Punjab alone shows an increase—viz., from 518 to 547 deaths. 20 cases of plague, however, are reported at Patiala and the disease has broken out in Allahabad. There were 5147 cases of plague vaccine sent out from the Plague Research Laboratory, Bombay, last week. Of these, 2000 went to Gurdaspur and the Sialkot district, 1407 to Simla to the Punjab, 1000 to Karachi, and 503 to German East Africa.

The Punjab Government have interfered in the matter of charges rendered on account of medical attendance on the late Maharaja of Patiala and the ladies of the palace during 1899 and 1900. One item of the account amounts to Rs. 5250 and the Lieutenant-Governor thinks this ought to be reduced to Rs. 1750 which would equal Rs. 100 per diem for attendance, and Rs. 50 per diem for the detention of the medical attendant in the Patiala State.

The new Presidency General Hospital in Calcutta is not yet open. Up to the end of March last a sum of nearly 15 lakhs was spent upon it, but it does not appear to be the intention of the local Government to proceed much further at present. The works are practically completed for the new block for males, for the nurses' quarters, and the beginning of the infectious diseases ward. The idea of a dairy has been abandoned.

The Bengal Government propose to give three scholarships of Rs. 50 per mensem tenable for one year to passed students of the Sibpur Engineering College who undergo a course of practical training under the sanitary engineer with a view to providing trained men for service under municipalities and district boards.

In the financial year 1900–1 the expenditure on famine relief is estimated to have been £4,227,000, and special advances amounting to £947,000 were made to agriculturists.

May 4th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Medical Appointments at the Royal Infirmary.

AT the meeting of the board of the Manchester Royal Infirmary held on May 20th Mr. Joseph Collier, the senior assistant surgeon, was appointed an honorary surgeon to fill the vacancy caused by the retirement of Mr. J. Hardie. Mr. Charles Roberts and Mr. Ernest W. Floyd were appointed public to find the money. It is estimated that the total amount required will be some £250,000, towards which contributions amounting to £80,000 have already been promised. For a time the financial question seemed likely to breed mischief between the infirmary managers and the reconstruction committee. The latter contended that having selected a plan for rebuilding and collected £80 000 their functions had ceased, and that the remaining financial responsibility must rest on the shoulders of the infirmary management, a proposal to which the managers not unnaturally objected. They expressed their consent willingly to the reconstruction of the buildings on the north side with the money already collected, but they declined to permit further interference with the infirmary until the total amount of money needed for the entire reconstruction scheme was raised. To this view the reconstruction committee appear to have become converted and they have now issued an appeal for a further £170,000. Together with the request for money the committee combat at length the various criticisms to which their decisions and proposals have been subjected. The selection of the present site they defend not only on the ground of its proximity to a vast industrial population, but also because the adjoining public square, necropolis, and cathedral afford a guarantee that the site will remain an "open" one permanently, and that no other position will secure this condition unless the infirmary is removed far from the city to a place where the attendance of medical men of the highest standing cannot be commanded. They point out also that the removal of cases of severe injury or accident to a distant spot would be full of danger to the patients. The surroundings of the large London hospitals are instanced in favour of the decision and the committee further quote the opinion of Dr. J. B Russell, late medical officer of health of the city. Against the comment that the proposed plan adds 60 more beds to a site already overburdened with 600 the committee allow that in the present building some of the wards offer a greatly insufficient cubic space, but they state that the new infirmary will provide for every one of its 660 beds an amount of air-space as ample as the most advanced hospital reformer has ever alleged to be necessary, and that in every ward there will be the fullest through-and-through ventilation in addition to any system of artificial ventilation that may be adopted. The provision of the necessary bed-space is to be obtained by carrying the buildings to a height of six storeys, but this, it is urged, will be an advantage rather than otherwise, and members of the staff will, it is anticipated, compete with each other for the upper floors, an adequate service of lifts being, of course, provided. The plan, it is also explained, secures an arrangement of the buildings so that only the minimum of shadow will be cast by any one block on any other and this is advanced as one of its leading merits. In regard to their selection of a plan other than the one recommended by their professional assessor the committee explain that the plan adopted was not excluded by the assessor from any failure in regard to vital or essential particulars but chiefly from a difference of opinion in regard to the style of architecture and the general elevation, on which matters the committee think that they are quite entitled to follow their own opinion. Detailed reasons are advanced in favour of the plan adopted, the elevation of which, it is stated, will in no wise prejudice the architectural and æsthetic effect of the neighbouring cathedral. Altogether it must be admitted that the committee make out a very fair case, and it is to be hoped that any feelings of irritation which have existed will now be allowed to subside and that all interests will work harmoniously to secure the modern and thorough equipment of an institution which is one of the oldest and most valuable of the medical charities of the city. When the infirmary is rebuilt it will undoubtedly be one the largest and best hospitals in the United Kingdom. There must be a great want of tact and management somewhere if such an institution is not made fully available as a clinical school for the numerous medical students of the University. It is notorious that many of the classes at the Western Infirmary are much overcrowded, yet the wards of the Royal Infirmary find but a *scanty contingent* of students.

Glasgow University.

The executive committee appointed in January last to deal with the question of providing funds for the better equipment of the University and for meeting the demand for extended laboratory and research facilities have issued a statement describing the immediate requirements in these respects. In the medical faculty it is stated that claims more particularly arise in the departments of materia medica, forensic medicine and public health, and physiology and surgery, and it is proposed to meet these by the erection of new buildings which, together with some minor rearrangements, will cost £50,000. New buildings and apparatus needed in the science faculty are estimated to cost £45,000. The demand for increased accommodation in the faculties of arts and law will, it is anticipated, be met by the removal of the departments just enumerated into new buildings. The teaching staff ought, it is stated, to be reinforced by the foundation of professorships in civil law and in organic chemistry, and by the institution of lectureships on English language, ancient history, philosophy, and electricity. The total sum for which an appeal is made is £150,000. Towards this subscriptions amounting to £38,000 have already been privately intimated. They include a donation of £5000 from Mr. John S. Templeton and a similar sum, "ear-marked" for the physiology department, from an anonymous source per the Right Hon. J. A. Campbell, M.P. The trustees of the late Wm. Houldsworth give £2000, and Mr. Andrew Stewart, LL.D , who recently endowed a chair of Political Economy, £1500. Amongst the donors of subscriptions of £1000 are Lord Rosebery, Lord Kelvin, Sir John Stirling Maxwell, Sir Charles Tennant, Sir James Bell, Sir Charles W. Cayzer, the Right Hon. James A. Campbell, M.P., Mr. J. S Kennedy, New York, Mr. William Ker, and Mr. James Napier.

Outbreak of Small-pox at Braemar.

About a fortnight ago a fatal case of small-pox occurred in an isolated cottage at Braemar, in the Aberdeenshire Highlands. Since then there have been reported six other cases, three of which are being treated in the same cottage and the remainder (including the lady caretaker) in the local hospital, which is being enlarged to meet the emergency. The outbreak is unfortunate at the commencement of the holiday season, Braemar being a great summer and autumn health resort. All precautions as to vaccination are being taken, and a medical man and selected staff of nurses have been sent from Aberdeen specially to attend to the cases.

Elgin Infectious Diseases Hospital.

The Joint Committee of this hospital having had before them a letter from Dr. Watson, medical officer, as to the work done at the hospital during the year, have fixed the salary at £50 per annum. The charge of five guineas per head per week made for small-pox patients from Burghead was confirmed, it being stated there would be a loss rather than a profit, the total extra expense having amounted to £145, including disinfecting.

Small-pox in Aberdeen.

Professor M. Hay, medical officer of health to the city, reports that the seventh case in the present series (commencing Jan. 1st, 1901) was that of a girl employed at Broadford Works who is now nearly fit to be discharged from the City Hospital. About 300 workers in the same factory have been revaccinated and there has been no spread of the disease. The city local authority have revaccinated the following numbers :—At the Sanitary Office, 874 ; the Royal Infirmary, 1094 ; the City Hospital, 122 ; the Dispensary, 56 ; Marywell-street School, 290 ; St Clement-street School, 183 ; Woodside Police-station, 253 ; Old Aberdeen Townhouse, 139 ; Walker-road School, Torry, 192 ; Torry School, 11 ; and elsewhere, 330—total, 3544. The number of revaccinations performed privately has been still larger. The extra expense to the rates so far as is yet known is £135 13*s*. 4*d*., including £44 7*s* 1*d*. for vaccine lymph, and £91 5*s*. to medical men and others for personal services.

May 21st.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Dublin Sanitary Association.

THE council of the Dublin Sanitary Association met on May 9th and passed the following resolution :—

> That having regard to the very serious epidemic prevalence of acute pneumonia or pneumonic fever in Dublin and its vicinity, and to the proved infective or zymotic origin of this disease, the council are of opinion that the disease should take its proper place among zymotic affections in the periodical returns of the Registrar-General for Ireland.

At the previous meeting of the association a resolution was adopted calling the attention of the Local Government Board for Ireland to the eminently unsatisfactory state in which the notification of infectious diseases at present stands in the Dublin registration area and adjoining districts. It transpired that the Notification of Infectious Diseases Act had not yet been adopted in such important urban districts as Kingstown, Blackrock, and Dalkey. Moreover, there is a difference of practice as to the diseases which are notifiable; for instance, measles is not notifiable in Rathmines while it is so in Dublin and Pembroke; whooping-cough is not notifiable in Dublin or Rathmines while it is so in Pembroke. The council expressed an opinion that the time has now come for assimilating the law of notification in Ireland to that in force in England, Scotland, and Wales, where notification is now universally compulsory.

Presentation to Mr. Thomas Myles, P.R.C.S Irel.

A few intimate professional friends of Mr. Myles, President of the Royal College of Surgeons in Ireland, met some days ago at 33, Merrion-square, Dublin, for the purpose of presenting him with a carriage and an illuminated address as a mark of their appreciation and regard. Sir Charles Cameron occupied the chair and made one of his usual felicitous speeches. Sir F. Cruise, D.L., was called to the second chair, when a vote of thanks was passed to Sir Charles Cameron for kindly presiding on the pleasing occasion.

Small pox in Belfast.

At a meeting of the Belfast Board of Guardians on May 14th, one of the members stated that a woman admitted to the infirmary with small-pox had come from nursing a child in Glasgow affected with the disease, and that the bedding and furniture were allowed to be brought through the public thoroughfares of the city without let or hindrance. He referred to the matter as showing great laxity on the part of the Public Health Committee.

The Royal Victoria Hospital, Belfast, and the Medical Students.

Some recent appointments to the resident staff of the Royal Victoria Hospital have given rise to considerable adverse criticism on the part of the medical students of the school. The following are the facts. Two intern vacancies were announced to be filled up on May 11th, and for these posts there were three candidates—two old students of the school who had been resident pupils in the hospital and a third, a young medical man, the son of a well-known practitioner in Belfast, who had studied in Dublin. The appointments are made by the board of management and life governors. On the eve of the election a circular was sent, signed by the secretary of the Students' Representative Council and by the secretary of the Belfast Medical Students' Association, asking the board of management to give preference to the candidates trained in Belfast, because they have been trained in the school and have been resident pupils in the hospital. Their qualifications, the circular said, were not inferior to those of any outsider; and to appoint an outsider would cast a slur on the teaching of this school and discourage the students attending it. All three candidates were graduates in medicine; one was a first class honours man of the Royal University, the second was a pass graduate of the same institution, and the third was a pass graduate of Trinity College, Dublin. At the election the Trinity College man, whose father resides in Belfast, and who in this way had local influence among the life governors, was elected by a large majority, and the other successful man was the first-class honours man of the Royal University and one of the most distinguished men the Belfast Medical School has had for some time. As a result the students, who were most indignant, held a meeting, an account of which was published in the Belfast papers of May 18th, and passed a resolution viewing with regret the action of the staff of the Royal Victoria Hospital in connexion with the recent appointment of resident medical officers. Further, they thought that the hospital staff should have taken up a firmer position in regard to the medical qualifications of candidates. A second resolution was also passed, stating that the Belfast medical students, being dissatisfied with the treatment they received in the Royal Victoria Hospital, directed the medical secretary of the Students' Representative Council to approach the Royal College of Surgeons, Dublin, with a view to the recognition of the Union Infirmary, Belfast, as a teaching hospital.

The Irish Census Returns.

From the returns just issued the population of Ireland is now 4,456,546—a decrease of about 5·3 per cent. In three counties there is an increase—Down, Antrim, and Dublin (the presence of the two cities of Belfast and Dublin give the explanation). There is less decrease in Ulster (2·4 per cent.) than in the other four provinces. Belfast, in population, is now by far the premier city of Ireland, and relatively it has increased in numbers more than any other town in the country. Its inhabitants are now 348,876 instead of 255,950 at the last census (an increase of over 90,000). Dublin has a population now of 286,328 instead of 269,710 last census. These figures show that not only has Belfast a population exceeding that of Dublin, but that while Dublin during the past 10 years has increased by 16,618, Belfast has, during the same period, added 92,926 to its numbers. Of the other cities, Derry has increased since the last census by over 6000, Cork by over 2000, while Limerick and Waterford have diminished.

Nurses in Poor-law Hospitals.

On May 14th at Dublin Castle several boards of guardians appealed under Section 14 of 10 and 11 Victoria, ch. 90, against an order of the Local Government Board for Ireland, dated Feb. 4th, 1901. The question involved was the right of the Local Government Board for Ireland to insist upon the appointment of qualified nurses and attendants in poor-law infirmaries and hospitals.

May 21st.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Lumbar Puncture in Uræmic Headache.

AT the meeting of the Société Médicale des Hôpitaux, held on May 3rd, M. Marie and M. Guillain reported an interesting case occurring in a young man suffering from albuminuria with enormous increase of the arterial pressure and complaining of very violent headache which neither analgesics nor milk diet could relieve. Lumbar puncture showed that there was considerable hypertension of the cerebro-spinal fluid, six cubic centimetres of which escaped in a jet. The headache diminished rapidly and disappeared entirely at the end of two hours. The improvement lasted for several days. It might, therefore, be asked whether certain nervous phenomena of uræmia, such as headache, transient amaurosis, &c., might not depend on hypertension of the cerebro-spinal fluid, just as in the case of cerebral tumour. If this be so, the best treatment of uræmic headache would be lumbar puncture. At the same meeting M. Legendre quoted the case of a uræmic patient suffering from headache, insomnia, and myosis, who was similarly relieved at once by lumbar puncture. At the next meeting, held on May 10th, M. Babinski added a strange case to this list of instances of relief of cerebral troubles on the reduction of the intra-spinal pressure. A patient under his care, the subject of cerebral tumour, suffered from headache which disappeared regularly for three days after the menstrual flow; menstruation, therefore, seemed here to act as a natural blood-letting, so to speak, diminishing the blood-pressure and consequently the pressure of the cerebro-spinal fluid.

The Chair of History of Medicine.

At the Faculty of Paris the chair of History of Medicine is again vacant, its occupant, M. Brissaud, having made an application to exchange to the chair of Internal Pathology which Professor Debove has given up in order to become the successor of M. Potain in the chair of Clinical Medicine. The list of candidates for the chair of History of Medicine submitted by the Faculty gives the first preference to M. Déjerine, and after him to M. Gilbert Ballet. Now M. Déjerine, an eminent neuro-pathologist, makes no secret of his intention if appointed to quit his post whenever an opportunity arises, in order to take the first chair of Internal Pathology which becomes vacant. The council of the faculty is not ignorant of this intention, but it asserts that at least M. Gilbert Ballet, the candidate second in order of preference, who will in due course be M. Déjerine's successor, has given a formal undertaking never to seek an exchange and to devote himself permanently to the chair of History of Medicine. These combinations and bargainings are criticised with much severity in medical circles. It seems, in fact, that the chair of History of Medicine is no longer the abiding place of a real specialty, and that it has become a sort of waiting-room for specialists in different branches, neuro-pathologists, physicians, and surgeons, who get themselves appointed to it by virtue of personal considerations, and who resign at once whenever they can obtain a chair of the specialty which they cultivate, the consequence being that the appointment to the latter is not made as the result of a genuine contest between specialists in the same subject It would be much better to prohibit exchange of chairs in different specialties. This chair of History of Medicine was created at the time of the foundation of the new Faculty of Medicine in 1795, and had for its first occupant Jean Goulin of Reims, a real historian, who on his death at the end of four years was succeeded by the celebrated Cabalis. The latter had no successor, the chair being suppressed. In 1869 M. Salmon of Champoteran, a councillor of State, bequeathed to the faculty a sum of 150,000 francs (£6000) for the foundation of a chair of History of Medicine. Daremberg was the first occupant and held the position for two years. His successor, Lorain, likewise died at the end of two years. Then came M. Parrot, who exchanged in 1879 to the clinical chair of Children's Diseases. On his death there was a keen competition between M. Laboulbène and M. Olivier, the latter of whom, a celebrated specialist in children's diseases, probably intended to follow the example of M. Parrot and ultimately to exchange into the chair of Children's Diseases. M. Laboulbène, however, was successful by one vote and lectured conscientiously until his death in 1898. M. Brissaud who succeeded him and has just exchanged into the chair of Internal Pathology will have lectured for exactly a year. These deplorable transactions show to what an extent in the highest medical circles in France merit may be subordinated to personal considerations.

May 20th

CANADA.

(FROM OUR OWN CORRESPONDENT.)

McGill University, Montreal.

A DECIDED change in the matriculation standard of the medical faculty of McGill University will come into effect in September, 1902 The requirements for this examination have been raised all along the line, and hereafter Greek, German, and French will be the only optional subjects at this examination In addition to this all candidates will be required to show that they are possessed of a sound practical knowledge of chemistry and a thorough acquaintance with theoretical physics, statics, and dynamics. One of the subjects of Greek, German, or French must be taken. The authorities are anxious to make the medical faculty unexcelled by any other similar faculty in the world and towards this end it is proposed still further to increase the matriculation standard in the near future, so that all candidates before matriculating in medicine will be required to show that they have taken the first-year arts course in some recognised university. Not long ago McGill University lengthened its session from six to nine months and a combined arts and medical course was established. By the present changes those students who have been in the habit of pursuing their studies while also engaged in outside employment will have to abandon the latter if they wish to continue at their medical studies.

Death of Two Toronto Physicians.

Two well-known medical men have recently died in Toronto under sad circumstances. Dr. J. Archer Watson was riding on horseback about 10 miles out of the city; a train approached, the horse backed on the track and threw its rider violently against the engine-boiler, and the rapidly running train dashed him across the road against a board fence and instantly killed him. Dr Watson was 45 years of age He graduated from Trinity Medical College in 1885 —Dr Thomas Henry Little, also of Toronto, died on the morning of April 25th from hæmorrhagic small-pox. About 10 days before his death he had been summoned to attend a young man who had recently arrived from Cleveland, Ohio, U.S.A., where small-pox was prevalent. Dr. Little developed the disease in a very virulent form and from this he subsequently died. He was 39 years of age and was a graduate in medicine of Toronto University, having been in practice in Toronto for upwards of 12 years.

The Victoria Asylum for Women.

A new asylum for women, to be called the "Victoria Asylum for Women," is fast nearing completion at the town of Cobourg, Ontario. It will be ready for the reception of patients in September. Dr. McNichol of Cobourg has been appointed to the position of superintendent and Dr. Harriet Cockburn of Toronto has been appointed assistant physician. This is the first instance in this province of governmental recognition of the claims of female medical practitioners. Since her graduation Dr. Harriet Cockburn has had considerable hospital experience, having been connected for some time with the Dakota State Asylum for the Insane, Dakota, U S.A. Dr. McNichol has retired from private practice and is at present studying in the various asylums of the province, thus familiarising himself with the work which he will have to perform.

Queen's University, Kingston.

Queen's University, Kingston, Ontario, held its annual exercises for conferring medical degrees on April 10th. On that occasion Dr. Herald, the secretary of the medical faculty, performed the ceremony of presenting the Dean Fowler Scholarship which has lately been founded by the faculty and medical graduates of this institution both in the United States and in Canada. This scholarship will commemorate the lifelong services of Dr. Fife Fowler, late professor of medicine and now honorary dean of the Faculty. Dr. Fowler went to Kingston from Edinburgh in 1854 just at the time when the medical faculty of Queen's University was being founded. He received the appointment of professor of materia medica and this he held until 1878 when he was promoted to the chair of Medicine which he continued to hold up to a year ago. He was appointed dean in 1883. Dr. Fowler, in replying to the presentation, referred to the fact that he alone remained alive at that day of all the founders of the medical faculty of Queen's University.

Small-pox in Ontario.

Only a few weeks ago it was thought that the present outbreak of small-pox in Ontario was showing signs of abating, but since that time there have been created several new centres of infection, notably one on the Indian Reserve along the Grand River in close proximity to the city of Brantford. The Ontario Board of Health recently held its quarterly meeting in Toronto and discussed the small-pox situation, when Dr. Bryce, the provincial health officer, dealt very severely with some physicians who persisted in calling the outbreak "chicken-pox" Dr. Bryce further called upon the Medical Council to discipline these physicians as they were trifling with the health of the community and obstructing and hindering the work of the provincial health officials.

Toronto Clinical Society.

The final meeting of this society for the 1900–1901 session was held on May 1st. Some interesting cases were shown and reported upon by Dr. H. A. Bruce, Dr. F. Le M. Grasett, and Dr. George A. Bingham. The annual elections were held resulting as follows:—President: Dr. J. F. W. Ross. Vice President: Dr. E E King. Treasurer: Dr. W. H. Pepler. Recording Secretary: Dr. George Elliott. Corresponding Secretary: Dr. A. A Small. Executive Committee: Dr. H. J Hamilton. Dr. H. B. Anderson, Dr. W. B. Thistle, Dr. H. A. Bruce, and Dr. G. A. Bingham.

Toronto, May 6th.

Obituary.

WILLIAM JOHNSTONE FYFFE, A.B., M.D. DUB., L.R.C S. IREL.,

DEPUTY SURGEON-GENERAL ARMY MEDICAL DEPARTMENT (RETIRED)

DR. WILLIAM JOHNSTONE FYFFE died at his residence, 2, Rodney-place, Clifton, on May 17th, in his seventy-sixth year. The deceased, who was born in the north of Ireland, graduated M.D. of Dublin University in 1847, and the same year qualified L.R C.S. Irel. He then entered the army as a surgeon and shortly afterwards was stationed at Jamaica with the 3rd West Indian Regiment. A severe epidemic of cholera occurred there during the time, and Dr. Fyffe gained much commendation by the skill and devotion which he displayed. He was afterwards attached to the 5th Dragoon Guards and served during the Crimean war, after which he was for a time assistant professor of medicine at Netley Hospital. He retired from the army with the rank of deputy surgeon-general about 30 years ago and commenced practice at Clifton. He was physician to Clifton College and on the honorary staff of the Clifton Dispensary. Dr. Fyffe was a former president of the Bath and Bristol Branch of the British Medical Association and also of the Bristol Medico-Chirurgical Society. He had retired from practice a few years ago, was held in the highest esteem by his professional *confrères* and by the residents of Bristol and Clifton. He leaves three sons and three daughters, for whom much sympathy is felt.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Eduard Golebiowski of Berlin, a recognised authority on accidental injuries—Dr. Karl Laufenauer, Professor of Nervous and Mental Diseases in Budapest.—Dr. Ferdinand Albert Heidenreich, an aged practitioner who was an enthusiastic botanist, was murdered in his own house at Tilsit by burglars.

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—In May the following candidates passed in the subjects indicated:—

Surgery.—J. C Baggs (Section I), St. Thomas's and Westminster Hospitals; [illegible]

M[illegible]

[illegible] Manchester; B Goltein (Sections I. and II), Vienna; W. O Greenwood (Section II), Leeds; J. I Halstead (Section II), Manchester; S K. K. Haslam (Section II) Royal Free Hospital, C G Meade (Sections I. and II), and M. J. Ryan, St. Bartholomew's Hospital; P P. Tobit (Section I), King's College Hospital; V. F. Wall (Sections I. and II), St. Mary's Hospital; and M J. Williams, St Bartholomew's Hospital.

Forensic Medicine.—J. C Baggs, St Thomas's and Westminster Hospitals, B Goltein, Vienna; C. A Lower, Guy's Hospital and Bristol; [illegible] and M. J. Williams, St. Bartholomew's Hospital.

The diploma of the Society was granted to the following candidates, entitling them to practise Medicine, Surgery and Midwifery: P. A. Chillcott, D J Ferris, B Goltein, W. O Greenwood, J I Halstead, S K. K Haslam, J. Kemp, C G. Meade, M. J. Ryan, and V. F. Wall.

FOREIGN UNIVERSITY INTELLIGENCE.—*Berlin*: Dr. H. Liepmann has been recognised as *privat-docent* of Neurology and Mental Diseases.—*Geneva*: Dr. Louis Mégevaud has been appointed to the chair of Forensic Medicine in succession to the late Professor Gosse.—*Halle*: Dr. E Kromayer, *privat-docent* of Dermatology, has been granted the title of Professor.—*Havana*: Dr. Aristides Agramonte has been appointed Professor of Bacteriology and Experimental Pathology.—*Heidelberg*: Dr. O. Simon has been recognised as *privat docent* of Surgery.—*Kieff*: Dr. Malinovski has been promoted to the Ordinary Professorship of Surgery.—*Königsberg*: Dr Garrè of Rostock has been appointed to the chair of Surgery in succession to Dr. von Eiselsberg.—*Leipsic*: Dr. Müller has been recognised as *privat-docent* of Medicine.—*Leyden*: Dr. Hansemann of Berlin has declined the Professorship of Anatomy which he was offered.—*Munich*. Dr. Haug, *privat-docent* of Otology; Dr. Mollier, *privat docent* of Anatomy; and Dr Cremer *privat docent* of Medical Physics, have been promoted to Extraordinary Professorships.—*Paris*: Dr Déjerine *agrégé*, has been appointed Professor of the History of Medicine and Surgery in succession to M. Brissaud.—*Prague* (*Bohemian University*). Dr Stanislaus Ruzicka has been recognised as *privat docent* of Hygiene, and Dr. Ladislaus Syllaba as *privat docent* of Medical Pathology and Therapeutics.

ON May 17th the Duchess of Somerset formally opened the new cottage hospital at Totnes.

DR. HENRY WARD IRVINE of Birmingham has been appointed one of His Majesty's Inspectors of Schools.

THE JACOB MEMORIAL.—The first subscription list for this memorial closes on June 20th. The honorary treasurers are Sir Charles Cameron, C.B., and Mr. L. H. Ormsby, V P.R C S. Irel., Dublin.

SOCIETY OF MEDICAL PHONOGRAPHERS.—At the society's recent shorthand examination for medical students the first prize (£5) was awarded to Mr. James M. Kirkness of Edinburgh University, and the second (£3) to Mr. Joseph P. Byrne of the Royal College of Surgeons in Ireland.

FREEMASONRY.—*Rahere Lodge, No. 2546*.—An ordinary meeting of this lodge was held at Frascati's Restaurant, Oxford-street, W., on May 14th, W. Bro. Walter Gripper, M.B. Aberd., W.M., being in the chair. Bros. Ware and Beadles were admitted to the Third Degree, while Mr. David Boyd Keown, M.R C S. Eng., L.R.C P. Lond., was initiated into Freemasonry. Grants of ten guineas each were voted for the Boys' School and the School for Girls. W Bro. Phineas S. Abraham, M.D. Dub., was elected W.M for the ensuing year, while W. Bro. Clement Godson, M D. Aberd., was re-elected treasurer. Subsequently a number of the brethren dined together.—*The Middlesex Hospital Lodge, No. 2843*.—The first regular meeting of this lodge was held at the Freemasons' Hall on May 16th, W. Bro. T G A. Burns, P.P.G.D Surrey, W.M., being in the chair The following brethren were elected as joining members: W. Bro. General the Hon. Herbert F. Eaton, Bro. A. B. Alexander, L D S. R.C S., Bro. A. R. Godrich, Bro. R. A. Young, M.D. Lond., Bro. C. Vincent Cotterell, L.D S R C S Irel., Bro. Armstrong Smith, Bro. A. F. Palmer, Bro. J. C. Cresswell, M.R C S., and Bro. E. Norton, M D. The following gentlemen were initiated into Freemasonry: Sidney Coupland, M.D. Lond., Edward A. Fardon, M.R C S Eng., John Murray, F.R.C.S. Eng., and Herbert E. Gunson, M.A.

LIVINGSTONE COLLEGE.—Livingstone College, Leyton, was opened on May 23rd by Mrs. Bruce, the elder daughter of the late traveller who gives his name to the college. Founded in 1893 for the purpose of giving a year's training in the elements of medicine and surgery to missionaries who are likely to be placed in stations far from qualified medical assistance, over 100 students have since its inception passed through the college. A pamphlet with illustrations has been issued in order to enable friends of the college to realise the conditions under which the work is being carried on in the new premises, which are intended to form a memorial in London to the memory of the late Dr. Livingstone It would have been difficult to find a more suitable building, and it has been readily adapted to its new purpose. It is hoped that the sum of £3500 which is still needed for the purchase of the property may speedily be subscribed, in order that the work of Livingstone College may be carried on without financial difficulty, and become, as it has been in the past, practically self-supporting. Full particulars concerning the college or the Livingstone Memorial Fund may be obtained from the Principal, Dr. C. F. Harford-Battersby, Livingstone College, Knott's Green, Leyton, E.

ROYAL METEOROLOGICAL SOCIETY.—The monthly meeting of this society was held on May 15th at the society's rooms, 70, Victoria-street, Westminster, S.W., Mr. W. H. Dines, B A, the President, being in the chair. Mr. Rupert T. Smith read a paper on the Periodicity of Cyclonic Winds, which was the result of a discussion of his own observations made in the neighbourhood of Birmingham during the 26 years 1874–99. The equinoxes did not appear to be very stormy periods, but from the author's tables it was shown that the greatest frequency and force of cyclonic wind occurred some two weeks before the spring equinox and some three weeks after the autumn equinox. Mr. W. Marriott gave an account of the bequest by the late Mr. G. J. Symons, F R S., to the Royal Meteorological Society. Mr. Symons (who died on March 10th last year) was the founder of the British Rainfall Organisation and was a most distinguished meteorologist. He took a great interest in the welfare of the society and he held the office of secretary for a period of 25 years and was twice elected President. By his will Mr. Symons bequeathed to the society his Cross of the Legion of Honour, the gold Albert Medal awarded to him by the Society of Arts, the testimonial album presented to him in 1879 by the Fellows of the Royal Meteorological Society, and the sum of £200, as well as such of his books, pamphlets, maps, and photographs of which there was no copy in the society's library. Mr. Marriott stated that from Mr. Symons's valuable collection he had selected for the society over 5000 books and pamphlets and about 900 photographs. A large number of the books were old and rare works, 750 bearing dates previous to 1800, while eight were as early as the fifteenth century. By this noble bequest the Royal Meteorological Society now possesses the most complete and extensive meteorological library in existence.

THE COLONIAL NURSING ASSOCIATION.—The fifth annual report for the year ending April 30th, 1901, of the executive committee of the Colonial Nursing Association has just been issued. The association, which was established in 1897 for the purpose of providing trained nurses in the Crown colonies and small English communities in foreign countries, has 67 nurses now at work, of whom 46 are employed in Government hospitals and 21 as private nurses, against a total of 56 last year, 34 being Government and 22 private nurses. The only new branch started this year was one in Costa Rica. The chief feature of the year under notice was the great increase in the staff of nurses employed by the Government on the West Coast of Africa. Eight fresh nurses were supplied to Nigeria, and Old Calabar also applied for a second nurse to supplement the one previously sent out. Two extra nurses were also selected for the hospital at Singapore, bringing the staff there up to eight Hitherto all Government appointments have been made at the request of the Colonial Office; but the Foreign Office has now made use of the organisation of the association to supply two nurses for work in Zomba, British Central Africa. In consequence of the many calls on the public purse during the past year it was felt that it would be impossible to raise the balance still required to make up the £5000 invested capital originally asked for by Mrs. Chamberlain. It is hoped that this year the remainder of this sum may be subscribed in order to set the association on a perfectly sound financial basis. In connexion with the association it has been proposed to start a sick pay fund to provide temporary financial assistance to any nurse who may become incapacitated during her connexion with the association. In order to raise the nucleus of such a fund it is proposed to hold a ball during the present year.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Habitual Drunkards.

THE Government has adopted the Bill of the Bishop of Winchester dealing with the subject of habitual drunkards and since the adoption took place the measure has been very much altered in the House of Lords In its present state the Bill makes it an offence for a convicted habitual drunkard to ask for drink in licensed premises and for the licensee to supply him, enables the husband of a woman who is an habitual drunkard to get an order equivalent to a judicial separation on the ground of cruelty, and provides a special penalty for a person found drunk while in charge of a child under seven years of age.

HOUSE OF COMMONS.

THURSDAY, MAY 16TH.

Uncertified Deaths in Inverness-shire.

Mr. JOHN DEWAR asked the Lord Advocate (1) whether the Secretary for Scotland was aware that the medical officer of health of Inverness-shire in his report recently issued called special attention to the fact that during the last 10 years there had been as many as 3957 uncertified deaths in the county; and that during last year 80 deaths were registered in the parish of Duirinish, of which 51 were uncertified by a medical attendant, that in Kilmuir 47 deaths were registered, of which 33 were uncertified, and that in South Uist, of 85 deaths registered, 57 were uncertified, and that taking the entire county, nearly 400 persons were buried during the year whose deaths had not been certified by a member of the medical profession; and (2) whether in view of these facts, the Secretary for Scotland would introduce legislation on the subject as soon as opportunity offered in order to remedy these conditions.—The LORD ADVOCATE replied that the answer to the first paragraph was in the affirmative. As he had already stated a medical certificate of death was not a necessary condition of burial in any part of Scotland, and the Government were not at present prepared to legislate on the subject.

The Manipulation of Butter.

Mr. HANBURY, in reply to questions on this subject, said that the Board of Agriculture had official knowledge of one factory in Finsbury in which butter was mixed with milk by a mechanical process and the Board were following up information supplied to them as to the existence of others. The Finsbury firm had a very large number of depôts scattered over the country and the quantity sold was presumably large. He had no power to send an inspector into such a factory, though one was admitted into the Finsbury factory on sufferance. Nor had he power to stop the sale of butter so manipulated. But the Board had been acting in concert with various local authorities to have the legality of the sale of butter so treated tested in a court of law. A conviction was recorded against the Finsbury company last Wednesday at Longton against which the defendants had given notice of appeal. There were three prosecutions pending. The whole question pointed to the necessity for fixing a standard of butter, which he hoped to be able to do without any avoidable delay.

Plague in South Africa.

Mr. CHAMBERLAIN stated in reply to a question that there was an isolated imported case of bubonic plague at Durban in May of last year, since when no further cases had been reported. The governor of St. Helena, on the recommendation of the Medical Board there, had issued an Order in Council that no person or cargo coming from ports in South Africa south of 25° south latitude should be allowed to land. The question whether this Order in Council must not be modified was under consideration and that of landing troops from Durban could not be settled until this point was decided. It appeared to him that the fears of the local authorities were somewhat exaggerated.

FRIDAY, MAY 17TH.

The Butter Question.

Mr. O'SHAUGHNESSY asked the President of the Board of Agriculture whether he would explain why the Board of Agriculture had not yet fixed the standard of water in butter, which they had been empowered to do by legislation.—Mr. HANBURY replied. The power of fixing what is somewhat inaccurately described as a standard of milk and butter was first given to the Board in January of last year. It was then decided that a committee should first inquire into the question of milk, and that committee was appointed on Jan. 29th, 1900, and reported in January of this year. We are now working in concert with the Irish Department in preparing the necessary evidence to submit to a committee dealing with butter.

Lead-Poisoning.

Sir CHARLES DILKE asked the Home Secretary whether the increase in the more serious forms of lead poisoning and decrease in the less serious shown by the return on lead-poisoning could be accounted for by any reasons which could be stated to the House in reply to a question.—Mr. RITCHIE replied: I cannot accept without qualification the hon. baronet's statement that the more serious cases of lead-poisoning have increased. The most serious cases, the fatal ones, have, as appears from the return, been reduced by one-half from 16 in 1899 to eight in 1900 In the current year up to the present only two deaths have been reported. With regard to other serious cases there was an increase among males and a decrease among females of cases of paralysis and a decrease among males and an increase among females of cases presenting brain symptoms. These are the accidental fluctuations which will always occur in dealing with small numbers. The truth seems to be that owing to the greater precautions now adopted there has been a general decrease of lead-poisoning, which in the more serious cases is qualified to some extent by the effects of conditions extending back to former years.

The Reform of the Army Medical Service.

Sir JOHN TUKE asked the Secretary of State for War whether he proposed to adopt the suggestion contained in the report of the Royal Commission appointed to consider and report upon the care and treatment of the sick and wounded during the South African campaign to appoint a departmental or other committee of experts to inquire into and report upon the steps needed to effect certain reforms in the Royal Army Medical Corps, and, if so, whether he was prepared to state the composition of such committee.—Lord STANLEY replied. The Secretary of State is preparing various proposals to submit to a committee of experts, but the composition of the committee cannot at present be stated.

MONDAY, MAY 20TH.

The Workhouse Nursing Question in Ireland.

Mr J. P. FARRELL asked the Chief Secretary to the Lord Lieutenant of Ireland would he explain on what grounds the Local Government Board had required the medical officer of Granard Union to employ a trained nurse at £1 11*s.* 6*d.* a week to nurse a baby whom he found in charge of a pauper inmate; was he aware that the nurse in question refused to live in the workhouse and took a room in the principal hotel in Granard, and could he state when such orders of the Local Government Board would be withdrawn—Mr. WYNDHAM replied. The Local Government Board did not require the medical officer to employ a nurse at the remuneration stated The master was directed by the medical officer to procure a nurse for a sick child whom he found in charge of a pauper inmate. There is no apartment available for the nurse in the workhouse and she has obtained temporary accommodation in a hotel outside. I am making further inquiry in the matter.

The Royal Army Medical Corps.

Sir JOHN TUKE asked the Secretary of State for War whether he would undertake that the report of the committee to be appointed to consider the reconstruction and organisation of the Royal Army Medical Corps would be in the hands of Members before the Army Medical Vote came up for discussion.—Mr. BRODRICK replied: It is impossible for me to give any pledge as to the time that such a committee as that proposed may think it proper to give to its duties.

Deaths from Eating Ice-cream.

Mr. T. R. DEWAR asked the President of the Local Government Board whether he was aware that at an inquest held at Hackney on May 2nd on a boy who died from ptomaine poisoning the coroner remarked that the ice-cream purchased at street barrows had caused [illegible]

[illegible] County Council some time since caused special inquiry to be made into the conditions under which ice-cream was prepared and sold and analyses of samples of this article had from time to time been made by the sanitary authorities of London. He was not, however, able to state whether recent action had been taken on the subject.

TUESDAY, MAY 21ST.

Fees of Medical Men at Irish Inquests.

Mr. FIELD asked the Chief Secretary to the Lord Lieutenant of Ireland whether he could state the Local Government Board scale of fees for medical men attending inquests, whether Dr. Synnott only [illegible]

ROYAL COMMISSION ON ARSENICAL POISONING.

MONDAY, MAY 13TH.

THE Commission held another meeting to-day in the Westminster Palace Hotel.

Mr. HUGH BAIRD, maltster, Glasgow, gave evidence as to the methods of the large maltsters in Scotland. In the case of his own business, he said that they used as fuel only anthracite coal carefully selected for its purity, and while the floor of each kiln was brushed every time that the grain was removed the beams and plates were brushed once a week or oftener if required. They had tried pneumatic malting, but it had not proved successful for brewer's malt. The difficulty they experienced with this system [illegible] the fumes passed through the malt the desired flavour in the beer could not be secured. He could not believe that hot air would have the same effect as hot fumes. Once they had used peat for fuel and the kiln was so impregnated with it that it could not be used again and was in consequence taken down. They had made no change in their methods of malting since the arsenical scare. Their malts had, however, been tested by several chemists and all the samples were found to be free from arsenic except one. The exception was reported upon by one chemist as containing [illegible] fiftieth part of a gr[illegible] chemists reported th[illegible] use l was regularly t[illegible] they had given guara[illegible] quantity of malt wi[illegible] brewers who said th[illegible] ance of the beer. In[illegible] the rule was to use l[illegible] not uncommon. To[illegible] to the fumes of th[illegible]

THE INVESTIGATIONS AT THE GOVERNMENT LABORATORY.

Mr. ROBERT GRANT HOOPER, analyst in the Government Laboratory, was the next witness, and in the course of his examination he said that the question of the presence of arsenic in beer and brewing materials first presented itself officially at the Government laboratory in the beginning of December last, when, in consequence of the discovery of arsenic in [illegible] were made to the [illegible] destruction of the co[illegible] officials with a vie[illegible] had been charged u[illegible] were then forwarded to the Government laboratory and continued to be received for some time. In all 743 samples ha[illegible] tion of the exact original gravity and a qualitative examination of the beer for arsenic would have sufficed to substantiate the claim for draw-back, but with a view of affording information to this commission it was decided to make a more detailed examination in order to obtain some precise knowledge as to the extent to which the beer had been contaminated. In all 143 quantitative determinations of the arsenic in these beers had been made. From the tables of results which he [illegible] the proportion of arsenic found varied [illegible] the 18 cases where sugar obtained from Bostock directly had not been employed, it was stated that the sugar though supplied by another firm had been manufactured by Bostock; in two instances it was found that the arsenic was due to the use of yeast or of yeast pressings from contaminated beer; in one instance the brewer stated that Bostock's sugar was in stock at the time and might have been used by accident; and in the remaining seven cases it was alleged that the arsenical contamination had been traced to the malt used. As regards the period over which the arsenical contamination extended, the oldest sample examined was brewed on May 24th, 1900. Beer at the present time was consumed very shortly after it was produced and consequently whilst there were many samples representing the November production—the date at which the contamination was detected—considerably fewer samples of beer produced at earlier dates were available. It might, however, be noted that in the one May sample [illegible] oxide per gallon was 0·12 grain; the two [illegible] and 0·19 grain respectively; the three [illegible] proportions of arsenic, and in one case [illegible] gallon; in August the average of six samples was 0·45 grain per gallon and one sample contained 0·65 grain; in September the average was slightly lower (0·33 grain), but one sample contained rather more than one grain of arsenious oxide per gallon; in the October beers the average was half a grain per gallon, and of the 21 samples eight contained more than this, two from different breweries containing as much as 1·47 and 1·28 grains per gallon respectively, though it should, perhaps, be pointed out that these were in both cases strong beers. As regards the November samples, the average was 0·42 grain of arsenious oxide per gallon, but there were seven samples in which the contamination exceeded one grain, and in one exceptional case the proportion rose to three grains per gallon. Sugar was used in varying proportions. The highest proportions of sugar to malt and grain used were 50 and 47 per cent. respectively of the total brewing materials, and in neither case did the arsenious oxide exceed 0·60 grain per gallon, but such proportions of sugar were exceptional. The lowest proportions of sugar were less than 1 per cent., and in two out of three of these the arsenic found in the beer was 0·05 grain of arsenious oxide per gallon, though in the third case it amounted to 0·22 grain per gallon. The average proportion of sugar used in the production of these beers was 8 per cent., and in the two beers showing the highest degree of contamination the proportions were 16 and 18 per cent. respectively. In many cases, however, the sugar employed was obtained from more than one firm, and no evidence had been obtained at the Government laboratory that the brewing sugars generally in use during the past year were contaminated with arsenic. Among the samples sent for examination in connexion with the arsenicated beers were three unfermented sugar solutions which were found to contain arsenic equal to 7·99, 8·14, and 2·62 grains of arsenious oxide per gallon. These were priming solutions prepared on Nov. 23rd, 28th, and 24th respectively, the first two from invert sugar and "fluid" sugar respectively, both manufactured by Bostock, and the third from equal quantities of Bostock's invert sugar and of caramel from a maker whose name could not be ascertained. Three samples of invert sugar and one of solid glucose, all stated to be of Bostock's manufacture, were also sent for examination. The invert sugars were found to contain arsenic equal to 2·04, [illegible] had since been examined. The sugars included samples taken at breweries in each of the months from June to November and the total was made up of 64 glucoses and 40 invert and priming sugars. Of these, six samples of glucose and two invert sugars were found to contain arsenic. 14 samples of glucose and six of invert sugar taken from breweries during March of the present year were all found to be free from arsenic. Of 47 samples of malt taken from breweries during the months from June to November of last year all [illegible] necessary to [illegible] of prepared [illegible] in the preparation of beers proved to be arsenicated were first examined. These samples had been received directly from the breweries and in no case was any selenium found to be present. Other arsenicated samples were examined and found to be free from this substance. Finally, a selection of the non-arsenicated sugars forwarded for examination from various parts of the country between June and March last were tested for selenium, but in these samples also no selenium could be detected. When traces of selenious acid were added to glucose or invert sugar the presence of selenium was readily demonstrated. To render the investigation still more thorough samples of imported brew-[illegible] small; it was being quantitatively determined, but it appeared not to exceed one-tenth of a grain per pound in both sugars. All samples of beer supplied under Government contracts which had been submitted for analysis since December last had been examined for arsenic; 46 samples of this class had been received and 45 of them were found to be free from arsenic, whilst one War Office sample contained about one-hundredth of a grain of arsenious oxide per gallon and was so reported.

After the examination of Mr. Hooper the Commission adjourned.

TUESDAY, MAY 21ST.

The Commission held another meeting to-day in the Westminster Palace Hotel, with Lord KELVIN in the chair.

Mr. OTTO HEHNER, Past President of the Society of Public Analysts and Chairman of the London Section of the Society of Chemical Industry, was the only witness examined, and in the course of his evidence he said that he had given considerable attention to the question of arsenic in ingredients of food and in commercial products. He had found that very minute traces of arsenic were contained in almost all samples of malt and beer which he had examined, and that at present it was practically impossible to manufacture beer quite free from arsenic. He had found minute traces of arsenic in some kinds of sugar and in molasses and varying quantities in sodium and potassium carbonates, in caustic soda, sulphurous acid, sulphites, borax, oxide of iron, &c., all articles which were used in food materials Absolute freedom from arsenic was impossible in any brewed beverage; therefore, he said, a maximum limit should be laid down along with an analytical process of determination. In the case of beer and beer ingredients a committee of the Society of Chemical Industry was now engaged in making comparisons of the various tests to detect and approximately to determine minute quantities of arsenic. Under the present system of malting, where the coal fumes came into contact with the grain, the most careful selection of the fuel would not totally exclude contamination. Most of the maltsters now were very careful in regard to their processes, but they were not so prior to the arsenical scare. In his opinion good beer could be made from good materials and yet traces of arsenic might be found in it. In these circumstances he did not see how it was possible to guarantee absolute freedom. He had received samples of what was called pure sulphuric acid, and on analysing them personally he had found traces of arsenic. He had examined two foreign beers and found them perfectly free. In the case of oxide of iron which was met with in the colouring of confectionery, the amount of arsenic was sometimes appalling. The oxide of iron gave a red or plum colour. He had never found arsenic in the samples of bloater-paste sent to him. When he found oxide of iron in the colouring of confectionery he had done what he could to stop its use He had examined golden syrup for glucose for some years past and there had been many prosecutions in this connexion, but with regard to sweets, practically none were made with glucose There had been proceedings against the sellers of jam containing glucose. Reverting to beer, Mr. Hehner said that the largest proportion of arsenic which he had found was 1·05 grains per gallon. Almost every day he found traces of arsenic in beer. Arsenic was a curious poison. He had examined a highly contaminated sample, left it, and then returned to find that all trace of the arsenic had vanished. With regard to sulphuric acid, he suggested that all of it brought into commerce should be de-arsenicated, unless notice to the contrary were given by the vendor.

The Commission will not meet again for some time for the taking of evidence.

BOOKS, ETC., RECEIVED.

- ARNOLD, EDWARD, Bedford-street, Strand, London.
  - The Physiological Action of Drugs: an Introduction to Practical Pharmacology. By M. S. Pembery, M.A., M.D., and C. D. F. Phillips, M.D., LL.D. Price 4*s*. 6*d*.
- BAILLIÈRE, TINDALL, AND COX, Henrietta-street, Strand, London.
  - Dental Surgery. By Henry Sewill, M.R.C.S., &c. Edited by W. J. England, L.D.S. Eng., and J. S. Sewill, L.R.C.P., L.D.S. Eng. Price 10*s* 6*d*
  - Aphorisms, Definitions, Reflections, and Parodoxes, Medical, Surgical, and Dietetic. By A. Rabagliati, M.A., M.D., F.R.C.S, Price 7*s* 6*d*
  - Clinical Lectures on Stricture of the Urethra and Enlargement of the Prostate By P. J. Freyer, M.D., M.D., &c. Price 5*s*.
  - Cerebral Science Studies in Anatomical Psychology. By Wallace Wood, M.D. Price 3*s*. 6*d*.
- BELL AND SONS, London and New York.
  - Memory: an Inductive Study. By F. W. Colegrove, Ph.D., D.D. Price 6*s*.
- BLAKISTON'S SON AND CO., Philadelphia.
  - Select Methods of Food Analysis. By Henry Leffmann, A.M., M.D., and William Beam, A.M., M.D. Price 10*s*.
- BURNS AND OATES, Orchard-street, London.
  - Intemperance: Natural Remedies. By Professor Campbell. Price 1*s*.
- CHATTO AND WINDUS, London.
  - The Church of Humanity. By David Christie Murray. Price 6*s*.
- CHURCHILL, J. AND A., Great Marlborough-street, London.
  - Selected Researches in Pathology. By A. G. Auld, M.D., &c. Price 6*s*.
  - Diseases of the Thyroid Gland and their Surgical Treatment. By James Berry, B.S. Lond. F.R.C.S. Price 14*s*.
  - On Human Nature as an Excuse for Sin. By Maurice C. Hime, LL.D. Price 1*s*.
- FISCHER, GUSTAV, Jena.
  - Allgemeine Pathologie By Dr. Ernst Ziegler. Price 12 marks.
  - Kurzes Lehrbuch der Gynäkologie. By Dr. Ernst Bumm, Dr. Carl Gebhard, Dr. Albert Doederlein, Dr. Alfons von Rosthorn. Edited by Dr. Otto Kustner. Price 6 marks.
  - Studien über den Echinococcus Alveolaris sive Multilocularis. By N Melnikow-Raswedenkow. Price 16 marks.
  - Topographic Atlas of Medico-Surgical Diagnosis. By Dr. R Ponfick. Price 12 marks.
- ICE AND COLD STORAGE PUBLISHING CO., Farringdon-street, London.
  - Public Abattoirs and Cattle-markets. From the German of Oscar Schwarz, M.D. Edited by G. T. Harrap and L. M. Douglas. Price 10*s*. 6*d*.
- KARGER, S., Karlstrasse, Berlin.
  - Atlas der Krankheiten der Nase. By Dr. P. H. Gerber. Price 6 marks.
- LAUPP, H., Tübingen.
  - Verbandtechnik. By Dr. F. Hofmeister. Price 3 marks.
- LEHMANN, J. F., Munchen.
  - Atlas der ausseren Erkrankungen des Auges nebst Grundriss ihrer Pathologie und Therapie. By Prof. O. Haab. Price 10 marks
  - Atlas und Grundriss der Ohrenheilkunde. By Dr. Gustav Brühl. Price 12 marks.
- LEWIS, H. K., Gower-street, London.
  - The Extra Pharmacopœia. By William Martindale. F.L.S., F.C.S., and W. Wynn Westcott, M.B., D.P.H. Tenth edition. Price 10*s*. 6*d*.
- LIPPINCOTT COMPANY, London and Philadelphia.
  - Photographic Atlas of the Diseases of the Skin. By G. H. Fox, A.M., M.D. Parts V. and VI. Price not stated.
- LIVINGSTONE, E. AND S., Edinburgh.
  - Botany. Part I. "Catechism Series." Price 1*s*.
- MARSHALL AND SON, Temple-avenue, London.
  - Advice to Twentieth Century Business Juniors. By Phi. Rho. Chi Price 4*d*.
- MEDICAL PUBLISHING COMPANY, Bartholomew-close, London.
  - Clinical Lectures on the Various Forms of Intra-abdominal Suppuration. By A. H. Tubby, M.S., F.R.C.S. Price 3*s*. 6*d*.
- MOTOR-CAR COMPANY, Shaftesbury-avenue, London.
  - The Motor-car Manual. By R Moffat Ford. Third edition. Price 2*s*. 6*d*.
- OTTO SCHULZE AND CO., Edinburgh.
  - A Study of the Diet of the Labouring Classes in Edinburgh. By D. N. Paton, M.D., J. C. Dunlop, M.D., and E. M. Inglis, L.R.C.P. Edin. Price not stated.
- PENTLAND, YOUNG J., London and Edinburgh.
  - Text-book of Medicine. Edited by George Alexander Gibson, M.D., F.R.C.P., &c. In two vols. Price 25*s*.
- PUTNAM'S SONS, London and New York.
  - Eczema, with an Analysis of 8000 Cases of the Disease. By L. Duncan Bulkley, A.M., M.D. Price 5*s*.
- SAUNDERS AND CO, London and Philadelphia.
  - Atlas of the Nervous System. By Dr. Christfried Jakob. Edited by Edward D. Fisher, M.D. Price 15*s*.
- SCIENTIFIC PRESS, Southampton-street, Strand, London.
  - Burdett's Official Nursing Directory, 1901. By Sir Henry Burdett, K.C.B. Price 3*s*.
- SELL, HENRY, Fleet-street, London.
  - Sell's Dictionary of the World's Press, 1901. Price 7*s*. 6*d*.
- SMITH, ELDER AND CO., Waterloo-place, London.
  - Modern Cremation. By Sir H. Thompson, Bart, F.R.C.S., M.B., &c. Fourth edition. Price 2*s*.
- SPOTTISWOODE AND CO., Gracechurch-street, London.
  - The British Pharmacopœia, 1898, with the Indian and Colonial Addendum, 1900. Price 13*s*. 6*d*.
- STOCK, ELLIOT, Paternoster-row, London.
  - Victoria Vale. Miscellaneous Pages for the Passing Epoch. Price 6*d*.
- SWAN SONNENSCHEIN AND CO., London.
  - The Training of the Body for Games, Athletics, Gymnastics, and other Forms of Exercise, and for Health, Growth, and Development. By F. A Schmidt, M.D., and Eustace H. Miles, M.A. Price 7*s*. 6*d*.
- UNWIN, T. FISHER, Paternoster-square, London.
  - The Letters of Her Mother to Elizabeth. Price 2*s*.
- WILLIAMS AND NORGATE, Henrietta-street, Covent-garden, London.
  - Beiträge zur Pathologie des Knochenwachsthums. By Dr. W. Stoeltzner and Dr. B. Salge. Price 12*s*.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

BAMFORD, T., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for Uttoxeter.

BOSTOCK, A. S., M.R.C.S., has been re-appointed Medical Officer of Health, Westhampnett Rural Sanitary District.

CAMPBELL, [illegible] has been appointed Medical Superint[illegible] Asylum, Caterham, Surrey.

EMRYS-JONES, A., M.D [illegible], has been appointed Honorary Consulting Ophthalmic Surgeon to the Bolton Infirmary

[illegible]

HUNTER, WILLIAM, M D. Edin, F R.C P. Lond, has been appointed Examiner in Medicine (Systematic and Clinical) in the University of Glasgow

KELLY, C., M D Lond, L R.C P., M R.C S, has been re-appointed [illegible]

[illegible] Officer by the Northampton Rural District Council

PRINGLE, A M N, M.B., C M Edin, D P H Camb., has been appointed [illegible]

[illegible] ppointed [illegible] Glasgow. [illegible] ppointed [illegible] and Dis[illegible]

[illegible] ppointed [illegible] ardians [illegible] ppointed [illegible] l Officer [illegible] plecross

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRKENHEAD UNION—Assistant Medical Officer Salary £120 per annum, with board, washing, and apartments

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES, John Bright-street, Birmingham.—Clinical Assistant.

BIRMINGHAM [illegible] unmarried. [illegible] annum for [illegible]

BIR[illegible] Dispensary, [illegible] Branch (Sands Cox Trust)—Medical Officer Salary according to the number of members with a guaranteed minimum of £250 per annum and residence (unfurnished)

BRADFORD POOR LAW UNION—Junior Resident Assistant Medical Officer. Salary £100 with [illegible]

BRI[illegible] Surgeon.

BUR[illegible] 50 for the [illegible] rooms, coal, and gas.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn road.—Three Registrars and One Assistant Anæsthetist.

CITY OF LEEDS—Assistant Medical Officer of Health and Chief Inspector of Nuisances Salary £300 per annum.

CITY POORHOUSE AND HOSPITAL, Parliamentary road, Glasgow—Assistant Medical Officer. Salary £90 per annum, with board and apartments, &c.

COUNTY ASYLUM, Lancaster—Assistant Medical Officer, unmarried Salary £150 increasing to £250, with apartments board washing, and attendance.

[illegible] Health [illegible] House [illegible] board, and washing [illegible] furnished apartments,

DORSET COUNTY HOSPITAL, Dorchester—House Surgeon, unmarried Salary £100 with [illegible]

DUMF[illegible] Assistant House [illegible]

GLAMO[illegible] washing [illegible] Medical Officer

GOLD[illegible] Salary £400 a [illegible]

GRAHA[illegible] South Africa—[illegible] free passage. [illegible] with board and [illegible]

HULL ROYAL INFIRMARY—Junior Assistant House Surgeon. Salary £50, with board and lodging.

INFECTIOUS DISEASES HOSPITALS, City of Leeds.—Assistant Resident Medical Officer Salary £130 a year, increasing to £150, with board, lodging, and washing

[illegible] Medical Officer Also Assistant Resident Medical Officer, each for six months. Salary at the rate of £50 per annum, with board, residence, and washing

NORTH WESTERN FEVER HOSPITAL, Lawn road, Hampstead.—A Locum Tenens. Salary at the rate of £160 per annum, with board, lodging, and washing

NOTTINGHAM GENERAL DISPENSARY—Senior Resident Surgeon. Salary £200 per annum, increasing by £15 every year. Also two Assistant Resident Surgeons Salaries £160 per annum each, increasing by £10 every year, furnished apartments, attendance, light, and fuel. Unmarried

PARISH OF ST LEONARD, SHOREDITCH—Second Assistant Medical Officer Salary £100 per annum, with rations, washing, and furnished apartments at the Infirmary

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon for six months. Salary at the rate of £60 per annum, with board, &c.

ROYAL BERKS HOSPITAL.—House Surgeon. Salary £60 per annum, with board, lodging, and washing Also Assistant House Surgeon. Salary £50 per annum with board, lodging, and washing

ROYAL CORNWALL INFIRMARY—House Surgeon, unmarried Salary £100 increasing by £10 a year, with board and apartments.

ROYAL DEVON AND EXETER HOSPITAL Exeter—Junior Assistant House Surgeon for six months Salary at the rate of £50 per annum, with board, lodging, and washing

ROY[illegible]

ST [illegible]

STO[illegible]

THE [illegible]

WE[illegible]

WE[illegible] use Surgeon Salary [illegible]

WE[illegible] Y.—House Physician [illegible]

WE[illegible]—House Surgeon for six months

WESTON SUPER MARE HOSPITAL AND DISPENSARY—Medical Officer. Salary £100 per annum, with board, lodging, and washing

WINDSOR AND ETON ROYAL DISPENSARY AND INFIRMARY—House Surgeon, unmarried. Salary £110 per annum, with residence, board, and attendance.

Births, Marriages, and Deaths.

BIRTHS.

GERRARD—On May 3rd, at Pembroke-avenue, Hove, the wife of Major Gerrard, M B, R A.M C, of a son.

LLEWELLYN—On May 16th, at Spondon, Derby, the wife of John Llewellyn, M.R C S, of a son.

PERRY—On May 14th at the Hutt, Petone, Wellington, New Zealand, the wife of W. D Perry, L.R.C P Lond., M R C.S, of a son.

MARRIAGE.

KENDALL—IZARD—On April 30th, at All Saints' Church, Blackheath, by the Rev R. S Kendall vicar of Luxulyon, Cornwall, uncle of the bridegroom, and the Rev A Izard, rector of Slindon, Sussex, Nicholas Fletcher Kendall, M R C S Eng, L.R C P Lond., of Chiddingfold, to Kathleen Addison Izard, eldest daughter of W. Izard, Esq, of the Paragon, Blackheath

DEATHS.

BIRTWHISTLE.—May 15th, at Budleigh Salterton, William Birtwhistle, M R.C S, second son of the late Rev Canon Birtwhistle, in his 66th year.

FINUCANE.—At 26, Nightingale-road, Southsea, Hants, on the 15th of May, Daniel J Finucane, M.D, R N., Deputy Inspector-General of Hospitals and Fleets aged 73 years

FYFFE.—On May 17th, at 2, Rodney place, Clifton, William Johnstone Fyffe, M.D, Deputy Surgeon-General (retired), aged 75 years

N.B.—A fee of 5s. is charged for the insertion of Notices of Births Marriages, and Deaths

Notes, Short Comments, and Answers to Correspondents.

THE GENERAL MEDICAL COUNCIL AND UNREGISTERED DENTISTS.

To the Editors of The Lancet.

Sirs,—Will you permit an old contributor whose first article in The Lancet dates back to 1856 to enter a protest against the action of the General Medical Council in reference to unregistered dentists. Some two or three years ago I received from the Registrar of the General Medical Council a most impertinent notice telling me that if I employed an unregistered assistant I should be deemed "guilty of infamous conduct." I took no notice of this, as in New Zealand we have no assistants of any kind. But last year I received a similar notification about unregistered dentists. By this I was informed that if I administered an anæsthetic for an unregistered dentist I should be guilty of "infamous conduct in a professional respect." This was too much for my patience. The great majority of dentists here are not on the English Register, and apart from the outrageous misuse of the English language in calling the administration of an anæsthetic while another man is extracting teeth "infamous conduct," I was not going to submit to be dictated to by a council of trades unionists as to how I should carry on my practice. So I sent in my resignation and requested the Registrar to strike my name off the Register. This has been done. I was a fully qualified practitioner four years before the Act of 1858 and I am a fully-qualified practitioner now. The registration in England gave me no rights that I did not previously possess and its absence deprives me of none, but I have had the pleasure of cutting myself adrift from the very useless and incompetent corporation called the General Medical Council whose actions for years past I have looked on with contempt.

I am, Sirs, yours faithfully,

R. H. Bakewell, M.D. St. And., *ad eundem* N.Z.,
M.R.C.S. Eng., L.M., L.S.A.

Auckland, N Z., March 20th, 1901.

⁂ Dr. Bakewell does not appreciate the good work that has been done and is being done by the General Medical Council in preventing all sorts of unqualified practice. The regulation of the Council making it unprofessional for a qualified medical man to assist an unqualified dentist is one that meets with universal approval in the mother country, but the situation in many colonies is a different one.—Ed L.

BETA-EUCAINE.

To the Editors of The Lancet.

Sirs,—Could you or any of your correspondents inform me if beta eucaine is always a satisfactory local anæsthetic? I have just had occasion to use it in a case of extraction of finger nail. I injected about 30 minims of a 5 per cent. solution around the nail bed. The anæsthesia was all that could be desired, but there resulted around the tip of the finger, the day after the operation, swelling and an unhealthy blueness of the skin, and in some parts blisters were raised containing clear fluid The finger presented such an unhealthy appearance that the patient feared blood-poisoning; and is at present very uneasy as to its ultimate progress. This is the third day since the operation, and the finger still looks unhealthy and considerably swollen. The preparation of eucaine was freshly prepared by a chemist, and all instruments were sterilised immediately before use, so that I am quite satisfied that this unlooked-for result is due entirely to the eucaine. I shall be obliged if anyone can throw any light on the matter.

I am, Sirs, yours faithfully,

Evesham, May 21st, 1901. L. F. Leslie.

BENZ CARS.

To the Editors of The Lancet.

Sirs,—If your correspondent "Cornwall" in The Lancet of May 18th, p 1442, who is thinking of buying a Benz car, buys one with a Crypto hill-climbing gear attached he will be able to get up any hill he will meet with The ordinary two-speed car without this is not worth having in a hilly country. I have had a Benz car for the last two years and it has been occasionally available for use, perhaps half a dozen times during the last 12 months, on which occasions it has generally hindered a good deal more time than it has saved. And during the same period I have spent about £70 on it, and am still running up a bill Nevertheless, I have still hopes of making a good car of it and of using it this summer. But if your correspondent thinks he is going to close his stables and save money by keeping a motor he is about to buy experience. I always advise prospective purchasers, "Get your bookseller to order you twelve-months' back numbers of the *Autocar*. Read them all through, advertisements and all. Then you will have some idea of the car most likely to suit you. Have nothing to do with pneumatic tyres or a pump. Finally, having selected your car, if, when you have paid for it and got it home you set fire *to it you will* know exactly what it has cost you." Before buying a car at all I would recommend anyone to read carefully a short article in the *Field* of May 3rd on the Diesel engine. If this engine does anything approaching what is claimed for it it will revolutionise the motor industry, though it will be certain to meet with a great deal of organised and interested opposition to start with. Remember, there are many hundreds of thousands of pounds invested in the output of existing engines and components.

I am, Sirs, yours faithfully,

Stratford-on-Avon, May 18th, 1901. Harry Lupton.

To the Editors of The Lancet.

Sirs,—In answer to the inquiry of your correspondent "Cornwall" *re* Benz motor-cars I can confidently recommend them in a hilly district. With surface of main roads good and by-roads bad I have used one for the last three years with entire success and a great saving over horseflesh. They seldom, if properly cared for, want any repairs and cost about ½*d.* per mile to run. If "Cornwall" will write to me direct I shall be glad to give him the fullest particulars.

I am, Sirs, yours faithfully,

T. Prichard Roberts, L.R.C.P. Irel., &c.

St. Albans, May 20th, 1901.

To the Editors of The Lancet.

Sirs,—In answer to your correspondent "Cornwall" with regard to the above I can inform him that I have driven a Benz car for two and a half years and have done all my work in it. I have been over 15,000 miles and the upkeep has been about £40 to £50 a year. If the car is properly treated and looked after it is most reliable and quicker and cheaper than two horses. The new car is much stronger and better than the 1898 pattern. Messrs. Hewetson are most courteous and obliging, prompt in sending requisites, and moderate in price—very serious points if the parts had to be sent for from France and charged accordingly. One hears a lot of abuse of the Benz, but if a man cannot succeed with this car he could not with any. It is most simple, long-suffering, and reliable, which after all are the chief requisites for medical work Of course it must be learnt, like anything else, and the only way to learn it is to drive it. My car is practically as good as new for work, though a bit noisy from wear.

I am, Sirs, yours faithfully,

May 20th, 1901. A. Charpentier.

P.S.—With the Crypto gear it will go up any hill.

To the Editors of The Lancet.

Sirs,—Your correspondent "Cornwall," in The Lancet of May 18th, p. 1442, does not state which style of Benz car he thinks of using. The Benz firm is old established, and makes cars of three horse-power up to 50. Probably the small three horse-power car is referred to. Having owned one of these and used it in my professional work for a year, and covered some 2000 miles in that time, I may say that they are certainly reliable but rather slow cars; they are also now considered by up-to-date automobilists as old-fashioned. Their great drawback, in my opinion, is the position of the engine—behind—which renders it difficult to make necessary adjustments, &c. These cars will go up gradients of one in four slowly if the surface is good and their solid tyres would stand the rough by-roads which, as I know from experience, are in Cornwall very loose and bad in the summer. The up-keep, of course, depends on the distance run in a given time the care taken in driving, and the attention given to the car. In Cornwall repairs and renewals would frequently be needed. I would strongly advise a car of at least six horse-power with solid tyres if expense is to be considered. The three horse-power cars are very slow and unsatisfactory to drive on muddy roads in winter. I shall be pleased to give your correspondent any further information I can.

I am, Sirs, yours faithfully,

May 22nd, 1901. C. E. Abbott, M.R.C.S. Eng., &c.

Inquirens.—"Health in Africa," by Dr. D. Kerr Cross; pp. 222 (London: James Nisbet and Co, 21, Berners-street). "Management of Children in India," by Dr. Edward A. Birch; pp. 476 (London: W. Thacker and Co, Creed-lane) "Guide to Health in Africa," by Surgeon-Major Thomas Heazle Parke; pp. 175 (London: Sampson Low, Marston, and Co., Fetter-lane). "Maladies du Soldat aux Pays Chauds," pp. 181 (Paris: J. B. Baillière et Fils). "Die Krankheiten der Warmen Lander," by Dr. B. Scheube; pp. 661 (Jena: Gustav Fischer). "How to Live in Tropical Africa," by Dr. J. Murray, pp. 252 (London: George Philip and Son, 32, Fleet-street). "Guide Pratique d'Hygiène et de Médecine Coloniale," par Dr. Sadoul, pp 202 (Paris: Augustin Challamel) "Cholera in Indian Cantonments," by E H. Hankin, M.A. (Cambridge: Deighton, Bell, and Co.). "Medical Hints for Hot Climates," by Charles Heaton, M.D. (London: W. Thacker and Co.). "Tropical Diseases," by Patrick Manson, M.D. (London: Cassell and Co.) "Lectures on the Malarial Fevers," by W. S. Thayer, M D. (London: H. Kimpton). "Thérapeutique du Paludisme," par F. Burot et M. A. Legrand (Paris: J. B. Baillière). "Maladies des Pays Chauds et Tropicaux," par Dr. J. Brault (Paris J. B. Baillière). "Malaria," by Professor A. Celli; translated by J. J. Eyre, M.R.C.P., L.R.C.S. Irel. (London: Longmans). "Mosquitoes and Malaria," by C. Christy, M.B. (London: Sampson Low, Marston, and Co.). "Blackwater Fever," by W. H. Crosse (London: John Bale, Sons, and Danielsson, 83-89, Great Titchfield-street).

X Y.Z—C should attend the case, the unregistered man having severed his connexion with it. If the cause of death is clear he can *give the certificate*, but about *this he must* be guided by all the circumstances.

A Regular Reader of Your Paper.—The advertisement is an undesirable one, but we do not think, in all the circumstances, that *it is* worth noticing.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 23rd, 1901.

Date	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain fall	Solar Radia in Vacuo	Maximum Temp Shade	Min. Temp	Wet Bulb	Dry Bulb	Remarks at 8.30 A.M.
May 17	30·20	E.	...	74	56	42	45	48	Overcast
" 18	30·24	E.	...	104	64	43	46	51	Cloudy
" 19	30·20	S.W.	...	106	70	43	53	60	Hazy
" 20	30·26	E.	...	108	68	49	51	56	Overcast
" 21	30·36	E	...	113	67	47	50	54	Cloudy
" 22	30·30	E.	...	113	69	50	53	60	Fine
" 23	30·31	N.E	..	114	68	49	53	60	Fine

Medical Diary for the ensuing Week.

OPERATIONS.

METROP

MONDAY (27th).—London (Thomas's (3.30 P.M.), St. Middlesex (1.30 P.M.), Samaritan (Gynæcologic (2 P.M.), Royal Orthopæ Gt. Northern Central (2.

[illegible]

2.30 P.M.).

[illegible]

London Throat (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

FRIDAY (31st).—BRITISH BALNEOLOGICAL [illegible] SOCIETY (20, Hanover square [illegible] followed by General Meeting [illegible] 9 P.M. Annual Conversazion [illegible] Inadequacy. 8.30 P.M. Annua. [illegible] street, W.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

WEDNESDAY (29th).—HOSPITAL FOR CONSUMPTION AND DISEASES [illegible] Dr Maguire: Bloodletting

[illegible] POST-GRADUATE COURSE (West [illegible] Edwards: The Treatment of Gleet.

CHARING CROSS HOSPITAL.—4 P.M. Mr. Waterhouse: Surgical Cases (Post-Graduate Course.)

During the week marked copies of the following newspapers have been received:—*Northampton Reporter, Western Press, Hants County News, Cardiff Mail, Manchester Guardian, Bristol Mercury, Express Star, Dundee Advertiser, Leeds Mercury, Bolton Chronicle, Birmingham Gazette, South Wales Daily News, Hereford Journal, Rochdale Times, Worcester Chronicle, Sanitary Record, Liverpool Daily Post* [illegible] *Yorkshire Post,* [illegible] *Herald, Times, Glossop T*[illegible]*rbyshire Times, Drapers' I*[illegible]*nt, Oban* [illegible] *Express, Church Bells, Acton Gazette Sheffield Daily Telegraph, Gloucester Journal, Preston Herald Grantham Journal, Lincolnshire Chronicle, Norwich Press, Bury Guardian, Exeter Flying Post, East Anglian Times, Dorchester Telegram, Yeovil Advertiser, Taunton Mail, Penrith Observer, Scarborough Post, Public Health Engineer, Bristol Times, Cycling, Health, Weekly Register, Midland Daily Telegraph, Huddersfield Examiner, Cigarette World, Mining Journal, Lancaster Guardian, Reading Mercury, City Press, Surrey Advertiser, Ulster Echo, Flintshire Observer, Surrey Mirror, South African Weekly News, Surrey Times, Surrey Comet, Hertfordshire Mercury, Local Government Journal, Elgin Courant, Musical News, Ayrshire Post, South Durham Mercury, Ilkeston Pioneer, Cambria Leader, &c., &c.*

EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used

MANAGER'S NOTICES.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them! Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, MR CHARLES GOOD, THE LANCET Offices, 423, Strand, London, W.C.

Communications, Letters, &c., have been received from—

A.—Messrs. Armour and Co., Lond.; Messrs. Allen and Hanburys. Lond.; Apothecaries' Society of London, Secretary of; Mr. C. E. Abbott, Cheltenham.

B.—Dr. J. W. Black, Edinburgh; Dr. E Farquhar Buzzard, Lond.; Dr. R. Adams Browis, Dursley; T. B. Browne, Ltd., Lond., Messrs. Baillière, Tindall, and Cox, Lond., Messrs. Brady and Martin, Newcastle-on-Tyne, Mr. T. Bryant, Lond.; Messrs. Bates, Hendy, and Co., Lond.; Surgeon A. O Bobardt, R.N., Sydney Burton-on-Trent Infirmary, Secretary of, Messrs. J. Bale, Sons, and Danielsson, Lond. Mr. D. Berry, Cambridge; Messrs C. Baker and Sons, Lond.; Mr. S. H. Brown, Allerton; Messrs Boulton and Paul, Norwich· Mr. F. Boehm, Lond; *Black and White*, Editor of.

C.—Mr J. Jackson Clarke, Lond.; Messrs. Crossley and Co., Lond.; Cortland Wagon Co., Lond.; Mr. Brudenell Carter, Lond.; Mr. W. R E. Coles, Lond.; Mr. J. Cropper, Chepstow; Mr. J. Crawford, Tredegar; Mr. A. E. Clarke, Stafford.

D.—Lieutenant-Colonel J. D. Day, Lond.; Dr. Dabbs, Shanklin; Dumfries Royal Infirmary, Treasurer of; Messrs. Dixon and Hunting, Lond; F. A. Davis Co, Philadelphia; Downing College, Cambridge, The Master of, Mr. Alexander Duke, Cheltenham.

E.—Messrs Eaton and Bulfield, Lancaster E H.

F.—Dr. W. Soltau Fenwick, Lond.; Mr. J. H. Fardon, Birkenhead; F. L L.

G.—General Life Assurance Co., Lond, Dr. E B. Gray, Oxford; Messrs. Gale and Co., Lond.; Dr. W. Gordon, Exeter; Dr. R. F Gill, Lond.; Dr. A. Greenhalgh, Accrington, Mr. J. Good, Stockport.

H.—Mr R Howarth, Wolverhampton, Mr G. H. Homes, Lond.; Mr. S. H. Habershon, Lond.; Messrs. Hirschfeld Bros., Lond.; Mrs. Hartley, Dublin, Dr. W. Hunter, Lond.

J.—J. K.

K.—Mr. Skene Keith, Lond.; Kent and Canterbury Hospital, Canterbury, Secretary of, Mr. C. B. Keetley, Lond.

L.—Messrs. Linklater and Co., Lond.; Lahinch Golf Links, Manager of.

M.—Mr. W. Martindale, Lond.; Messrs. Macdonald Bros., Lond., Messrs. F. L. May and Co., Lond.; Mr. C. P. Mathew, Teignmouth; Maltine Manufacturing Co., Lond., Mendip Hills Sanatorium, Wells; Memorial Hospital, Jarrow on-Tyne; Mr. C. Medwin, Christchurch, New Zealand; Major Morris, R.A.M.C., Lond., Dr. Brooker Mills, Philadelphia, Medical Defence Union, Secretary of; Mr. F. C. Melhado, Lond.; Mr. G. H. Metcalfe, Clare.

N.—Dr. Arthur Newsholme, Brighton; Mr. H. Needes, Lond.

O.—Dr. J. Oliver, Lond.

P.—Mr. S. E. Peebles, Bendigo; Messrs. C. Pool and Co., Lond, Mr Y. J. Pentland, Edinburgh; G. B. Putnam's Sons, New York; Plympton House, South Devon, Proprietor of, Mr. F. E. Potter Lond.; *Public Health*, New York, Editor of, Dr. H. Peck, Chesterfield Messrs. Philip and Dobbie, Stirling.

R.—Royal Devon Exeter Hospital, Secretary of Mr. E. J. Reid, Lond., Royal Albert Hospital, Devonport, Secretary of; Mr. R. Redpath, Newcastle-on Tyne Messrs Reynell and Son, Lond. R F. S., Mr. R. F. Reynolds, Ilkley; Dr. R. Rutherford, Glasgow.

S.—Messrs. Street and Co., Lond., Messrs. Spiers and Pond, Lond; South Australian Government Bonded Depôt Lond., Secretary of. Dr. E. J. Sidebotham, Manchester, Messrs. W. H. Smith and Son, Birmingham, Stockport Infirmary, Secretary of, Messrs G. Street and Co., Lond.; Scholastic, Clerical, &c., Association, Lond.; Stockport and District Provident Dispensary, Secretary of, Dr. Scarth, Las Palmas; Mr. H. Smith, Lond., Dr. G. E. Shuttleworth, Richmond.

T.—Mr. H. E. Taaffe, Londonderry.

U.—University College Bristol, Secretary of.

V.—Vinolia Co., Lond.

W.—Mr. T Wilson, Burntisland Messrs. Wright, Dain, and Co., Birmingham; Weston-super-Mare Hospital, Secretary of Western General Dispensary, Lond., Hon Secretary of; Mr. S. Wand, Leicester; Mr. C. Worth, Lond.; Mr Vincent Wood, Lond.; Mr. Oliver Williams, Lond.; Messrs. W. Wood and Co., New York; Messrs. R. F White and Son, Lond.; Dr. Christy Wilson, Doncaster; Dr. Tucker Wise, Montreux; Dr. Woodward, Worcester.

X.—X. Y. Z.

Letters, each with enclosure, are also acknowledged from—

A.—Mr. K. M Appiah, Mysore, India; A., Tilehill; A. P. H.; A. V. W., Messrs. E. Austin and Son, Clifton.

B.—Mr. J. Bullock, Lond.; Mr. T. B. Brooke, West Runton; Messrs. Buchner, Schacht, and Co., Lond.; Bristol General Hospital, Secretary of; Dr. B.; Mr. T. H. Brocklehurst, Steeple Claydon; Dr. W. Burns, Ayr; Miss E P. Buller, Southampton; Major C. A. J. Burton, Eastbourne, Bristol Royal Infirmary, Secretary of, Borough of Aberystwyth, Accountant of; Mrs. B., Lond.

C.—Dr. C. Cochrane, Sheffield; Messrs. Callard and Co., Lond.; Miss E. E. Cuffe, Woodhall Spa, Messrs. J. and A. Churchill, Lond., *Craven Herald*, Skipton, Coppice Nottingham, Secretary of; C. H., College of Physicians, Chicago, U.S.A.

E.—Mr. S. J. D. Esser, Lond.; E. C. S. E W. S.; Mr. R. B. Edwards, Lond.

F.—Mr. F. E. Fremantle, Lond.; Mr. E. J Foulston, Liverpool; F. B. N., Flower House, Catford, Medical Superintendent of; Mr. J. J. Fanning, Birr, Ireland.

G.—Mr. H. Greenwood, Brighton; Messrs. Grindlay and Co., Lond.; Messrs. Gilyard Bros., Bradford; G. K. M., G. L.

H.—Mr. A. Howden, Prestonkirk; Hamilton Association, Lond., Mr. T. A. Hawkesworth, Thrapston; Dr. F. S. T. Hutchison Bedlinog; H. O.; Hospital for Women and Children, Leeds, Secretary of; Messrs. J. Haddon and Co., Lond.; H. E. G.

J.—Mr. W. H Jessop, Lond.; Jessop Hospital for Women, Sheffield, Secretary of; J. K. F.; Dr. C. H. L. Johnston, St. John, Canada, J. M. C.; J. M. B.; J. M. H., J. H.; J. P. L., Mrs. Johnstone, Stirling; J. T. L; J. R. G., J. M F. J. T B.

K.—Mr. N. F Kendall, Chiddingfold, Lieutenant-Colonel Knaggs, Cheltenham Messrs. Knapp, Drewitt, and Sons, Kingston.

L.—Mr. S. Lee, Exeter; Messrs. Lee and Martin, Birmingham; Mr. W. W. Leigh, Treharris; Locum Tenens, Leicester; Dr. J. S. Lyttle, Cilfynydd.

M.—Mr. S. B Mason, Pontypool; Messrs. Moore and Co, Lond.; Dr. A. Marriott, Aldeburgh; Medicus, Richmond; M.S M.D.; Mr. M. Mitchell, Tullaroan, Ireland; M.D., Painswick; Manchester Medical Agency; M. J. O. B.; Marshall, Mary Tavy.

N.—Rev. J. B. Nicholson, Powick; Northern Medical Association, Glasgow; National Provident Institution, Lond., Secretary of; N. C.

P.—Mr. E. Prickett, Lond.; Messrs. Potter and Sacker, Lond.

R.—Dr. E L. M. Rusby, Lond.; R. N. C.; Royal Cornwall Infirmary, Truro, Secretary of; Roxburgh District Asylum, Melrose, Secretary of; R. M. H. W.; R. A. D.

S.—Dr. M. C. Sykes, Barnsley; St. John Ambulance Association, Lond., Secretary of, Colonel W. F. Stevenson, R.A.M.C., Netley; Surgeon, Watford; Dr. G. C. Simmons, Sacramento, U.S.A.; Sanitas Co, Lond.; Dr. C. S. Storrs, Hertford, Mr. A. Shearer, Newtown; Scarborough Hospital, Secretary of.

T.—Dr. J. H. Tonking, Camborne; Mr. J. W. Thompson, Liverpool; Mr. R. Trimble, West Bromwich; Towcester Union, Clerk of; Tottenham Hospital, Clerk of; Dr. F. T. Talbot, Stockton-on-Tees.

V.—Victoria Hospital for Sick Children, Chelsea, Secretary of.

W.—Dr. A. T. Wise, Hansell; Mr. W. H. Wykes, Newmarket; W. S. W.; W. L. B. D.; W. D.; Mr. J. H. Wallis, Babbacombe; Mr. T. E Williams, Talgarth; Surgeon W. G. Westcott, Lond.; West Bromwich District Hospital, Secretary of; W. 60, Leeds; Mr. G. S. Ward, Amwell; Wills, Ltd., Lond.

Y.—Dr. G. P. Yule, Edinburgh; Yorkshire College, Leeds, Secretary of.

Z.—Z., Westgate on-Sea.

EVERY FRIDAY. PRICE SEVENPENCE.

THE LANCET.

SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.			
One Year	£1	12	6
Six Months	0	16	3
Three Months	0	8	2

TO THE COLONIES AND ABROAD.			
One Year	£1	14	8
Six Months	0	17	4
Three Months	0	8	8

Subscriptions (which may commence at any time) are payable in advance

ADVERTISING.

Books and Publications ...	Seven Lines and under	£0	5	0
Official and General Announcements	Ditto	0	5	0
Trade and Miscellaneous Advertisements	Ditto	0	4	6
	Every additional Line	0	0	6

Quarter Page, £1 10s. Half a Page, £2 15s An Entire Page, £5 5s.

Terms for Position Pages and Serial Insertions on application

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to [illegible] THE LANCET

Cheques and Post Office Orders (crossed "London and Westminste [illegible] be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom [illegible] Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs W. H Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

[illegible] for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris

Agent [illegible]lain.

A Clinical Lecture

ON

ACROPARÆSTHESIA, ERYTHROMELALGIA, SCLERODACTYLIA, AND OTHER ANGIO-NEUROTIC DISTURBANCES:

WITH AN ATTEMPTED CLASSIFICATION OF ANGIO-NEUROTIC DISORDERS OF THE EXTREMITIES.

Delivered at the West End Hospital for Diseases of the Nervous System, Welbeck-street, W.,

BY THOMAS D. SAVILL, M.D. LOND.,

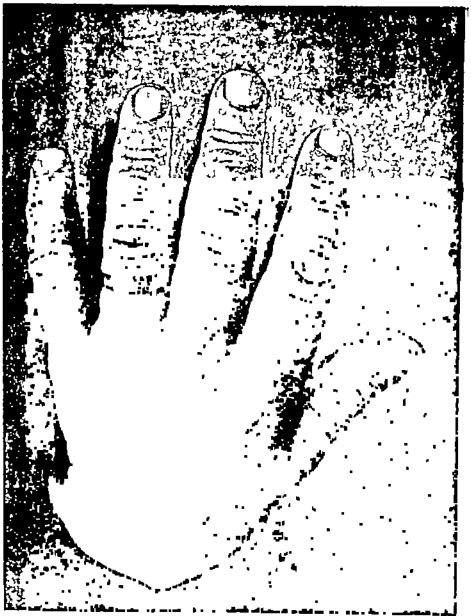
PHYSICIAN TO THE HOSPITAL.

GENTLEMEN,—"Acroparæsthesia"[1] is really a symptom. It consists of attacks of various sensory disturbances of the hands and feet, such as tingling or numbness, "pins and needles," usually without objective change, though if the patient be a close observer he may sometimes tell you that at the time of the attack the hands were unduly pale or unduly red and sometimes that there was swelling. It may occur alone, but it is quite as often associated with some other morbid condition, such as general paralysis, tabes dorsalis, or gastric disorder. "Erythromelalgia" may be regarded as a disease and the term was, I believe, first applied to it by Weir-Mitchell. The main feature consists of a painful redness with swelling or congestion of the extremities, associated with pain and the other symptoms just mentioned. "Sclerodactylia" is a term that has been applied to a localised form of scleroderma affecting the fingers and toes, and sometimes spreading to the wrists, the forearms, the ankles, and the legs.

The symptoms which these words indicate belong undoubtedly to the same category as those of Raynaud's disease. Possibly they represent an early phase, or a more chronic form, of that disorder. But the precise relation that they bear to it will be one of the questions which we shall have to investigate to-day. Acroparæsthesia and erythromelalgia are evidently very closely related, and these two conditions appear to be less uncommon than is usually believed, for during the past two years I have met with some 35 patients presenting these phenomena in a definite or marked degree. The first patient whom I intend to show you to-day is certainly one of the worst, and at the same time one of the most instructive, cases of *erythromelalgia* that I have met with.

CASE 1.—A woman, aged 52 years, first came to the out-patient department on Feb. 2nd, 1897, complaining of a painful redness and swelling of both hands. These disagreeable sensations in the hands had come on quite gradually and had lasted on and off for 12 months before I saw her. Both hands were almost equally involved, the right being a trifle the worse. The redness, swelling, and pain, which, she said, when it first started resembled "pins and needles," came on in attacks chiefly at night. Occasionally in the daytime the hands became worse, when, for instance, she let them hang down or put them into very hot or very cold water, and sometimes the attacks came on spontaneously; but at night the attacks gradually became so bad that she was unable to sleep and sometimes even to move or to get out of bed—so bad, indeed, that she had to leave off going to bed at night. A curious fact was that if she lay down in the daytime and tried to get some sleep an attack would come on. Assuming the horizontal position would make the hands worse, but if, wearied by a succession of sleepless nights, she dropped off to sleep, she was immediately awakened by the agonising pain in the hands, the wrists, and the forearms, for the redness and swelling gradually spread upwards. The hands had become almost useless owing to the stiffness and swelling, and latterly, even in between the attacks, the hands and forearms had become permanently swollen. There was never any margin to the redness; it faded off gradually to the healthy skin. The dynamometer on admission gave right 17, left 12, the normal with this instrument being about 60. This deficiency was not due to paralysis, but to stiffness and pain on movement. I show you a photograph (Fig. 1) of her hands at that time. They were both about equally crimson and congested and felt doughy, but did not pit on pressure. She could not put on gloves which she had worn six months previously. The enlargement was mainly due to congestion, because if they were held above the head for five or 10 minutes they became reduced in size and of a more natural colour. There was no history of any injury to the nerves, and there was no swelling or other abnormality to be discovered in the nerves of the extremities. The electrical reactions of the muscles and nerves of the arms were apparently normal. The patient is a married woman with three children, and she has no occupation, but her domestic duties include a great deal of washing. She gives no history of any illness, but she has suffered a good deal on and off from indigestion for some years. The change of life occurred at the age of 47 years. In early life she was much troubled with chilblains; and she has always been a "nervous" person, the slightest noise making her start and tremble, and latterly she has exhibited many of the symptoms of neurasthenia. In May, 1897, she had a curious attack of "loss of speech accompanied by twitching of the hands which lasted an hour or so." In the earlier days of her attendance at the hospital the hands were the seat of a constant, fine, rhythmical, nervous tremor, but now this is only observable when she is at all excited. Steady improvement was made under the administration of a mixture containing bromide of ammonium, and subsequently sulphate of magnesia, carbonate of magnesia, compound infusion of gentian, nux vomica, and belladonna were added. With this and the use of the constant current for seven months the attacks became milder and the hands less painful. Much of the improvement, I believe, is attributable to the galvanism. The negative pole was placed at the bottom of a jug of warm water and the positive over the nape of the neck. Each hand and arm was then inserted in the water, and as

FIG. 1.



Erythromelalgia. Reproduction of a photograph of the hand of a female patient (Case 1), aged 52 years, showing puffiness and swelling. The crimson colour cannot of course be shown. The skin was tender and had a doughy feel on pressure, but there was no pitting.

---

[1] The term "acroparæsthesia" was first suggested, I believe, by Schultze (Deutsche Zeitschrift für Nervenheilkunde, 1893).

strong a current as she could tolerate was administered for from 20 to 30 minutes three or four times a week. During the three years the patient has been attending the hospital she has very often had a mixture of gentian, alkalies, and other remedies directed to the improvement of the digestion. On one occasion after she had become worse owing to her irregular attendance I administered large doses of chloride of calcium (20 grains, gradually increased to 30 grains thrice daily after meals), and she improved rapidly under this treatment. In one way and another she has improved so much that she has ceased to attend regularly.

These are the main features of the case excepting a most interesting attack which she had in October, 1897, when she was laid up in bed at home for seven weeks. The hands became very red and this and the swelling spread rapidly up the arms, the neck, and even to the face. Purple or crimson acutely painful blotches appeared on the arms, the trunk, and the legs, and these were described by the medical man who attended her for this illness and who kindly sent me particulars (for I did not see her myself), as "exactly resembling erythema nodosum."[2] When she resumed her attendances at the hospital the hands were still too stiff and painful to hold anything and she was unable to dress herself. The pulse has generally been somewhat rapid and the radial arteries certainly seem to be a trifle thick, but there is no definite arterial lesion discoverable here or elsewhere. The slightest excitement will increase the pulse-rate immediately. The heart appears to be structurally sound, but like the patient it seems to be "nervous," if I may use the term in that sense. She has suffered a good deal from headache at different times. Indeed, this is her chief complaint at the present time—the original disease having settled down into a chronic permanent erythromelalgic condition still liable to occasional exacerbations though of less severity. It is now limited to the hands and wrists, which are still painful, stiff, and relatively useless, and worse in the winter than in the summer. There is undoubtedly a certain amount of thickening of the skin but the enlargement is chiefly due to vascular turgescence.

A uniform red swelling of the hands of the kind before you might be due to three anatomical lesions—organised infiltration, œdema which has become inflamed (cellulitis), and vascular turgescence (congestion). There is no pitting on pressure, so it cannot be simple effusion of serous fluid (œdema) such as occurs in dropsy; and it is not due to myxœdema because the patient has not the other signs of that malady. There is not any marked degree of general infiltration because, as Mr. R. E. Hanson has just demonstrated, the swelling and redness can be reduced by the simple process of holding the hands above the head. After holding the right hand up for two minutes the circumference of the fingers is reduced by one-eighth of an inch, and this is accompanied by a sensation of tingling. After being held up for 15 minutes longer the fingers undergo a further reduction of one-sixteenth of an inch. These changes are attended by numbness and tingling in the hand, and there is an obvious difference to be seen between the two hands as regards their size and feel. The left hand which has been in the patient's lap is obviously larger and the skin feels thicker.[3] It is therefore mainly an undue vascular turgescence. The fact that gravity exercises such a marked influence shows, I believe, that the vaso-motor mechanism is at fault. There is a permanent localised paralysis of the vaso-motor mechanism of the hands. Again the capillary reflex (as tested by Haig's hæmodynamometer) is delayed. It amounts to eight seconds, whereas after subduing the congestion by elevating the member it amounts to only four seconds The main lesion, therefore, in this case, is a vascular turgescence, an active or arterial hyperæmia of the hands, and it will be interesting to speculate as to the probable cause of it.

There are three possible causes of arterial hyperæmia. 1. There are certain agencies which have a weakening or paralysing effect directly on the involuntary muscular fibres in the tunica media of the arterioles. Fatigue after prolonged contraction such as that produced by prolonged exposure to cold is one instance of this and the hyperæmia after sudden removal of mechanical pressure is another, both of them being local agencies. 2. There may be paralysis of the sympathetic nerve fibres leading to loss of the continuous vaso-tonic contraction which we know is constantly present in the arterioles. Certain drugs (pilocarpine, amyl nitrite, &c.) are believed to act in this way directly on the nerve fibrils or vaso-motor centres. Reflexly, by inhibition the same effect may be produced—namely, by stimulation of a sensory nerve. 3. Excitation of the vaso-dilator nerves which physiologists have shown to exist, at any rate, in the chorda tympani. Now, I may say at once that my own view is that the case before us is partly dependent on the first of these causes, for her domestic duties involve an unusually large amount of washing. At one time her hands were always being exposed, and therefore the muscle-fibres of the arterioles becoming fatigued. This is probably why her hands were the chief seat of the mischief. But this does not explain the whole of the case, and it cannot account for that remarkable and severe attack of erythema from which she suffered in other parts of the body. The cause of this must, I believe, have been some generalised agent, such, for instance, as a toxic blood state.

Now in this case it may be remarked, in the first place, that there have never been any evidences or symptoms of any derangement either of the peripheral nerves or the central nervous system beyond a general irritability (as witnessed by the extreme nervousness and the "nervous" tremors of the hands), such as is so frequently associated with toxic blood states, as pointed out in my lectures on neurasthenia.[4] Indeed, I think we may assume that a toxic blood state is in operation in this case producing a general neurasthenic condition, and at the same time paralysis of certain of the vaso-motor nerves. An interesting feature in this case was the great increase of pain which ensued when the patient went to sleep, and this quite tallies with the explanation that I have suggested. You are aware that during sleep the tonic or continuous action of the vaso-motor centre is less, and the vessels of the surface of the body dilate; that is why we take cold so readily and why we feel the cold so much more during sleep. But this latter dilatation, added to that already existing in the hands, greatly aggravated the condition. Against the toxic origin it might be argued that the lesion was too localised for a hæmic derangement. But apart from the known proclivity which toxins have for certain localities we have seen that there existed here a determining factor in the large amount of washing and exposure.

That toxins may produce vaso-motor derangement, and that they may produce conditions very closely allied to that before us, we see in the case of ergotism where the hands are affected with an extreme vaso-constriction. Arsenic also, as seen in the recent epidemic of beer-poisoning in the north of England, may produce erythromelalgia[5] Erythematous conditions are fairly frequently met with when antitoxins are injected for the purpose of immunity. As to the nature of the toxin in vaso-motor conditions of the extremities it is purely a matter of conjecture. We have seen that this patient suffered a good deal from dyspepsia, and the imperfectly elaborated food products must necessarily form a potent source of perverted blood states. Patients with chronic dyspepsia are very apt to complain of coldness and blueness of the hands and feet, and we probably have, in the case before us, an aggravation of that condition. Indeed, it appears to me that we find in this patient's prolonged gastric derangement an explanation both of her neurasthenic symptoms and of the vaso-motor paresis which constituted the leading and most troublesome feature of the case.

CASE 2.—The patient who is coming into the room directly has suffered from Graves's disease for some years, a malady which is very frequently attended by vaso-motor symptoms and especially by some degree of *acroparæsthesia* more frequently, I believe, than is generally recognised. I am not sure that if inquiry were made the majority of these cases would not be found to have been affected in this way at some time during their illness.

---

[2] The letter which Dr. H. G. Sworn kindly wrote me is worth quoting *in extenso*. The patient "had severe pains in the arms and legs, with patches of redness (like erythema nodosum) on the flexor and extensor surfaces, also on the hands and feet The patches disappeared in about a week, leaving brown discolourations on the skin, they were succeeded by fresh patches At that time I looked upon the case as due to rheumatism and therefore treated her with salicylate of soda. The temperature varied from 99° to 101° F. Her urine deposited urates and was very acid."

[3] This experiment of holding up the hand and then measuring was suggested by my friend and pupil Mr R E Hanson. The experiment was repeated with the left hand with the same result.

[4] Clinical Lectures on Neurasthenia; Glaisher, London, 1899.

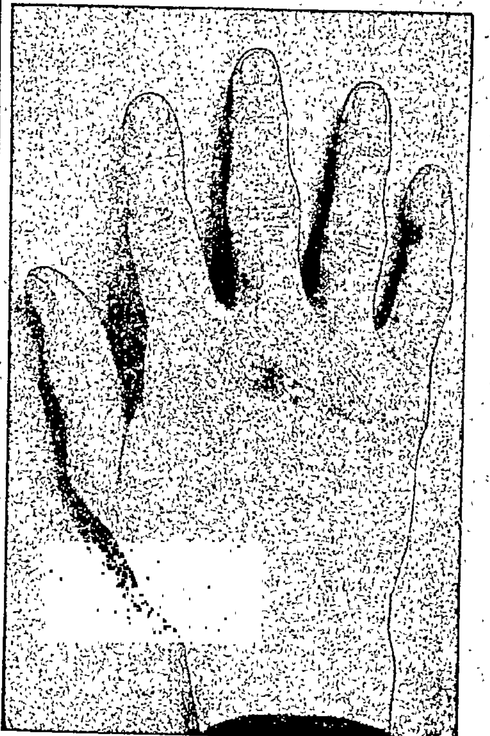
[5] Reynolds Transactions of the Royal Medical and Chirurgical Society, November, 1900.

The patient is a single woman, aged 36 years, who has had thyroid enlargement and proptosis. But the prominent symptoms in her case have always been those referable to the cardio-vascular and the central nervous systems. She is highly nervous, and she has suffered so much from agoraphobia that she has been seldom able to come to the hospital alone, though she has attended on and off for the last five years. During that time she has twice, for a period of three months, had to be placed in an asylum, so unrestrainable did her temper become. This patient presents several vaso-motor symptoms besides the rapid pulse which also probably comes into this category. She very easily flushes, and from time to time she has complained of numb sensations and "pins and needles" in the hands. This numbness is sometimes preceded by pain, the hands feeling, she says, as if they were "being crushed." During the attacks they get red and "puffy." These attacks sometimes come on spontaneously, but they may be determined by putting them in very hot or very cold water, and, like the previous case, they are worse at night when she goes to sleep and whenever she lies down, even during the daytime. She states that her mother, her maternal grandmother, and one of her sisters had their hands affected in the same way.

CASE 3. *Sclerodactylia.*—In Case 1 we had to do with attacks of painful redness and swelling of the hands, but now by a fortunate chance I am able to show you a case of precisely the opposite condition. You will remember that in Case 1 there was a dilatation of the vessels, a vascular paralysis, but in this patient we have to do with a vascular spasm, a pallor, followed by a hardening or sclerosis of the skin. The case which I am about to show you resembles Case 1 in one respect—viz., the hands are the chief seat of the disease, and the same lesion which affects the hands and forearms has appeared also on other parts of the body. It is a noteworthy fact in this case how the marked degree of sclerosis which was at one time present has almost entirely disappeared, so that I am only able to show you what remains of this.

The patient, aged 43 years, is a married woman, and the history of her illness is as follows. In 1895, at the age of 38 years, two months after a confinement, "white patches" appeared on the body. These have never disappeared and you will see on the left side of the thorax and abdomen two smooth white "ivory-like" areas, each of about the size of the hand, presenting all the features of scleroderma or, as Sir Erasmus Wilson called it, "morphœa." At one time the skin was almost as hard as gristle, but it is considerably thinner and more supple now. Shortly after these white patches appeared she began to be affected with attacks of "pins and needles" in the hands and feet. At first these attacks only came on at night and they were easily relieved by putting the hands out of bed, but by degrees they became much more severe, very painful, and gradually the condition became more or less continuous, though always paroxysmal. In addition to these sensations she noticed that the hands were becoming stiffer, owing apparently to the gradual increase in thickness of the skin. The hands, she told us, became slightly flushed just for a moment at the onset of the attacks, but did not swell, and immediately afterwards they became extremely pale and remained so. During the attacks the skin sometimes became "wringing wet with perspiration." Around the joints the skin and subcutaneous tissue gradually became much thickened so that the joints were very stiff and she could not close her hands. This thickening of the skin and subcutaneous tissue extended up the forearms for a considerable distance. This impeded the action of the muscles, which seemed matted together and bound down by the hard sclerosed skin. The feet, in this case, were similarly and equally affected, so that this unfortunate woman in the course of eight or 10 months was hardly able to walk because the ankles and the calf muscles were so stiff and "hide-bound." In November, 1896, before she came under my care, the tip of the second toe of the right foot became "cold, dead, exceedingly painful, and finally the skin at the end of the toe came off and left a sore which healed slowly and with a great deal of pain." You will see that there is a superficial scar there now. It was a year after this—in November, 1897—that I first saw her, and her hands and feet were then so stiff and painful that she could not close the former, and was hardly able to walk. The fingers were pale, thin, and tapering, owing apparently to the contraction of the skin, for the joints stood out, giving an appearance of enlargement. There was then, and there is still, you see, a certain amount of enlargement in the position of the joints owing to the thickness of the skin over them, and their movements are stiff for the same reason. But the enlargement is, I believe, more apparent than real, and due to the changes in the skin, which, by contracting down on to the shafts of the phalanges, causes the joints to stand out (Fig. 2). She was still (in November, 1897) subject to slight attacks of "pins and needles," followed by pallor and perspiration. This hardness of the skin and subcutaneous tissue extended nearly up to the elbows in the forearms and nearly up to the knees in the legs, and you will see that the skin in these situations is smooth and glossy, but it is now very little, if at all, thicker than normal. The feet are still subject to occasional attacks of pallor and sweating. As regards her previous history and family history there is nothing of importance to note. She has two healthy children. At first I put her upon iodide of potassium, but she got steadily worse, so that at one time she could hardly use her hands and arms to feed herself and she suffered greatly with pain. In July, 1898, I gave her thyroid extract (five grains) three times a day. This was subsequently supplemented by galvanism to the arms and legs three times a week for about two months, but I believe that

FIG. 2.



Sclerodactylia. Reproduction [illegible] ph showing the [illegible] and of a female [illegible]). The residual [illegible] on of the skin [illegible] skin upon the [illegible] enlargement of [illegible] naturally takes [illegible] the joints, and [illegible] in the skeleton hand. The fingers appear to be tapering from the same reason. The patient could not even at this time completely close or completely straighten the fingers as she used to do, hence the slightly curved condition of the fingers.

it was the thyroid extract (unless, of course, it was the spontaneous course of the disease) under which she made steady improvement. Week by week, month by month, the skin gradually became softer and more supple and natural and she gradually recovered the use of her hands. She is now, as you will see, apparently well, though any excessive amount of work or excess of cold or heat determines an attack of the same nature. She can walk fairly well now but the gait is still very inelegant. The patches of morphœa on the thorax are still visible, but they also have improved. They never gave her much trouble at any time.

Clinically this case appears to correspond with a somewhat rare condition which has been variously described by different authors. Thus, the "sclerodactylia," or "acro-scleroderma" of French authors, to which this case most nearly corresponds, is a condition referred to in some dermatological works[6] under the heading "scleroderma." But Kaposi[7] states that it is by French authors (Ball, Hallopeau, Dufour, Lepine) *erroneously* identified with scleroderma. Some German authors,[8] however, include it among skin diseases. The condition described by Mr. Hutchinson[9] as "acroteric scleroderma with liability to Raynaud's phenomena" probably also belongs to the same category, and a case has recently been recorded by Dr. W. P. Herringham[10] under the title "scleroderma and sclerosis of the muscles with recurrent attacks of local syncope." Dr. F. Parkes Weber[11] has recorded a case having some resemblance to this one under the title "trophic disorder of the feet — an anomalous and asymmetrical case of sclerodactylia with Raynaud's phenomena." But Dr. Weber's patient presented cyanosis (i.e., asphyxia) instead of pallor (i e., syncope) combined with dermal and sub-dermal sclerosis, and only the feet were affected. In other respects the cases had a good deal in common, though the ulcerative or gangrenous process appeared to be progressive in his case and retrocedent in mine. But, after all, the application of a name does not help us very much. The chief thing to do is to identify the pathological process which is at work. In the case which you have just seen there were two anatomical lesions: (1) recurrent attacks of vaso-constriction, and (2) scleroderma of the skin and parts beneath, limited almost, but not entirely, to the four extremities, and one of the first questions to answer is, What is the relation of these two lesions to each other? Are they products of the same cause? Is the sclerosis the result of the vascular lesion, or *vice versâ?* Unfortunately, we have not many data to go upon, but sclerosis such as this seems to me to be *almost certainly* connected with some obstruction to the return of the lymph from the parts involved. We know how intimately associated the arteries and the lymphatics are, and it seems highly probable that the real cause of the condition is a vaso-motor lesion, of a vaso constrictor type, affecting the vaso motor centres of the extremities in the spinal cord and rendering the skin of these parts unduly sensitive to external agencies. This would explain the paroxysmal and other features of the case. This would also explain the fact that the two processes (the syncopal attacks and the sclerosis) got worse and better together, allowing, of course, for the fact that the sclerosis of the tissues required longer time for absorption.

CASE 4.—In this case, again, one of "*dead-hands*," we have a vascular spasm with pallor as in the patient who has just gone out, instead of redness and swelling due to vascular dilatation. The patient is a single woman, aged 26 years, and all her life the fingers have "gone dead" whenever they have been exposed to cold. They have got much worse lately and it is for this that she comes to the hospital. In these attacks the fingers and hands assume a deadly pallor, feel quite numb and devoid of sensation, and after remaining white for some little time they resume their normal colour and then become a trifle livid. As the pallor passes off she feels a sensation of "pins and needles" and a tingling pain shoots up the arms, sometimes very severe. These attacks do not seem to be determined by anything excepting exposure to cold. They are rather more frequent at the catamenial period and are much worse in cold weather; she dare not wash in cold water. Sometimes she has had as many as a dozen attacks in a day. A whole attack may last from half an hour to two hours or so, and sometimes, she says, the hands will remain continuously white "for a long time." Warmth will generally shorten the attack. The patient came to me first in December, 1898, and all through the winter she had an average of a dozen attacks a day. As regards the capillary reflex it seems at the present time to be about normal. This case resembles an early phase of the syncopal or ischæmic form of Raynaud's disease, but the patient presents none of the other symptoms. There is no alteration in the texture of the skin of the hands or elsewhere. The heart and the arteries are normal, the arterial tension seems normal, and the pulse is normal, though it is easily increased in rate. The face is pale, but she says it has always been so. Hitherto, there has been no swelling of the hands at any time, but for the last fortnight the fingers, she says, have occasionally become a little swollen. In July, 1899, I noticed that she occasionally had a fine rhythmical tremor of the hands, and you will observe that it is present now. The association of tremor with vaso-motor lesions, both paralytic and spasmodic conditions, is in my experience a fairly frequent occurrence, but the explanation of the connexion is not very apparent. I think that they must both be the product of a common cause; and perhaps that may consist of a toxic blood condition. There is nothing of importance in this patient's personal or family history and she has never been subject to chilblains. As regards treatment, she got a little better at first under the administration of nux vomica, belladonna, and bromide of ammonium, combined with the use of the constant current, applied as in Case 1. In July, believing that the indication here was to relax the vascular spasm, I prescribed for her trinitrin in one-minim doses three times a day. It has certainly realised my anticipations and now, although the weather has been very much colder, she has greatly improved. This remedy has, I believe, done her more good than the electricity and the bromide. In order to test the efficacy of the trinitrin I have twice left it off, all the other conditions remaining the same, and each time the attacks returned.

CASE 5.—In this case (*acroparæsthesia* with other vaso-motor attacks) the *erythromelalgic* symptoms were quite transient and, compared with the other features of the case, relatively unimportant. They consisted of painful sensations in the hands attended by purple colouration. But as regards the other features, it is one of the most distressing cases of vaso-motor disorder I have met with.

The patient is a married woman, aged 38 years, who has suffered from the attacks about to be described practically ever since the age of puberty. She has sought relief at the hands of many physicians and has taken, she told me, many pounds of bromide. She is of the full-blooded type, tall and stout, with crimson cheeks and lips, and very energetic; but her life has been practically spoiled by a constant succession of three different kinds of attack, which merge, however, one into the other. First, she has been subject to "flushings" of the face and surface of the body, sometimes attended by actual swelling on the slightest excitement, several times a day. In one of these attacks I found that her neck measured three-quarters of an inch larger than normal. Secondly, she has had some very strange attacks which she aptly terms "rushes of blood to the head" attended by giddiness and "swimming in the head." Objects appear to whirl round and she is apt to fall unless she has support. On one or two occasions she did fall and injured herself. The pain in the head is very severe, the head feeling as though it "would burst" and as though it was "opening and shutting" with every beat of the pulse. The giddiness lasts from five to 10 minutes, but the bursting feeling in the head persists for an hour or so afterwards. In these seizures the surface of the body becomes cold and clammy and the pulse completely disappears from the wrist. She might have two or three of these attacks a day for a day or two, followed by an interval of a week or so; though even then she not infrequently has slighter attacks of the same nature—giddiness with a sensation of blood "rushing to the head." Thirdly, she is subject from time to time to headaches lasting for 24 hours or so, having all the characters of migraine. They generally follow a night of "horrible dreams," are relieved by emesis, and are succeeded by extreme prostration lasting for several hours. The scalp is acutely tender for some days On several occasions the headache has been attended by scintillating scotoma ("like catherine-wheels"), and one attack was succeeded by right homonymous hemiopsia lasting for two or three days. These three kinds of attacks, which have troubled this unhappy lady on and off all her life, have certain features in common. They are all specially apt to come on directly after she rises from her bed in the morning and the slighter ones may be determined at any time by suddenly assuming the erect posture or by being startled. Raising her arms, a movement that may be necessitated, for instance, by an attempt to "do her own hair," will invariably bring on the "giddy attacks" or rushes to the head. Lying down relieves them all in some degree, but if she sleeps with her head low she has very bad dreams and always has a "giddy attack" in the morning. The bowels are apt to be confined and the attacks are always worse then There is a vague history of "consumption" in the family; but apart from these distressing attacks this patient has been otherwise healthy all her life excepting for an attack of what was called "rheumatic arthritis" with which she was laid up for eight weeks in early life. The catamenia have always been very irregular. The attacks are worse at the expected period and are very severe if, as frequently happens, she misses altogether. Nothing abnormal can be discovered in the heart or viscera. She has been troubled lately with flatulent dyspepsia. She has slight hypermetropia (which has been accurately corrected by glasses), and slight granular pharyngitis As regards the latter Dr. Scanes Spicer reported, "I do not regard this as sufficient to account for her symptoms." This patient presents certain neurasthenic, or what, perhaps, some would call hysterical, symptoms. She is very "nervous" and easily startled, and she has not dared for some years to go out alone (agoraphobia). If she did horrible imaginary dreads would come over her or an attack of "giddiness." In past times many of this patient's symptoms would probably have been regarded as "hysterical," but about the reality and severity of her sufferings there is no doubt and she has vainly endeavoured for many years to get relief.

---

[6] See Dictionnaire des Sciences Médicales, third series, 1879, vol. vii.

[7] Diseases of the Skin, translation by J. C Johnston; Baillière, Tindall, and Cox, London, 1895

[8] E g, Lewin and Heller · Charité-Annalen, Berlin, 1894, vol. xix.

[9] Archives of Surgery.

[10] Transactions of the Clinical Society of London, 1900, vol. xxxiii.

[11] British Journal of Dermatology, vol. xiii., No. 2.

It appears to me that the chief lesion in this case is a defect of the coördinating power in the vaso-motor centre which allows the blood to collect in one part (generally the head) instead of into "the overflow reservoir"—viz, the splanchnic area. This defect, which is probably inherent or inherited, is apparently accompanied with an undue irritability of the spinal vaso motor reflex centres How to correct the former I was completely at a loss, but for the latter I ordered her a descending constant current to the spine and it was certainly attended with considerable benefit, for at the end of two weeks she reported, "The rushes have been much less frequent and lasted a much shorter time." To correct what I believed to be the causal agency of this defect attention was directed to the diet, for on inquiry I learned that she lived somewhat too well and was in the habit of passing excess of lithates in the urine. Copious libations of warm water and practically a nitrogenous diet were prescribed This produced a further amelioration, especially in the severe attacks of migraine, but unfortunately she was not able to persist in the rigorous diet which I had ordered her, and the relief was only partial.

In the next two patients the acroparæsthetic symptoms, as in the previous case, are of quite subordinate interest In the first of these two they consisted of a feeling of numbness and tingling in the hands when the other seizures to which he was subject came on. He did not notice whether the hands got pale or red We have seen that flushing or pallor may take place in many situations. If on the surface we can see the phenomenon, but if in the interior of the body it can only become manifest in other ways. The following case I believe to be due to flushing or pallor of the brain, this being due apparently not so much to vaso-motor or sympathetic disturbance as to cardiac failure combined with rigidity of the systemic vessels. Nevertheless, for reasons which will appear, I believe that the defect in other parts of the vaso-motor system played their *rôle* here also, otherwise postural alterations would not have played so important a part.[12]

CASE 6. *Acroparæsthesia accompanying various circulatory "attacks."*—A man, aged 54 years, first came to the out-patient department in October, 1898, complaining of "attacks" of various kinds which had troubled him for about seven years, at first only at somewhat rare intervals. He looks, as you will observe, considerably older than he is, and in point of fact he exemplifies the truth of the adage that "a man is as old as his arteries," for these are much impaired. He has suffered a great deal from attacks of vertigo, which came on whenever he assumed the erect posture or executed any movement which threw a strain upon the heart or circulation. The giddiness was sometimes attended by interruption of thought and sometimes he would be actually unconsciousness for a few moments, and on several occasions he fell. Latterly these attacks, commencing with giddiness, have presented all the phenomena of a severe syncope; finally, sometimes they have been followed by convulsive seizures presenting all the appearances of an epileptic fit. It has been shown by Kussmaul[13] that both anæmia and congestion of the brain may be attended by convulsions, and there is no doubt that all the various forms of attacks from which the patient has suffered—vertigo, interruptions of thought, transient loss of consciousness, syncope, and epileptiform attacks—were all due to disturbances of the circulation within the brain. The fact that the attacks could be determined by assuming the erect posture pointed very strongly in this direction. Careful investigation showed that there were no evidences of the other possible causes of the vertiginous or other attacks, and he had never had epilepsy in earlier life. There were, on the other hand, undoubted evidences of both cardiac and vascular disease, and, as we shall see, relief of the circulatory difficulties resulted in the immediate relief of the attacks. When he first came to the hospital he could not walk alone on account of the extreme giddiness from which he suffered. The breathlessness was very marked, the pulse was extremely feeble, rapid, and irregular, and of very low tension. The heart was considerably dilated both to the right and to the left, and the apex beat was situated half an inch outside the nipple line. The auscultatory signs were consistent with a dilated heart in which the valves, apart from the dilatation, were healthy. All the superficial vessels were thick, hard, and tortuous He was ordered chloroform, ether, and ammonia, and subsequently digitalis was added—nothing else—and his improvement was almost, as he expressed it, like magic. He has now been attending almost a year, the treatment all the while being directed to the heart. He came to us believing that his days were numbered, and to-day he has asked for the second time to be allowed to return to work. The heart has almost resumed its normal dimensions and the only attacks he now has are the slighter vertiginous ones, and these only occasionally. I may add that some of this patient's epileptic attacks were "latent"—e g., were unattended by convulsions—and in one of these he walked into his bedroom and began to undress without knowing what he was doing.

In this patient the acroparæsthesia was quite a subordinate feature, and I have brought him before you not so much as an example of angio-neurosis as to show you what grave effects may ensue from serious vascular and, as I hope to prove to you hereafter, angio-neurotic disorders. The case is a very instructive one, and it is somewhat unusual in that it is rare for the circulation of the brain to be so profoundly disturbed as to produce syncope, unconsciousness, and epileptiform convulsions without death speedily ensuing. I can only remember to have seen one similar case within the last 10 years It was that of a woman, aged 61 years, in whom epilepsy was supposed to have supervened for the first time at the age of 56 years, a very unusual circumstance, as you are aware. She had very strange attacks in which she did not fall but stiffened herself and leant against the nearest object quite unconscious, working her arms and jaws in a most peculiar manner. This stage was followed by stertorous respiration and a period of drowsiness. The illness had begun seven years before and as, in the male case, the attacks, which at first consisted of vertigo, gradually became more severe, were attended with unconsciousness, and finally assumed the characters I have just described. She also improved under remedies directed to the cardio-vascular system. I might add that in both of these cases a cessation of the treatment was attended with a return or exacerbation of the attacks.

Is it possible that these patients had a thrombosis or embolism of the brain—though there were no evidences of it—and that it was this lesion which rendered the brain unusually susceptible? In any case it was clearly the disturbance of the circulation which produced the epileptiform seizures. These observations help to confirm the notion that attacks of idiopathic epilepsy are due to vascular alterations in the brain, a fact which might be borne in mind in the treatment of the latter affection. I hope to return to this subject on a future occasion.

---

[12] Dr. Leonard Hill denies the existence of vaso-motor nerves in the brain. It is not a point of prime importance to our present argument but it is difficult for clinical observers to accept this statement in its entirety.

[13] Translations of the New Sydenham Society.

CASE 7. *Acroparæsthesia accompanying hemicranial sweating and flushing.*—In this case the patient is subject to attacks of tingling, numbness, and pallor of the hands from time to time, which resemble those in Case 4. The chief interest of the case, however, rests in other directions. Here we can localise the main lesion with considerable precision—viz., in the superior cervical sympathetic ganglion—and we can say that it is a paralytic or destructive lesion as distinguished from an irritative one. The patient, a woman, aged 52 years, complained of attacks of excessive perspiration preceded by a slight *flush of the left side* of the face and head. She habitually sweated more on this side of the scalp, and her hairpins got rusted on that side. When she was excited this sweating got worse and she then had a running from the left nostril. She complained also of attacks of pain in the forehead and on the top of the head, chiefly down the left side to the neck which were worse when she was in a draught or out in the cold. The attacks of pain or of sweating were sometimes ushered in by a "dragging pain" in the chest. She was very apt to get generalised flush-storms, when she went "hot all over" and perspired, then finally "went cold," when she might shiver. These attacks came on when she was "nervous." The pain in the head might also be determined by washing in cold water. These symptoms have been present on and off for three years. The wetness of the head has been her chief trouble and it was for this symptom chiefly that she applied. Here, then, we have attacks of vaso-dilatation of the left half of the head and neck, the area which is controlled by the cervical sympathetic. Let us see if there are any other symptoms of paralysis of that structure. You will observe that the left pupil is larger than the right and that it seems to get larger and smaller (more or less rhythmically) as one looks at it. There is no obvious alteration in the palpebral aperture, the ocular tension, or the prominence of the eyeball. When she is frightened or worried the pain in the head feels worse, so also are the perspiration and the running from the nose. The appetite is not good. The bowels are confined. The menopause occurred two years ago. Her present symptoms date from an illness which appears to have been influenza and with which she was laid up in bed for two or three weeks. She is subject to cold feet, and she had chilblains as a child, but there is nothing else of importance in her history. It is evidently a marked instance of a paralytic lesion of the sympathetic ganglion in the neck on the left side. There is no evidence of any growth or swelling in the neck. The case is probably connected in some way with the influenzal attack to which I have just referred. To-day is the first time that she has come to the hospital and I propose to give her ergot, bromide of ammonium, and mistura alba.

I have brought these seven patients before you because they are attending the hospital now and because their cases seem to illustrate fairly well some of the many different symptoms of angio-neurotic disorder. There are many others which I could mention, but I think that it is hardly necessary for our present purpose. They all presented acroparæsthesia or some other angio-neurotic disturbance of the extremities; and in conclusion I should like to add a few remarks, first, on the etiology of acroparæsthesia; secondly, on the most prominent symptoms which this and other vaso-motor disorders present in common; and thirdly, on the classification of these acroparæsthesic cases and the relation which they bear to Raynaud's disease.

First, as regards the etiology of acroparæsthesia. Out of 35 marked cases which I have recently observed, 29, or 82·8 per cent., were females. Excluding two children, aged four and 10 years respectively, the average age was 32·4 years. In 10 patients these conditions were secondary to other maladies, such as neurasthenia, hysteria, Graves's disease, acromegaly, and general paralysis of the insane, but the rest (25) applied for relief of the acroparæsthetic conditions.

Acroparæsthesia, erythromelalgia, and the other many and varied vaso-motor symptoms have certain features in common. 1. They are much more frequently met with in the female sex, the proportion, I find, usually being much higher than that above mentioned. I imagine that something like 90 per cent. of these cases occur in female patients. 2. Vaso-motor conditions appear to be due to some inherent and very often inherited tendency in the patient, for they recur again and again in one form or another during the life of an individual. Thus, a patient may have migraine at one time, severe flushings at another, and syncopal attacks at another, though I have generally found that there is a tendency to a recurrence of the same disorder. There are, moreover, two epochs of life which are specially prone to their development—namely, puberty and the climacteric. 3. The onset of the symptoms, whatever they may be, is always more or less sudden. 4. They are in all cases paroxysmal—i.e., they occur in the form of attacks. There is a sudden rise, when the symptoms soon reach their acme, followed by a gradual descent. In severe cases the attacks may be so frequent as to resemble a continuous malady, but close observation will detect that there are well-marked exacerbations. 5. In the great majority of the patients flushes or flush-storms occur from time to time during the patient's life; should these be absent there are generally other evidences of vaso-motor instability. 6. A great many of them—particularly of the vaso-dilator kind—are amenable to treatment by bromides, which relieve them at any rate for a time. These six features are very instructive, and many of them may be explained by the study of the physiology of involuntary muscular fibre. This and other points must be referred to a future occasion, but I wish, in conclusion, to reduce, if possible, vaso-motor conditions of the extremities to something like order and to consider what relation they present to the disease first described by Raynaud.[14] The result of my experience is embodied in the following classification and you will observe that the cases which we have seen together to-day fall naturally into one or other of the different groups.

CLINICAL CLASSIFICATION OF VASO-MOTOR DISORDERS OF THE EXTREMITIES.

A. VASO-DILATATION.—(*a*) *Early stage* (*chronic*).—Attacks of redness (congestion) and tingling, burning, &c. (*congestive acroparæsthesia*)—e.g., Case 2 and Case 5 and early stages of Case 1. (*b*) *Late stage* (*chronic*).—The symptoms are attended by swelling which gradually becomes permanent (*erythromelalgia*)—e.g., Case 1. (*c*) If the process takes an *acute* course the symptoms go on to gangrene, usually moist gangrene (*Raynaud's disease*—congestive or asphyxial type).

B. VASO-CONSTRICTION.—(*a*) *Early stage* (*chronic*).—Attacks of pallor and bloodlessness (ischæmia) attended by numbness, tingling, "pins and needles," "dead fingers," &c. (*ischæmic acroparæsthesia*)—e.g., Case 4 and Case 7. (*b*) *Late stage* (*chronic*).—The symptoms may be attended with thickening (sclerosis) of the skin and subcutaneous tissue (sclerodactylia)—e.g., Case 3. (*c*) If the process takes an *acute* course dry gangrene probably results (*Raynaud's disease*—syncopal type).

It will be seen that these varieties correspond to the different varieties and phases of Raynaud's disease, which begins in one or other of the above ways and may go on to gangrene. These cases are also probably related to the condition described by Dr. Henri Meige and others[15] under the name of "chronic hereditary atrophœdema."

Attacks of perspiration (hyperidrosis) which are sometimes met with in the extremities, probably come under the same category also, but it would not do to include these in the above classification, because although the derangement is probably seated in the sympathetic nerves, and the sweating is very generally attended by flushing, we are not sure that the sweating is not controlled by separate nerves.

These cases, gentlemen, brought together by the chances of clinical work, will give you a very fair notion of acroparæsthesia and erythromelalgia, and the relation, as it appears to me, of one to the other, and to Raynaud's disease.

---

[14] On Local Asphyxia and Symmetrical Gangrene of the Extremities, Thèse de Paris, 1862; also new researches on the same subject, Archives Générales de Médecine, January, 1874.

[15] Desnos: Bulletin de la Société Médicale des Hôpitaux, February, 1891. Higier: Petersburger Medicinische Wochenschrift, 1894. Meige: Presse Médicale, December, 1898. Henri Meige: Nouvelle Iconographie de la Saltpêtrière, November, 1899. Lannois: Nouvelle Iconographie de la Saltpêtrière, November, 1900.

We know very little about the sympathetic nervous system Laboratory experiments, which, by the way, are not wanting, have not thrown much light on the subject; and the first step in an inquiry of this kind seems to me to get a clear notion of the clinical phenomena we wish to investigate and their relation to one another. This has been my object to-day

ARTERIAL HYPERTONUS AND ARTERIO-SCLEROSIS: THEIR RELATIONS AND SIGNIFICANCE[1]

BY WILLIAM RUSSELL, M D, F R C P EDIN,
ASSISTANT PHYSICIAN, ROYAL INFIRMARY, EDINBURGH.

Introductory —I propose to ask your attention to-night, first to the various applications of the term "arterio-sclerosis"; secondly to my own observations on the condition; thirdly to a state of the arteries to which I have ventured to apply the term "hypertonus"; and fourthly to the relations of hypertonus to arterio-sclerosis "Arterio-sclerosis" is not a term of Anglo-Saxon birth, it has come to us from our brethren on the continent of Europe It is only within recent years that it has come into general use in this country, and if proof of this were wanted it is to be found in the fact that the word does not even occur in the first edition of Fagge's "Principles and Practice of Medicine," published in 1886 or in the sixth edition of Bristowe's "Treatise on the Theory and Practice of Medicine," published in 1887 If those who use the term are asked to define it a considerable variety of reply is given, and it becomes evident that a varied significance attaches to it Some mean atheroma, others mean fibrous thickening, others mean degeneration, and others mean a combination of all three conditions If there is any one characteristic which is recognised by all those who use the term that characteristic is thickening or induration of the arterial walls as tested by the condition of the radial artery Such vague and indefinite notions regarding a common condition are at least unsatisfactory, and as I have had considerable opportunities of studying the condition a brief account of my observations may be of some help in giving the condition a more definite position Before recording these observations it is, however, necessary to deal with what we may regard as the authoritative definitions and explanations of the term in question

Historical and pathological —A historical *résumé* entitled "Étude Clinique sur les Indurations des Artères," by Dr Noël Gueneau de Mussy, appeared in the *Archives Générales de Médecine* of 1872 p 129 Dr de Mussy showed that the condition is common in early and middle life and not necessarily present in old age, and he included atheroma under the term "induration" Ziegler says that "sclerosis in an artery implies the existence of local thickening of its inner coat," and proceeds then to describe atheroma He was the first to describe in detail and to discuss arterio-sclerotic atrophy of the kidney He showed that the renal arteries and their branches in aged people are very frequently the seat of sclerotic changes which may simultaneously affect the arteries of other regions also or be confined to the kidney In this condition the intima of the arteries is notably thickened and the lumen correspondingly narrowed or even obliterated, and he showed that this vascular change in the kidney gave rise to a special form of contraction of the organ which he termed "arterio-sclerotic atrophy"

All the German pathologists may be said to use the term "arterio-sclerosis" to describe atheroma, whatever else they may include under it Of all the German work, however, there can be no question that it is Thoma's which has specially influenced opinion in this country and in America To borrow a term from social life, he may be said to have "set the fashion" in the use and interpretation of the term in clinical medicine and, so far as we have been able to find, pathology has not let its voice be heard beyond the lecture room Thoma's views may be briefly summarised as follows the elasticity of the vessel wall becomes reduced in general diseases, acute and chronic infective diseases, long-continued disturbances of general nutrition, by many poisonous substances, and by functional overstraining of arteries from an increase of the heart's action. As a result the lumen dilates and the blood-stream is retarded in the widened vessel This retardation is the cause of a new formation of connective tissue in the intima of the widened artery. "The new formation of connective tissue in the intima renders the vessel wall more firm so that it appears more rigid and less yielding (arterio-sclerosis, phlebo-sclerosis, angio-sclerosis)"[2] In short, Thoma holds that the thickening of the intima is secondary to a dilatation of the vessel and consequent on slowing of the blood stream; that the thickening is to compensate for the assumed widening and to restore the equilibrium between lumen and contained blood which had been lost By this means, he maintains, the rapidity of the blood flow is re-established

If we turn to the French school we find Lancereaux in 1893 writing on "L'Endartérite ou Artério-sclérose Généralisée"[3] He defines the conditions as a proliferation of the cells of the intima which goes on to fatty degeneration due to failure of nutrition Huchard[4] mentions the fact that German authors always use the term arterio-sclerosis to signify atheroma of arteries, and he asks whether the terms are absolutely synonymous His answer is strongly in the negative He uses the term to designate a general condition of which atheroma is only one of numerous manifestations These include visceral scleroses—all dominated by a primary chronic inflammation of the small vessels described by many authors as obliterative endarteritis (or endarteriolitis) Arteritis of the small vessels, in short, he considers the anatomical characteristic of arterio-sclerosis (p 96)

Turning to English works of recent date it is not necessary to go beyond the valuable "System of Medicine" which has been edited by Dr T Clifford Allbutt Here we look for the high water mark of contemporary medicine, and in Dr F W Mott we find an exponent of the German view of arterio-sclerosis and an adherent of Thoma's views which have already been referred to He places the term "arterio-sclerosis" as the title of the section and in the introduction to the subject he says that the term "is applied rather loosely to a thickening of the vessel wall It includes the obvious naked eye change in the large arteries, named by some authors atheroma, by others, endarteritis deformans It includes also arterio capillary fibrosis, a change first described by Gull and Sutton in the walls of the small vessels, which only becomes obvious on microscopic examination" At page 320 he gives as his definition of arterio-sclerosis "a local or general thickening of the arterial wall with loss of elasticity, occasioned mainly by fibrous overgrowth of the tunica intima, secondary and proportional to weakening of the muscular and elastic elements of the media" It seems quite clear that Dr Mott includes atheroma under the term arterio sclerosis, and he follows Thoma in asserting that the primary change in atheroma is to be found in a degeneration of the tunica media and that the thickening of the tunica intima is secondary and compensatory to this He holds with Thoma that the observations made by the latter on paraffin moulds of the aorta prove this without apparently seeing that these moulds may, with equal justice, be held to prove that the atrophy of the media is secondary and compensatory to the hypertrophy of the intima It is not my purpose at present to elaborate this point, but I would indeed be surprised to find that British pathologists held this to be the order of events in atheroma For myself I may say that I have no doubt whatever that atheroma is a primary affection of the tunica intima, degeneration and destruction of the media being secondary; in fact, atheroma is so entirely a process by itself that it ought to be allowed to stand in its old position, it seems to me to be quite unnecessary to extend to it the German use of the word "arterio-sclerosis"

Passing from this question of the inclusion of atheroma in arterio-sclerosis we find that Dr Mott describes a "diffuse arterio-sclerosis" (p 329) in which the changes begin in the small arteries and capillaries, especially those of the renal cortex, brain, and heart, and are frequently associated with "nodular atheroma" of the aorta He says that "on minute examination the muscle fibres of the media show hyaline swelling, fatty degeneration, or atrophic changes so that the muscular elements are often not recognisable; this is especially the case in the small arteries of the kidney where the wall of the vessel may appear to consist of a homogeneous hyaline tissue. Sometimes the degenerated atrophied fibres of the media can be made out, but nothing of the elastic lamina, the intima being thickened and represented only by a homogeneous hyaline material with but few nuclei." The result of these widespread changes is increased resistance to flow of blood through the capillaries, hypertrophy of the left ventricle, dilatation of larger arteries from degenerative changes in muscular and elastic tissues of the media, slowing of the circulation, and compensatory proliferation of the subendothelial layer of the inner coat" (p 330). Here, again, Dr. Mott strongly commits himself to Thoma's view. In America Osler, Councilman, and others have committed themselves to Thoma's views.

---

[1] A paper read before the Medico-Chirurgical Society of Edinburgh on May 1st, 1901.

[2] Pathology and Pathological Anatomy, English translation p 247

[3] Archives Générales de Médecine 1893, I pp. 5 and 164

[4] Maladies du Cœur et des Vaisseaux, 2ème édition, Paris, 1893.

From the foregoing *résumé* which, while not professing to be exhaustive, may be taken as fairly representative of authoritative views, it is seen that the term arterio sclerosis is applied to three conditions: (1) to atheroma; (2) to a generalised endarteritis; and (3) to a thickening of the intima compensatory to dilatation of vessels from weakening of their middle coat. This *résumé* could not, however, be regarded as even approximately complete without some reference to the views, expounded by men of eminence, on the relations between granular kidney and the changes in the arteries and heart which accompany granular kidney. In fact, no exposition on arterial changes could suitably ignore this side of the question.

George Johnson (1850–1873) was the first to show that thickening of the muscle coat of the arteries occurred in granular kidney, and he held that the changes in the heart and vessels were secondary to primary kidney changes. Gull and Sutton (1872–1877) propounded the view that there occurred a generalised change or disease in the vessels, to which they gave the name "arterio-capillary fibrosis." The changes in the kidney were regarded as secondary to this vessel fibrosis. Dickinson (1875) held that a growth of fibrous tissue in the kidney was the primary change and that the changes in the vessels were secondary to this. Rosenstein (1881) agreed with Johnson as to the thickening of the muscular coat of the arteries, but thought that the thickening of the intima was inflammatory. Ewald (1881) held that there were two forms of changes in the vessels connected with Bright's disease: first, that in which the kidney was affected primarily and was followed by hypertrophy of the heart and of the muscle coat of the arteries; and, second, that in which disease of the general vascular system was the starting-point of the kidney disease In this latter there was arterio-capillary fibrosis both in the kidney vessels and in the general vascular system. He thought that it was a question whether such cases should be called "Bright's disease" or not. Dreschfeld and Mahomed (1881) held practically the same view as Ewald, the latter holding in addition that there might be cardio-vascular changes without necessarily renal changes being present in all. Samuel West carried the discussion down to last year and discourses on the old theme as to whether the kidney lesion or the arterial change is the first to appear. He enters a protest against granular kidney being considered partly under vessels and partly under kidney.

Personal observations —I now ask your attention to my own observations which were conducted on a simple plan. All the cases I examined were seen by me during life. As the radial artery is the vessel which is taken as the type during life I decided to examine it after death. I also usually examined the renal artery, the coronary artery, and the kidney itself. In one case the cerebral nutrient vessels were examined by my friend Dr. Ford Robertson. In this way I have examined so far 16 cases and the results I have arrived at may be stated as follows. 1. Atheroma and arterio-sclerosis are two totally distinct clinical and pathological entities. 2. Atheroma is a localised and patchy affection of the arteries characterised by degenerative changes which have long been recognised. 3. Arterio-sclerosis is a generalised affection of the arteries and is characterised by (*a*) thickening of the tunica media, this thickening being primarily a true hypertrophy, although it may ultimately show some degeneration; (*b*) thickening of the tunica intima from fibrous hyperplasia of the subendothelial connective tissue without atheromatous degeneration; and (*c*) in some instances fibrous thickening of the tunica adventitia. 4. The changes in the arteries *in* the kidneys differ from those in the radial, or even in the renal arteries themselves before they enter the kidneys. They differ in the following respects: in the kidney the thickening of the intima is proportionally greater, the media is not appreciably thickened, it may even be atrophied and may have undergone hyaline degeneration. (The atrophic changes in the kidneys are in proportion to the sclerotic changes in the vessels.) 5 The lumen of the radial arteries and of the arteries in the kidneys is markedly diminished. 6. The changes in the nutrient arteries of the brain, and probably of the cord, correspond with those in the arteries inside the kidneys. 7. Arterio-sclerosis may be associated with more or less atheroma in the same subject.

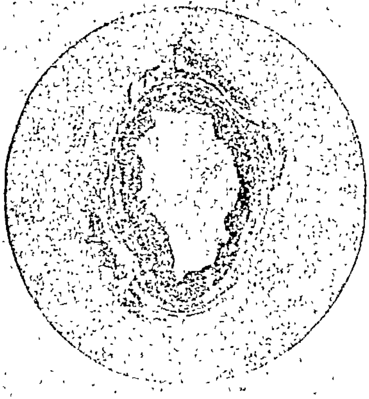
My cases contradict Thoma's view that the thickening of the intima is compensatory to weakening and yielding of the media. In only one of my cases would the condition of the radial artery lend any support to this view. Fig. 1 represents the radial artery in this case and it will be seen that the vessel has a large lumen, that the muscle coat shows degeneration, and that the intima is thickened. Although this was the condition of the radial artery the changes in the kidney vessels corresponded with the changes in my other cases. Fig. 3 and Fig. 5, which are typical examples, represent the radials from two of my cases and show the small lumen, the thickened media, and the thickened intima Fig. 4 represents the kidney from the same case as Fig 3 and shows the marked thickening of the intima without thickening (perhaps even some atrophy) of the media Fig. 6 represents the kidney from the same case as Fig 5 and shows the great thickening of the intima, going on to occlusion of the lumen of the vessel, and along with this the atrophy and disappearance of the media as a distinct structure This case is the one in which Dr. Ford Robertson examined the nutrient arteries in the brain, and the changes in them correspond with the changes here described in the kidney.

In only one of the series which I have examined was there atheroma of the radial artery and in none was there atheroma of the kidney vessels. In some of the cases there was hardly any atheroma of the large arteries The thickening of the intima in the arteries of the kidney goes on to complete occlusion of the vessels affected; it cannot, therefore, be compensatory in the sense in which Thoma and his followers apply the term. Were it compensatory it should cease with the establishment of compensation.

Much of the confusion and difference of opinion which characterise writings on the kidneys and arteries have, I think, arisen from a failure to separate the points of similarity and of dissimilarity in the changes which occur in the arteries inside and outside the kidney. Inside the kidney the changes are most marked in the intima; outside it the changes are most marked in the media. In both, however, the intima is thickened. Inside the kidney the media may disappear and it often atrophies; outside the kidney this never occurs. In two of my cases the change in the radials was almost a pure hypermyotrophy such as Savill described, and it is interesting to note that in one of these there was a diffuse kidney cirrhosis with only slight thickening of the intima of the kidney arteries. Did time permit I might enlarge upon the relations of kidney and arterial change, but this must meanwhile be left. Fig. 2 represents this almost pure hypermyotrophy, and so far as I can at present see this is the only condition which may not be clinically distinguishable or at least not readily distinguishable from arterio sclerosis.

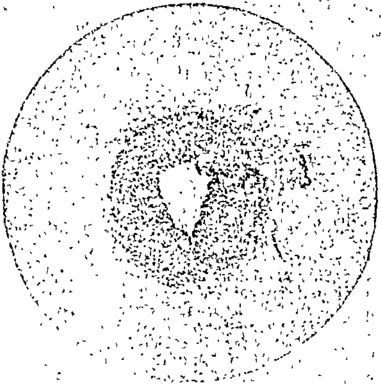
Clinical aspect of arterio sclerosis.—If we now turn to the clinical side of arterio-sclerosis the diagnosis rests primarily upon the condition of the radial arteries, supplemented by observations on the temporal and other vessels of corresponding size readily accessible to observation. The condition of the radial artery is taken as an index of the condition of vessels beyond direct examination. When brain, heart, or renal symptoms are present along with changes in the radial they are referred, in the case of the brain and heart, to the condition of the nutrient arteries of these organs. The changes are presumed to be of the same nature. In a case with renal symptoms the condition of the radial artery forms a large part of the foundation warranting a diagnosis of marked kidney change. The vessel is indurated and its wall is thickened; the induration is uniform, and the vessel, as felt upwards along its course, has been compared to whip-cord or to other substances. The truest comparison is to be found in the difference which, to

FIG. 1.



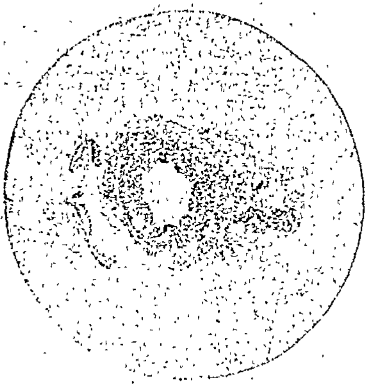
Radial artery showing large lumen, degeneration of media, and thickening of intima. × 16 diameters.

FIG. 2.



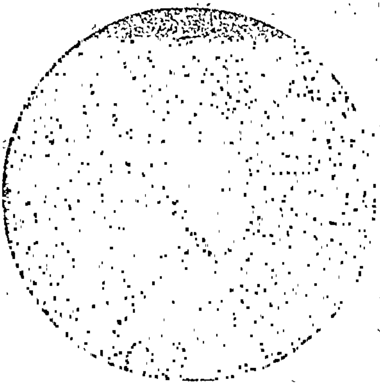
Radial artery showing hypermyotrophy. × 16 diameters.

FIG. 3.



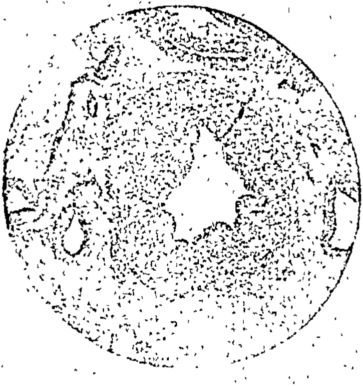
Radial artery showing small lumen, thickened media and intima. × 16 diameters.

FIG. 4.



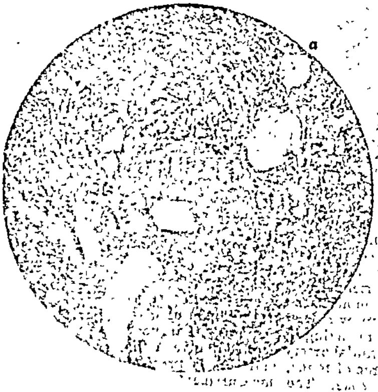
Kidney from same case as Fig. 3, showing sections of two arteries with much thickened intima without corresponding thickening of media. × 50 diameters.

FIG. 5.



adial artery showing small lumen and thickened media and intima. × 16 diameters.

FIG. 6.



Kidney from same case as Fig. 5, showing in centre of field artery with greatly thickened intima and atrophied media. At *a* occluded arteriole. × 50 diameters.

any educated finger, exists between a thin-walled and a thick-walled piece of rubber tubing of the size of an average radial artery. The uniformity of this thickening distinguishes the condition from atheroma where the thickening is irregular and may present areas of calcification. This thickened condition of the radial wall is often spoken of clinically as "high tension." This error has arisen from the fact that in high tension the artery feels cord-like, and thus all cord-like pulses are often loosely spoken of as high-tension pulses. The error is a very grave one, for the thick-walled vessel may have a very low pressure blood-stream; and the word "tension" in this connexion is used as if it were synonymous with pressure and as if the thick vessel always, and necessarily, meant high pressure. Indeed, it would be wise to abandon this word "tension" altogether until it came to be properly applied to a condition of the vessel wall alone and had clearly separated from it any application to blood-pressure. In anything I may say here I shall use the term "blood-pressure" in its correct sense.

Another common clinical error is to speak of a thickened radial artery as atheromatous, there being a widespread idea that thickening in arteries is synonymous with atheroma.

Arterial tonicity and hypertonus.—In the next place I wish to emphasise a feature of the pulse—including therein as is commonly done the condition of the arterial wall as well as the blood wave—which is largely ignored. I refer to the state of contraction of the vessel wall. Relaxation is recognised, in acute pneumonia for instance, and its significance is not overlooked, but is regarded as an indication for certain therapeutic measures. Arterial spasm, on the other hand, is recognised in angina pectoris and in some renal and other diseases. With the exception, however, of certain definite maladies, of which those mentioned are examples, there is little or no attention directed to this factor. The fact of a varying degree of contraction in arteries is really not open to question and the point does not require to be elaborated; in fact, I think that it is the recognition of this which has led to the confusion of the terms "tension" and "blood-pressure." In physiological conditions of perfect health when the arteries are tightened up, that is, contracted beyond their ordinary, the blood-pressure is raised because the vigour of the left ventricle is unimpaired. This heightening of blood-pressure inside a vessel necessarily, then, implies an increase of tension of its wall. On the other hand, a vessel may be tightened up without the blood-pressure being raised. This occurs when there is an accompanying diminution in ventricular force. In a certain sense even this tightening up of a vessel may be spoken of as "tension" (quite apart from the pressure exerted on its wall by heightening of blood-pressure), but the word is not used in medicine in this sense, otherwise extra contraction of all involuntary muscle, by nervous or other influences, would be spoken of as "tension," whereas "spasm" is the word used.

Spasm, it must be remembered, is only an exaggeration of the normal condition in muscle which is known as "tone" or "tonicity," and it is to this exaggerated tonicity in the vessels that I have ventured to apply the term "hypertonus." The word "spasm" has in medicine too restricted an application to make it suitable for my present purpose. The condition which I have in view is a prolonged or oft-recurring increase of the normal degree of contraction which vessels have in virtue of their muscle coat, and which is physiologically called "tonus." Hypertonus carries with it an important influence on the circulation apart from any alteration in blood-pressure—namely, a diminution in the blood-containing capacity of the vessels from a diminution in their internal diameter. This diminution in lumen necessarily occurs when an active contraction of the vessel wall is present. In diseased conditions it has very important results and determines symptoms of grave significance, to which reference will presently be made.

Recognition of hypertonus.—We have next to inquire how this condition of hypertonus can be recognised clinically. In the first place it can be either recognised, or suspected, by the educated finger. I have recognised the condition for years and acted on its recognition. With the assistance of my friend Dr. Oliphant Nicholson I have, however, been able to demonstrate the existence of this condition. I took cases where by means of the finger alone I judged that there was this recurring hypertonus. I argued that, if I were correct, the radial artery ought to give a diameter varying with the degree of tonus, and this is precisely what we found to be the case. The measurements were made by means of Oliver's arteriometer. By this instrument the diameter of an artery can be determined, and we found that when the vessel to my sense of touch was in the condition of hypertonus its lumen was smaller than when my finger told me that the hypertonus had passed off. We further took sphygmographic tracings from the artery and found that the arteriometer measurement and pulse-tracing helped to explain each other. I do not, however, wish it to be thought that arteriometer and sphygmograph are necessary to enable the clinician to recognise this condition, for they are not.

To illustrate the existence of hypertonus I direct your attention to sphygmographic tracings and arteriometer measurements from four cases.

CASE 1.—A man, aged 35 years, came to me at the Edinburgh Royal Infirmary complaining of headache and general weakness and insomnia. He was a strongly built, well-nourished man, but was somewhat pale. He had been working at his occupation for three months and before that time had been well. The radial artery was markedly thick, the thickening being uniform and extending right up the arm. In fact, it presented the characters which would commonly be described as "arterio-sclerotic." The man was young, and this, combined with his symptoms and the absence of any evidence in the urine of renal disease, led me to surmise that this vessel condition was largely one of hypertonus and that, even assuming that there might be some degree of thickening, his complaints were due to the hypertonus and to the causes producing it. An arteriometer measurement and a sphygmographic tracing were taken and he was admitted into Ward 23. Some doses of erythro-tetranitrate demonstrated that hypertonus was accountable for most, but not all, of the radial thickening; this substance, as is well known, relaxes arterial spasm, but does not, of course, remove an organised thickening, and in this case it greatly reduced the thickening by relaxing the spasm. The arteriometer measurement and the sphygmographic tracings can be compared with the former ones. Tracings 1 and 2 were taken before and after giving erythro-tetranitrate and the arteriometer measurements were 2·3 and 2·7 millimetres. The existence of hypertonus in this case is of special interest, as we found afterwards that the man had had syphilis.

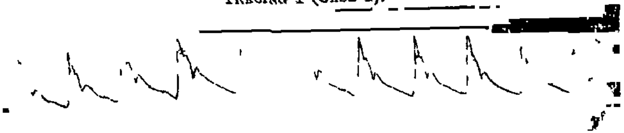
CASE 2.—The next tracings were also from a patient in Ward 23 suffering from spasmodic asthma. He was a man, aged 53 years, and it was quite clear that when the asthmatic spasm supervened his radial arteries became markedly tightened up. The following are the pulse tracings (Tracings 3 and 4) during the asthmatic spasm, and after its relief by means of liquor trinitrina the arteriometer measurements were respectively 2·2 and 2·4 millimetres.

CASE 3.—The next tracings (Tracings 5 and 6) were from a man, aged about 60 years, also in Ward 23, suffering from extreme orthopnœa, believed to be of cardiac origin and due to myocardial degeneration. The vessels were thickened, but they also seemed to me to be in a condition of hypertonus. He got great relief from the administration of antispasmodics. The arteriometer measurements were respectively 2·4 and 2·7 millimetres.

CASE 4.—The next tracings are from an old man, aged 70 years, who was under my observation for years in Queensberry House. He was subject in his later years to recurring attacks of "renal asthma," during which his permanently-thickened vessels quite appreciably tightened up and became thicker. The sphygmograph gave the following traces (Tracings 7 and 8) during the attacks and in the intervals, and the arteriometer gave the diameter of the vessel as 2·2 and 2·6 respectively.

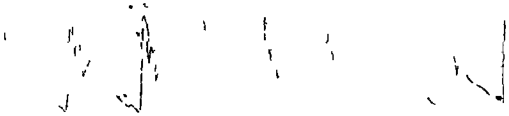
In these four cases the difference in the pulse when tightened and not tightened was readily appreciable by the finger. The sphygmograms bear out this, while the arteriometer reading of the diameter of the radials under the two conditions explains the sphygmograms. Under hypertonus the swing of the lever is less, the percussion stroke is shorter and less abrupt, the summit tends to be more rounded, and the predicrotic notch less evident. When the hypertonus passes off all this is altered.

Cases in which hypertonus occurs.—Hypertonus occurs in normal arteries and in sclerosed arteries. It occurs in the young, the middle-aged, and the old. In fact, I would specially impress upon you the fact that even in thickened arteries, showing arterio-sclerosis, this tightening up which I have called "hypertonus" occurs. This combination was present in three or four of the cases from which the pulse tracings were taken. Now if this not only can, but does, TRACING 1 (CASE 1).



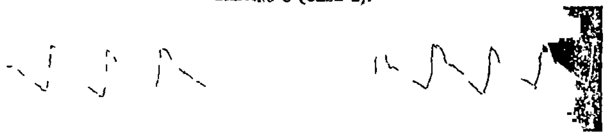
Diameter of artery 2 3 mm.

TRACING 2 (CASE 1).



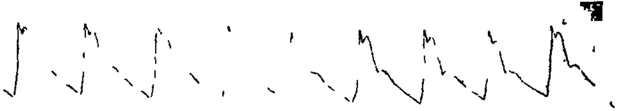
Diameter of artery 2·7 mm.

TRACING 3 (CASE 2).



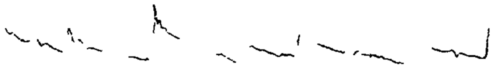
Diameter of artery 2·2 mm.

TRACING 4 (CASE 2).



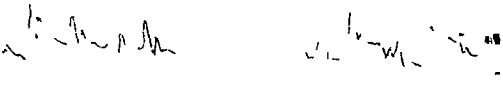
Diameter of artery 2·4 mm.

TRACING 5 (CASE 3)



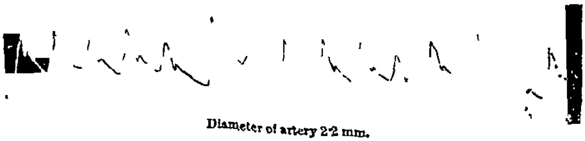
Diameter of artery 2·4 mm.

TRACING 6 (CASE 3)



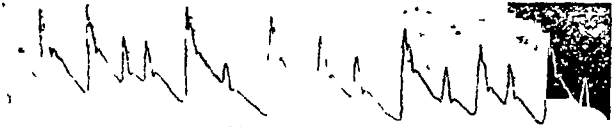
Diameter of artery 2 7 mm.

TRACING 7 (CASE 4).



Diameter of artery 2·2 mm.

TRACING 8 (CASE 4).



Diameter of artery 2·6 mm.

occur, the idea of muscular degeneration, with which the literature on arterio-sclerosis is saturated, and consequent inability on the part of the artery materially to respond to nerve or blood influences must be materially modified. Not only this but the recognition of this element or factor of hypertonus in sclerosed arteries is, indeed, of supreme clinical importance. Did time permit I could illustrate this point with numerous cases with symptoms referable in one case to the brain, in others to the spinal cord, heart, lungs, or kidney. In all the symptoms are mainly attributable to the hypertonus lowering the blood-supply to organs which are already badly supplied by the sclerosed arteries I shall only briefly refer to three cases.

CASE 5 —The patient was aged 70 years. He had markedly thickened arteries, arcus senilis, and no albumin. He began to be unusually somnolent during the day, his gait became somewhat unsteady and his speech somewhat thick, he could not concentrate his mind, and he noticed that in writing letters he misspelt common words. His arteries were tightened up but the blood-pressure was not high. Under treatment directed to the relief of hypertonus the symptoms entirely passed off and he has continued in good health for nearly two years

CASE 6 —The patient was a very old but active man who had been rather out of sorts for a week or two. He had thickened arteries and no albumin He suddenly one day became delirious and was kept in bed. His arteries were tightened up without any increase in his blood-pressure. Under treatment directed to the relief of the hypertonus the delirium became daily less and finally disappeared.

CASE 7 —The patient was a man, aged 60 years, who had been under my observation in Queensberry House since July, 1899 When admitted he had very thick vessels, but there was no albumin in the urine. After admission he had several attacks of "uræmic coma," in each of which I thought he would die. Although his vessels were amongst the thickest I had seen, arteriometer measurements confirmed my observation that even they varied in diameter Acting on the same lines this man recovered and has not had an attack for over a year.

Cause of hypertonus.—We now come to the question of the cause of hypertonus. The condition can, and does, occur at all ages. In strong people it is associated with, and part of, heightened blood-pressure and a pulse of true high tension.

In aged people with a relatively feeble or failing heart hypertonus does not lead to an increase in blood-pressure but to the reverse. In fact, it is not infrequently the precursor of heart failure. At all ages the condition, in the great majority of cases, is produced by the introduction of poisons into the body or by an auto-intoxication. The question of auto-intoxication is of great interest in this connexion, for it is due to physiological error along one or other of two lines. It may be, and often is, due to physiological errors in primary digestion with the absorption of toxins from the gastro-intestinal tract. In other instances it is due to errors in the processes included under secondary digestion, such as retention of waste matters and imperfect katabolism. The latter occurs in the aged, in gouty and rheumatic people, and in the sedentary. The former is perhaps more common in young adult life The condition is present, probably, in all diseases in which there is absorption of deleterious substances. It may even be caused by syphilis, and manifest itself, as in one of the cases I have referred to, before there is much permanent thickening of the vessel wall.

Connexion between arterio-sclerosis and hypertonus.—This brings me to the final question as to the relationship between arterio sclerosis and hypertonus. I connect them thus: recurring or continued hypertonus leads to hypertrophy of the muscular media of the arteries under the physiological law that increased action in muscle leads to its hypertrophy. I am not concerned at present to inquire how the increased action is brought about; I content myself by showing its existence. This accounts for the thickened media. The thickened intima is to be explained by the circulation in the blood of deleterious substances of various kinds; these substances act on the subendothelial connective tissue, irritate it, and lead to its hyperplasia. We thus get the completed picture of arterio-sclerosis. The evolution of the changes occupies a varying time in different persons; in some the hypertonus comes early in life, and in early middle age sclerosis is established. In some there is little physiological error, hypertonus is but an occasional occurrence, and sclerosis appears late in life. The capability of the arteries to contract when an excess of toxin is present is in my experience seldom lost, and that is the reason why the recognition of it in sclerosed vessels is a matter of such great practical importance. While for the present I do not deal with the behaviour of the capillaries, it is not to be understood that I ignore their presence, their reactions, or their influence in some of the conditions touched upon in this paper.

Edinburgh.

THE BACTERIOLOGY OF SPORADIC CEREBRO-SPINAL MENINGITIS.

BY WILLIAM HUNTER, M.B., C.M. ABERD.,
ASSISTANT BACTERIOLOGIST TO THE LONDON HOSPITAL;
AND
ALEXANDER W. NUTHALL, F.R.C.S.
(*From the Bacteriological Laboratory, London Hospital.*)

FOR years the etiology of meningitis was involved in obscurity. The early observations of Murchison, Richardson, and others, suggesting the origin of the disease from articles of diet, telluric influences, &c., have now only a historic interest. The more recent investigations tend to show that micro-organisms play an extremely important rôle in the production of the disease. The early bacteriological investigations, however, are of little value owing to the deficiencies then existing in technique, so that in dealing with the subject at present the investigations of Klebs, Eberth, and others may be passed over.

The first step to determine the exact micro-organismal nature of meningitis was taken by Gaucher[1] who as early as 1881 demonstrated the presence of micrococci in the blood of a patient suffering from meningitis, as well as in the meningeal exudate after death. In 1883 Leyden[2] and Ughetti[3] described, more or less accurately, the presence of large round or oval micrococci in the exudation obtained from the meninges in a case of sporadic cerebro-spinal meningitis. In 1884 these observations were confirmed by Marchiafava and Celli[4] who showed the presence of micrococci not only free in the exudate but also in the protoplasm of the leucocytes forming part of the exudation. In 1886, during an epidemic in Cologne, Leichtenstern[5] invariably found in the meningeal exudation micrococci which he likened to gonococci.

Although these investigators succeeded in demonstrating the invariable presence of large numbers of micrococci in the meningeal exudate and pial tissue, they failed to cultivate them and to determine exactly their etiological significance. This step was taken by Weichselbaum[6] who in 1887 gave the first accurate description of the apparently causative agent at work in the production of the disease. Weichselbaum investigated in all eight cases. In two of these he found diplococci which morphologically resembled pneumococci. In the remaining cases, however, no pneumococcic-like organisms were found, but diplococci which always occurred in pairs, varied much in size, and resembled gonococci. They were present for the most part in the protoplasm of the leucocytes and, what was extremely important, they decolourised when treated by Gram's method of staining. These observations were subsequently confirmed by the extensive researches of Foà and Bordoni-Uffreduzzi,[7] Goldschmidt,[8] Netter,[9] and others.

Although it was admitted by the majority of observers that a diplococcus was invariably found in the meninges in cases of meningitis, considerable difference existed as to the exact nature of the micrococcus. Many regarded it as the pneumococcus of Fraenkel or a variety of this. For instance, Foà at the Tenth International Medical Congress in Berlin in 1890 concluded that this diplococcus, or so-called "meningococcus," was simply a variety of the pneumococcus and could under certain conditions be converted into the latter and *vice versâ*. Righi,[10] Quadù,[11] and other members of the Italian school gave much support to this observation and deduced from their researches that the diplococcus found in cases of meningitis was simply a modified form of the pneumococcus, and, further, that meningitis was to be regarded as a local manifestation of a general diplococcic infection—in fact, a diplococcæmia. Further, the French school, headed by Netter, is also inclined to regard the diplococcus of Weichselbaum as a variety of the pneumococcus. The presence of these micrococci in the cells of the exudate they look upon as evidence of degeneration and phagocytosis, a view which is improbable in the light of recent research. They are supported in their observations by the work of Lenhartz,[12] Hunermann,[13] Vincenzi,[14] and others.

It is admitted that the pneumococcus may produce a meningitis or be present as a secondary infection. And this is not at all remarkable, as the pneumococcus is now known to be an organism of wide distribution. The fact, however, that meningitis often complicates pneumonia, or *vice versâ*, is no criterion that the pneumococcus is the specific agent at work in the production of the disease—cerebro-spinal meningitis—as we know it in its epidemic and sporadic forms. In reality there is every reason to believe that the diplococcus described by Weichselbaum is something very different. Further, there is much reason to doubt whether the cocci described by those who have investigated cases of meningitis were pneumococci. Kamen,[15] for instance, quotes the observations of Panienski[16] who reported in all 13 cases as due to pneumococcus, but advanced insufficient evidence to prove conclusively that the micro-organisms in question were in reality pneumococci. During the last few years the original researches of Weichselbaum have received much support and confirmation. The observations of Jaeger[17] in 1895, Heubner,[18] Councilman, Mallory and Wright,[19] and Osler[20] advance extremely strong evidence in favour of the view that Weichselbaum's diplococcus is the specific agent at work in the production of cerebro-spinal meningitis in its epidemic and sporadic forms Heubner, for instance, was able to reproduce the same train of symptoms and pathological changes in goats by injection subdurally of pure cultures of this micro-organism isolated from cases of cerebro-spinal meningitis in man.

---

[1] Gazette Médicale de Paris, 1881, No. 10.
[2] Zeitschrift für Klinische Medicin, Band vi., 1883.
[3] Giornale della Societa Italica d'Igiene, 1883
[4] Gazzetta degli Ospedali.
[5] Deutsche Medicinische Wochenschrift, 1886
[6] Fortschritte der Medicin, 1887, Band v., pp. 18 and 19
[7] Deutsche Medicinische Wochenschrift, 1886, Band xii., p. 15, and Zeitschrift für Hygiene, 1888, Band iv., p 1.
[8] Centralblatt für Bakteriologie, 1887.
[9] La France Médicale, June, 1889
[10] La Riforma Medica, 1895, No 146.
[11] Ibid., 1895, Nos 157, 168, 183, 184.
[12] Verhandlungen des 15 Congresses für Innere Medicin zur Berlin, 1897, p 325.
[13] Zeitschrift fur Klinische Medicin, Band xxxv., p. 436
[14] Centralblatt fur Bakteriologie, Band xxvi., 1900, p 561.
[15] Ibid., Band xxiv, p 545
[16] Deutsche Militärische Zeitschrift, Hf. 8 and 9.

From this review of the most important literature it is at once evident that even at present considerable difference of opinion exists as to the exact nature of the micrococci found in the meningeal exudate in cases of meningitis. Apart from the fact that cases of meningitis may under certain conditions be due to a great variety of micro-organisms, as staphylococci, streptococci, bacillus influenzæ, bacillus typhosus, bacillus coli, &c., the positions taken by the leading authorities at present may be said to be the following: the French doctrine, that cerebro-spinal meningitis in its epidemic or sporadic form may be caused either by the pneumococcus or the diplococcus intra-cellularis of Weichselbaum; the German and American doctrine, that the diplococcus intra-cellularis meningitidis of Weichselbaum is, in all probability, the specific agent in epidemic or sporadic cerebro-spinal meningitis, the pneumococcus being of secondary importance. In 1898 Still,[21] in two interesting articles on Posterior Basal Meningitis in Children, was inclined to regard this disease as merely a sporadic manifestation of cerebro-spinal meningitis. His conclusion was supported by the bacteriological examination of a number of cases in which he found the invariable presence of intra- and extra cellular diplococci. These diplococci resembled morphologically the diplococcus intra cellularis meningitidis described by Weichselbaum. Up to the present time Still's observations have received no confirmation. His conclusion that posterior basal meningitis is simply a sporadic manifestation of cerebro-spinal meningitis and is caused by Weichselbaum's diplococcus certainly warrants further investigation as his results when developed will clear up many points in regard to sporadic meningitis and its relation to the disease in its epidemic form.

Recently we have had the opportunity of examining bacteriologically cerebro-spinal fluid obtained by lumbar puncture from nine cases of meningitis in children and from one case in a young adult It was difficult from a clinical point of view to determine the exact nature of these cases of meningitis—in fact, it was impossible to say with any degree of certainty whether they were simple or tuberculous. On this account lumbar puncture was performed and the results of the bacteriological examination of the cerebro-spinal fluid obtained from these cases proved of the utmost value in regard to the determination of the exact nature of the morbid process present.

At this point we would like to express our gratitude to Dr. Percy Kidd, Dr. Gilbart Smith, Dr. Warner, and Dr. Sansom for their kindness in allowing us to make use of the cases clinically, and to Dr. Schorstein and Dr. Hadley for the large amount of pathological material which they have freely placed at our disposal.

CASE 1.—The patient, a girl, aged seven years, was admitted on Feb 17th, 1901. She had been ill for six days, suffering from headache, restlessness, and incontinence of urine. Her temperature on admission was 104° F., the pulse-rate being 148, and the respirations 36 There were marked retraction of the head, twitching movement of the facial muscles of the right side with left facial paralysis, and strabismus The fundi were normal; later, spasmodic movements of the left arm set in. Kernig's sign was present Death from exhaustion took place on Feb. 22nd. At the post-mortem examination extensive and scattered purulent exudation over the hemispheres with a large amount of purulent lymph in the inter-peduncular space was found. There was a large quantity of clear fluid in the ventricles. Over the whole length of the spinal cord there was a considerable amount of purulent exudation. The lungs showed marked broncho-pneumonia The other organs appeared to be healthy. There was no evidence of tubercle.

Lumbar puncture was performed a day or two before death. The fluid obtained was turbid and after centrifugalisation the deposit was examined microscopically for micro-organisms. Diplococci were found in fairly large numbers. Many occupied an intra-cellular position. They did not retain the stain well by Gram's method and decolourised completely by Claudius's method. A well-marked capsule was present. Considerable quantities of the fluid were transferred to tubes containing blood-serum, ascitic fluid bouillon, and glycerine agar and were incubated at 37° C.

CASE 2.—The patient was a boy, aged three years, who was admitted on Jan 30th, 1901. He had been ill for two months with progressive emaciation and frequent attacks of "cramp." The following was his condition on admission. There were marked cervical opisthotonos and strabismus, but no optic neuritis, aural discharge, or convulsions. The knee-jerks were exaggerated. There was incontinence of urine and fæces Death occurred from exhaustion on March 4th. Post mortem there was found to be slight milky opacity of the meninges over the base, but there was no marked exudation. The ventricles were much distended with clear fluid. The other organs were healthy and there was no evidence of tubercle.

Lumbar puncture was performed on Feb. 25th. The fluid obtained was clear After centrifugalisation the deposit was examined microscopically and was found to contain leucocytes and intra- and extra-cellular diplococci. Tubes of ascitic fluid bouillon, blood-serum, and glycerine agar were inoculated with large quantities of the fluid and were incubated at 37° C.

CASE 3.—The patient, a girl, aged two and a half years, admitted on Feb 14th, 1901, had been ill for two months with wasting, nausea and vomiting. Her condition on admission was one of great emaciation. There was no rigidity, retraction of the head, or paralysis, but there was apparent hyperæsthesia of the legs. She was semi-comatose. Later there were strabismus and nystagmus, but no optic neuritis, rigidity of the arm, or convulsions. Kernig's and Babinsky's signs were present. Death from exhaustion resulted. A considerable quantity of blood-stained and opalescent fluid was found post mortem in the meningeal spaces. Over the basal and posterior parts of the brain and the ventral surface of the cerebellum there was extensive purulent exudation. The cerebral convolutions were pale and flattened, the meninges covering them showing no change. There was extreme hydrocephalus The meninges covering the spinal cord, especially over the posterior columns, showed the presence of marked exudation and congestion. The other organs appeared to be healthy and there was no evidence of tubercle.

Lumbar puncture was performed on Feb. 27th. The fluid obtained was clear. The deposit obtained by centrifugalisation showed the presence of many diplococci, both intra- and extra-cellular, all of which possessed a marked capsule Tubes of blood-serum, ascitic fluid, bouillon, and glycerine agar were inoculated with considerable amounts of the fluid and were incubated at 37° C.

CASE 4.—The patient, a male infant, aged four months, admitted on March 2nd, 1901, had been for five weeks suffering from convulsions and retraction of the head. After admission there were constant diarrhœa and vomiting and marked cervical opisthotonos There was bulging of the fontanelle There was no strabismus, nystagmus, or optic neuritis Kernig's sign and Babinsky's sign were present. Since admission no convulsions had occurred.

Lumbar puncture was performed on March 8th. The fluid obtained was clear After centrifugalisation the deposit was stained with methylene blue. Capsulated diplococci were present, most of them being intra-cellular. They decolourised by Gram's method. Cultures were made exactly as in the previous cases.

CASE 5.—The patient was a girl, aged six years, who was admitted on March 8th, 1901. She had been suffering for 10 days from headache, vomiting, and general irritability. On the day of her admission she had a convulsion which was followed by coma When admitted the patient was comatose and her temperature was 101° F. The pupils were dilated and there were strabismus and nystagmus, but no optic neuritis was present The head was turned to the left. There were rigidity and rhythmic movements of the left arm and leg, but there was no rigidly of the neck. Kernig's sign was present. There was incontinence of urine and fæces. Later retraction of the head developed, with coma and slight optic neuritis. These symptoms became progressively worse and death occurred on March 13th. Post-mortem examination

---

[17] Zeitschrift für Hygiene, Band xix., 1895.

[18] Deutsche Medicinische Wochenschrift, Band xcvi., p. 423.

[19] Report of the State Board of Health of Massachusetts, Boston, 1898. American Journal of Medical Sciences, vol. cxv., p. 252.

[20] Cavendish Lecture, London, June, 1899.

[21] Journal of Pathology and Bacteriology, 1898, p. 147, and Brit. Med. Jour., October, 1898.

TABLE I.—CHARACTERISTICS OF THE DIPLOCOCCI FOUND IN THE CEREBRO-SPINAL FLUID.

—	Case 1.	Case 2.	Case 3.	Case 4.	Case 5.	Case 6.	Case 7.	Case 8.	Case 9.	Case 10.
Microscopic appearances	Cocci in pairs, tetrads or short chains, coffee-bean shaped. Division parallel to long axis of cocci	Cocci in pairs or tetrads, very variable in size Division parallel to long axis of cocci.	Cocci in pairs, and short chains, variable in size, especially in cultures. Division parallel to long axis of cocci.	Cocci in pairs, tetrads, or short chains, variable in size, coffee-bean shaped like other cases. Division as others.	Cocci in pairs or short chains, variable in size and shape, especially in cultures. Division as in other cases.	Cocci in pairs, tetrads, or short chains, very variable in size and shape, especially in cultures. Division as in other cases.	Cocci in pairs, tetrads, or chains (short), very variable in size and shape, especially in cultures. Division as before.	Cocci mostly in pairs, variable in size, coffee-bean shaped. Division as in other cases.	Cocci in pairs, tetrads, or short chains, size, and shape variable. Division as in other cases.	Cocci in pairs or short chains, very variable in size, especially in cultures Division as in other cases
Staining Characteristics	Good with fuchsin and methylene blue. Gram-Weigert + Claudius −	Good with fuchsin. Gram-Weigert − Claudius +	Good with fuchsin. Gram-Weigert + Claudius +	Good with ordinary dyes. Gram-Weigert − Claudius −	Good with ordinary dyes. Gram-Weigert − Claudius −	Good with ordinary dyes. Gram-Weigert − Claudius −	Good with ordinary dyes. Gram-Weigert − Claudius −	Good with fuchsin. Gram-Weigert + Claudius +	Good with ordinary dyes. Gram-Weigert + Claudius +	Good with ordinary dyes. Gram-Weigert −
Capsule	+ Also in cultures.	+ Also in cultures.	+ Also in cultures.	+ Also in cultures.	+ Also in cultures.	+ Also in cultures.	+ Also in cultures.	+ Also in cultures.	+ Also in cultures.	+
Relation to temperature	Best at 37° C., faint at 22° C.	Best at 37° C., faint at 22° C.	Best at 37° C., faint at 22° C.	Best at 37° C., faint at 22° C.	Best at 37° C., faint at 22° C.	Best at 37° C., faint at 22° C.	Best at 37° C., faint at 22° C.	Best at 37° C.	Best at 37° C., faint at 22° C.	Best at 37° C.
Gelatin	Minute, delicate grey-white colonies, no liquefaction.	Delicate white colonies, no liquefaction.	Extremely delicate, if any.	Minute grey-white colonies, no liquefaction.	Fine white colonies, no liquefaction.	Delicate white colonies, no liquefaction.	Delicate greyish-white colonies, no liquefaction.	Extremely little growth, no liquefaction.	As in Case 8.	Delicate grey-white colonies, no liquefaction.
Agar-agar .	Delicate, grey-white colonies irregular in shape, opaque periphery	Delicate, greyish colonies, become very transparent, otherwise like Case 1.	Greyish-white colonies, moist and tenacious, colonies run together, luxuriant growth.	Delicate greyish-white colonies, like Cases 1 and 2.	Fine greyish-white colonies like Cases 1 and 2.	Fine greyish-white colonies like Cases 1 and 2.	Fine greyish-white colonies, like Case 6	Luxuriant growth. Greyish-white, colonies run together.	As in Case 8.	Delicate greyish-white colonies.
Glycerine Agar..	Same as agar, only more luxuriant.	Same as agar, more luxuriant.	Same as agar, very luxuriant.	Same as agar.	Same as agar.	Same as agar.	Same as agar, only more luxuriant.	Same as agar.	Same as agar.	Same as agar, only more luxuriant.
Bouillon......	Slight turbidity.	Very slight turbidity.	Good growth, darkened in colour.	—	No turbidity, yet good growth.	No turbidity, good growth.	Growth, slight turbidity.	Good growth, marked turbidity.	Good growth.	Very slight turbidity.
Ascitic fluid bouillon ...	Luxuriant growth, cloudy.	Good growth, cloudy.	Luxuriant growth.	Good growth, slight cloudiness.	Luxuriant growth.	Good growth.	Growth, viscidity of blood.	Luxuriant growth.	As in Case 8.	Good growth.
Stiffened blood-serum	Good growth, colonies very transparent and greyish-white.	Growth good, greyish-white delicate colonies.	Good growth, white porcelain-like colonies, no liquefaction.	Good growth, colonies very transparent.	Very transparent colonies, greyish-white and irregular in outline.	Delicate greyish-white colonies like Case 1.	Good growth, colonies very transparent.	Good growth, no liquefaction.	As in Case 8.	Good growth, grey-white colonies, no liquefaction.
Milk	Growth, no change.	—	Growth, no change.	—	—	—	—	—	—	Growth, no change.
Litmus	Growth, no acid production.	—	Growth, no acid production.	—	—	—	—	—	—	Growth, no acid production.
Potato.........	No apparent growth. Cocci abundant.	—	Slight viscid growth.	—	—	—	—	—	—	—
Length of life	At least 40 days.	At least 30 days.	—	—	—	—	—	—	—	—
Presence of other micro-organisms	—	A minute, non-motile, non-Gram staining bacillus. Probably bacillus influenzæ	—	A minute bacillus as in Case 2. Very like bacillus influenzæ.	Staphylococcus albus and citreus also present.	Tubercle bacilli. Marked tuberculous meningitis.	—	Large capsulated non Gram staining bacillus, also probably bacillus influenzæ.	Staphylococcus albus and aureus and large non-Gram staining bacillus.	—
Experimental inoculation	*White mouse*: ½ c.c. of 48-hours' ascitic fluid culture intra-peritoneally; *no result.* *Guinea pig*: 1 c.c. of same subcutaneously; *no result.* *Guinea-pig* 1 c.c. of same intra-peritoneally; *no result.*	*White mouse*: ½ c.c of 48-hours' emulsified agar culture intra-peritoneally, *no result.* *Guinea-pig*: 1 c.c. of same subcutaneously; *no result* *Guinea-pig*: 1 c.c. of same intra peritoneally; *no result.*	*White mouse*: ½ c.c. of 48-hours' bouillon culture intra peritoneally; *no result.* *Guinea-pig*: 1 c.c of same subcutaneously; *no result.* *Guinea-pig*. 1 c.c. of same intra peritoneally; *no result*	*White mouse*: ½ c.c. of 48-hours' ascitic fluid culture intra-peritoneally; *no result* *Guinea-pig*: 1 c.c. of same subcutaneously; *no result.* *Guinea pig*: 1 c.c of same intra-peritoneally; *no result.*	*White mouse*: ½ c.c. of 48-hours' emulsified agar culture intra peritoneally; *no result.* *Guinea pig*: 1 c.c. of same subcutaneously; *no result* *Guinea pig* 1 c.c. of same intra-peritoneally, *no result.*	—	—	—	—	*White mouse*: 1 c.c. of 48-hours' ascitic fluid culture intra-peritoneally; *no result.* *Guinea-pig* 2 c.c. of same intra peritoneally; *no result.* *Rabbit*: 2 c.c. of same intra-peritoneally and subcutaneously; *no*

showed marked congestion of, and exudation into, the meninges, especially over the basal regions of the brain. There was no marked exudation over the cerebral hemispheres. The ventricles contained an excess of clear fluid. There was no evidence of tubercle in the cranial cavity. The pericardium contained an excess of blood stained fluid. Its surface was granular owing to the presence of large numbers of small, sharply defined, greyish-white nodules which proved to be tuberculous. The neighbouring mediastinal lymph glands were the seat of marked caseation and from them the tuberculous process could be traced to the pericardium. The lungs were slightly œdematous. There was no evidence of tubercle. The other organs were apparently healthy.

Lumbar puncture was performed on the day on which the patient was admitted and it was followed by improvement in the general condition which lasted for a few hours. The deposit obtained after centrifugalisation of the fluid contained diplococci as in the previous cases. Cultures were made as before.

CASE 6.—The patient, a boy, aged one year and nine months, was admitted on March 13th, 1901. He had been ill for three months and had suffered from cough, general irritability, and retraction of the head. There was a history of congenital syphilis. On admission the child had convulsions, retraction of the head, a bulged fontanelle, and spasmodic movements of the left arm and leg. Kernig's sign was present, but there was no strabismus or optic neuritis The condition of the patient became rapidly worse and death took place on March 17th from exhaustion. Post mortem there was found to be considerable exudation into the meninges over the basal and posterior parts of the brain, but there was little or no change in the meninges over the cerebral hemispheres. The meninges around the basal and posterior parts of the brain were crowded with small grey tubercles. The ventricles contained an excess of lymph-like fluid. The thoracic and abdominal organs were the seat of an advanced miliary tuberculosis

Lumbar puncture was performed on March 14th. No diplococci were found on examination of the fluid immediately after it was withdrawn. The fluid was therefore incubated at 37° C. for 24 hours, after which diplococci were found in considerable numbers. Cultures were made as before.

CASE 7.—The patient was a female infant, aged three months, who was admitted on March 12th, 1901. The illness had lasted for five weeks with wasting and cough. Convulsions and vomiting had been present for a week before admission. On admission there were retraction of the head and strabismus but no optic neuritis. Kernig's sign was present.

Lumbar puncture was performed on March 15th. No diplococci were found in the fluid immediately after withdrawal. As in the preceding case, the fluid was incubated at 37° C. for 24 hours, after which microscopical examination of the deposit showed the presence of many capsulated diplococci Cultures were made as before.

CASE 8.—The patient, a boy, aged one year, was admitted on Feb. 28th, 1901. He was suffering from broncho-pneumonia A week after admission strabismus, retraction of the head, and general rigidity developed. Kernig's sign was present.

Lumbar puncture was performed on March 15th. The fluid obtained was incubated at 37° C. for 24 hours, after which diplococci were found as in the other cases. Further, a large capsulated and rod-shaped micro-organism and a small, non-motile bacillus were found. Like the diplococci, they did not retain the stain by Gram's method Cultures were prepared as before.

CASE 9.—The patient, a female infant, one month old, was admitted on March 11th, 1901, suffering from convulsions. Death took place three hours after admission. Post mortem there was found to be extensive purulent exudation into the meninges over both cerebral hemispheres. The ventricles were distended with fluid. The exudation was examined bacteriologically at once and was found to contain diplococci, many of which were intra-cellular. Cultures were made as in other cases.

CASE 10.—The patient was a woman, aged 38 years, who was admitted on March 29th, 1900, complaining of headache, vomiting, and rash on the arms and legs. On admission there was marked retraction of the head. No convulsive movements were present, nor was there strabismus, optic neuritis, paralysis, or anæsthesia. While under observation she had repeated attacks of pain in the head and the back, accompanied by marked retraction of the head, profuse perspiration, inequality of the pupils, and delirium. The symptoms gradually improved and the patient was discharged on June 9th.

Lumbar puncture was performed on May 31st by Mr. F. S. Eve and from the fluid obtained numerous intra- and extra-cellular diplococci were found. Cultures were made as in the other cases.

Further details with regard to all of the foregoing cases are given in Table I. which is a short summary of the morphological and biological characteristics of the diplococci found in the cerebro-spinal fluid obtained from the cases.

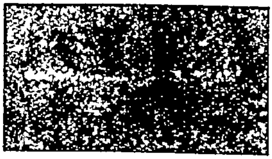
From this table it is evident that there exist two more or less definite varieties of diplococci which from their staining reactions and cultural peculiarities may be distinguished from each other:—

TABLE II.

—	Type A.	Type B.
Staining characteristics	Gram-indefinite, usually negative.	Gram-positive.
Agar and glycerine agar	Growth extremely delicate; colonies are very transparent.	Growth luxuriant; colonies are viscid and tend to run together.
Gelatin	Growth very delicate; no liquefaction.	Growth slight, if any; no liquefaction.
Bouillon	Growth slight.	Growth good; marked turbidity.
Stiffened blood serum	Growth resembles that on agar.	Growth good; colonies porcelain like
Potato	Slight growth; invisible	Growth good; viscid.
Cases......	1, 2, 4, 5, 6, 7, 10.	3, 8, 9.

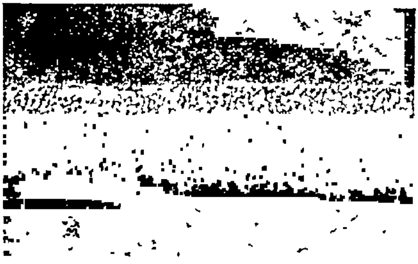
These results correspond more or less accurately with the descriptions given recently by Pfaundler[22] who distinguished two distinct varieties of diplococci in the cases which he examined. He tabulated the micro-organisms described by previous investigators and found that they could be grouped under two heads. Thus, the diplococci found by Weichselbaum, Bernheim and Moser, and Councilman and Pfaundler (three cases) formed one group, the

FIG. 1.



Type A, growth on agar, 48 hours old.

FIG. 2.



Type B, growth on agar, 48 hours old.

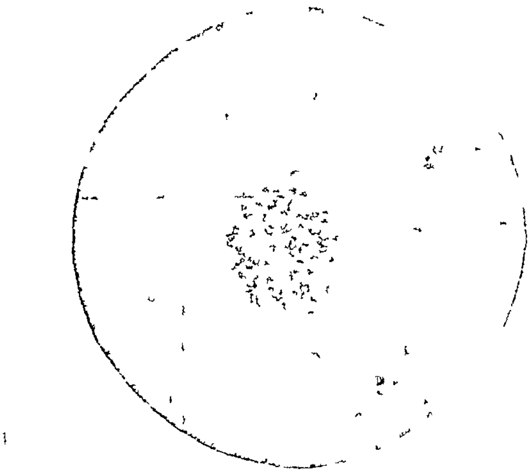
---

[22] Jahrbuch für Kinderheilkunde, Band xlix, 1899, p. 264.

characteristics of which correspond almost exactly with our Type A, while those diplococci described by Jaeger, Heubner, Urban, Still, and Pfaundler (two cases) formed a second group which corresponds with our Type B.

Although the diplococci found by us are easily divisible into two groups, we have every reason to believe that they represent probably one and the same micro organism.

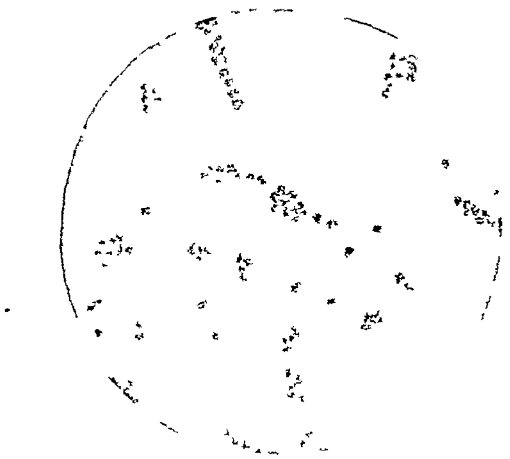
FIG. 3.



Polymorpho-nuclear leucocyte containing diplococci.

Morphologically no point of distinction is to be made out. Their resemblance to gonococci, their extreme variability in size and shape, combined with the invariable presence of a marked capsule even in cultures, all point to their similarity. The fact that the majority of strains (Cases 1, 2, 4, 5, 6, 7, and 10) present extreme delicacy in growth on such media as agar, glycerine agar, and blood serum, &c., and that the remaining strains (Cases 3, 8, and 9) grow more luxuriantly on the above mentioned media, does not seem to warrant us in drawing any absolute distinction between the two varieties or in disproving their identity. Our own results would rather seem to show that they are one and the same micro organism, and that the differences noted in the types described are only those which are constantly being met with in the fuller knowledge of any micro-organism. Further, the cases presented no corresponding points of distinction clinically, and we are inclined to agree with Pfaundler that, although slight differences are to be observed in regard to the biological characters of the micro-organism, they are without influence on the course of the disease.

FIG. 4.



Diplococcus intracellularis in pure culture, stained by Gram's method.

A point of extreme interest in regard to those diplococci is the constant negative result obtained by experimental inoculation. Even although large doses of living cultures of the diplococci were introduced intra-peritoneally as well as subcutaneously into mice, guinea-pigs, and rabbits, absolutely no lethal result was obtained. Unfortunately we did not have it in our power to extend the interesting results obtained by Heubner who succeeded in producing an undoubted cerebro-spinal inflammatory process by subdural inoculation in goats of diplococci isolated from cases of cerebro spinal meningitis in man. Although we have always succeeded in isolating the diplococcus, in only four of the cases has it been present in pure culture. The following is a summary of the results which we have obtained. In four cases (Cases 1, 3, 7, and 10) the diplococcus was present in pure culture. In three cases (Cases 2, 4, and 8) the diplococcus was associated with a bacillus which from its morphological and staining characteristics we are inclined to regard as the bacillus influenzæ Pfeiffer. In two cases (Cases 8 and 9) the diplococcus was associated *with a large capsulated bacillus which morphologically* and biologically agreed with the descriptions given by Centanni and Neumann[23] of a bacillus called "bacillus meningitidis," and found by them in the meningeal exudate in cases of meningitis. In two cases (Cases 5 and 9) the diplococcus was associated with ordinary pyogenic cocci, probably the result of accidental contamination. In one case (Case 6) the diplococcus was associated with the bacillus tuberculosis.

These results are in entire harmony with the observations of other investigators. The association of a bacillus which from our researches we have reason to believe was the bacillus influenzæ with the diplococcus intra-cellularis is interesting. Although Pfuhl,[24] Nauwerk,[25] Högerstedt,[26] Leichtenstern,[27] and others have demonstrated the presence of Pfeiffer's bacillus influenzæ in the meningeal exudate in cases of suppurative meningitis and even go so far as to believe in the existence of a specific form of meningitis—meningitis grippalis—only two cases have been reported up to the present where this micro-organism has been demonstrated by lumbar puncture—one by Slawyck,[28] a case of general influenzal infection, lumbar puncture being performed owing to the severity of the meningeal symptoms the other by Lander[29] who investigated a similar case.

Within recent years it has been shown that the association of the diplococcus intra-cellularis with the bacillus tuberculosis is by no means uncommon. Since Holdheim[30] demonstrated this fact quite a large number of confirmatory and detailed accounts have been given—notably by Heubner,[31] Lenharz,[32] Netter,[33] and quite recently by Pfaundler. Not only have some of these observers found this association in the meningeal exudation post mortem, but also in the cerebro spinal fluid obtained by lumbar puncture during life. In our case there was no question as to the existence of a general tuberculosis. The liver, the spleen, the lungs, and the kidneys were crowded with typical miliary tuberculous nodules and the meninges, especially around the posterior and basal parts of the brain, were the seat of a definite tuberculous process. This case clearly shows the importance of making a thorough bacteriological investigation during life as well as post mortem. If no such examination had been undertaken the case would undoubtedly have been regarded as an uncomplicated case of tuberculous meningitis. The examination of the cerebro-spinal fluid during life combined with that of the meninges post mortem, however, conclusively proved that the case was one of mixed infection.

In Case 5 an interesting result was obtained post mortem. Lumbar puncture was made during life and the cerebro-spinal fluid was found to contain large numbers of typical diplococci Post mortem the meninges showed the expected posterior and basal exudation. No evidence of tubercle was present. On examining the thorax, however, the pericardium was found to be the seat of a marked tuberculous process and the neighbouring mediastinal lymph glands were the seat of caseation. From the latter the tuberculous process could be traced to the pericardium. The other organs were healthy.

In conclusion we would urge the following: 1. *That in all* the cases of meningitis examined by us a diplococcus has [illegible] spinal fluid. In nine of these [illegible]

---

[23] Migula.

[24] Zeitschrift für Hygiene, Band xxvi.

[25] Centralblatt für Bakteriologie, Band xviii., p 395

[26] Högerstedt. Cited by Netter.

[27] Nothnagel's Pathologie und Therapie, 1896 Band iv, p 123.

[28] Zeitschrift für Hygiene, 1899 Band xxxii., p 443

[29] Jahrbuch für Kinderheilkunde, 1901, p 91.

[30] Deutsche Medicinische Wochenschrift, 1896

[31] Ibid, 1897 [32] Ibid, 1897

[33] Twentieth Century Practice of Medicine, vol. xvi.

coccus was present in pure culture, in others associated with other micro-organisms—e g, bacillus influenzæ and bacillus tuberculosis. 4. That the clinical picture and the pathological changes found in these cases are those met with in so-called "posterior basal meningitis." 5. That in all probability "posterior basal meningitis" is simply a sporadic manifestation of cerebro spinal meningitis and is produced by the same micro-organism—namely, the diplococcus intracellularis meningitidis.

ON THE OPERATIVE TREATMENT OF CORNEAL ASTIGMATISM

BY A BREUER, M D FREIBURG, M R C S ENG, L R C P LOND

THE changes in curvature of the cornea resulting from operations—e g, extraction of cataract, iridectomy, &c—are well known. Although these changes are lessened as time goes on, still a very considerable part of them remains permanent. In the now often practised operation for high myopia the ophthalmic surgeon has taken care so to localise the incision as to produce the minimum of astigmatism, or if a marked degree of astigmatism was present before the operation to diminish it by the incision.

Several authors (Bates,[1] Pflüger,[2] Lucciola[3]) have attempted to cure astigmatism by corneal incisions with the keratome or with a Graefe's knife. The incisions were usually made at one or both ends of the meridian of stronger refraction. In some cases the astigmatism became less and even disappeared completely. Similar observations were made by Bocci[4] and Laus[5] in the rabbit. The last named author studied the effects of a perforating wound made with the keratome and of a non perforating wound made with the galvano cautery, advocating the latter. Reymond[6] studied the effect of incisions in the limbus corneæ and of sub conjunctival scarification of the sclera (from three to four millimetres behind the limbus). He collected his results as follows. The result of an incision depends on its location, whether in the sclera, the limbus, or the periphery of the cornea. The curvature is always changed in both meridians, the one which contains the incision and the one perpendicular to it. Incisions in the outer border of the limbus corneæ and sclera generally produce an increase of curvature in the corresponding meridian, those in the clear cornea a decrease of curvature (lengthening of the corneal radius).

Within the last three years I have always noted the refraction of the cornea in the visual line in the two principal meridians before and after any operation by means of Javal's ophthalmometer (Kagenaar, Utrecht). Without a single exception I found that corneal incisions made, *for instance*, in the vertical meridian lessen the refraction of that meridian and increase at the same time that of the horizontal. If the incision is made in the limbus or still a little further peripherally, as in iridectomy for glaucoma, the effect is small; the more the incision approaches the centre of the cornea the greater the effect. All my observations were made on eyes free from any apparent previous disease such as trachoma, scrofulosis, ulcers, &c. In order to study the changes more closely I measured the curvature of the cornea not only in its visual centre, but in points 5°, 10°, and 15° distant from it along the principal meridians. In representing these measurements by a curve I followed Sulzer's[7] suggestion. He recorded his measurements in the so-called "diagramme dioptrique." First he measures the refraction of the two principal meridians (mostly vertical and horizontal) at the point where the visual line passes through the cornea while the patient looks at the centre of the ophthalmometer. Next the patient is asked to look in succession at points situated in the principal meridians at 5°, 10°, and 15° towards the nasal and temporal side, above and below the axis of the ophthalmometer. We can utilise as an object for fixation the division on the keratoscopic disc of Javal's ophthalmometer (model 1889), or white dots can be marked on a piece of wire fixed to the instrument in the principal meridians at 5°, 10°, and 15° from its axis. As the reflected corneal images become too indistinct when measuring beyond 20° from the centre only a small central part of the cornea can be represented in this manner. A distance of 15° is considered quite sufficient by Sulzer (15° = 2 millimetres in corneæ of medium refraction). For each of the above points the refraction is measured by bringing the two central images in contact in the centre of the vision-field of the instrument; the number of dioptres is read off on the division of the arc. The measurement will become plain in the accompanying diagrams. The horizontal (abscissa) of the two intersecting straight lines serves as a basis for the diagram of the horizontal meridian or that which is nearer to the horizontal one. The figures 5, 10, 15, show the distance in angles of the points measured from the visual line of the cornea. Each division on the vertical line represents one dioptre. For simplification the figure 40 (dioptres) is placed at the intersection of the vertical and horizontal lines; therefore the refraction of the points measuring more than 40 D is marked above, and that of those measuring less than 40 D below, the horizontal axis. The observations for the temporal half of the right eye are marked on the right side of the diagram, those for the nasal half on the left side. For the left eye the marking is reversed, so that the diagram represents the cornea as the patient would see it in a plane mirror. After having marked the refraction for the different points measured these marks are united by a plane curve. In order to register the refraction of the vertical meridian the arc of the ophthalmometer and the diagram are turned 90°. The vertical line of the diagram, which becomes horizontal now, represents the angular distances, while the axis previously horizontal marks the dioptres. The first diagram illustrates the changes in corneal curvature after an iridectomy for glaucoma.

CASE 1. *Glaucoma chronicum simplex*.—The patient was a man, aged 59 years. T + 1. Ophthalmometer L $\pm$ 0 (i e, no corneal astigmatism). When any axis is mentioned it is the one of less refraction. The axis is marked as follows: ($\underbrace{180\ \text{R}\ 0}\underbrace{0\ \text{L}\ 180}$) Retinoscopy, L $\lfloor^{+0.5}_{\;0}$. VL = $\frac{6}{12}$ + 0.5 cyl — = $\frac{6}{9}$. The continuous curve I in Fig 1 shows the corneal curvature before the operation. In both meridians the refraction at the section of cornea with visual axis is about 43 D. On June 6th, 1900, iridectomy upwards for left glaucoma was performed. Normal healing followed an incision with a medium sized bent keratome. A week later the corneal refraction was *measured, and it is represented by the dotted curve II*. We see that the refraction of the vertical meridian is diminished in all the seven points measured. While this diminution is about 1.2 D in the centre it amounts to about 3 D at the upper end of the curve, the one nearest to the incision. In the horizontal meridian, however, the corneal refraction is increased all along the line by about 1 to 1½ D. Javal: L | $\pm$ 1.5. Retinoscopy: L $\lfloor^{+1.0}_{\;-1.5}$. V L < $\frac{6}{12}\frac{+0.5\text{ sph}}{-2.0\text{ cyl.}}$ < $\frac{6}{9}$. Curve III (interrupted line - - - - - -) shows the changes three weeks later. All are a little lessened, but in the same direction. Javal 80° $\pm$ 1.0. V L = $\frac{6}{12}\frac{+0.5\text{ sph}}{-1.0\text{ cyl}}$ | = $\frac{6}{9}$. All these changes are comparatively small owing to the peripheral position of the incision. Very much more marked are the changes after a corneal incision, as shown in Fig 2.

CASE 2. *Myopia summa*.—The patient was a man, aged 38 years. Javal R — $\pm$ 0.5. V R < $\frac{6}{60}$ − 24.0 sph = $\frac{6}{24}$. Fig 2. Curve I (continuous line) before operation. Discissio lentis, puncture in the horizontal meridian in the temporal part of the limbus corneæ. Extractio cataractæ linearis 10 days later, a vertical incision from three to four millimetres long in the temporal half of the horizontal meridian two millimetres from the limbus. Curve II (dotted line). recorded seven and a half weeks after first operation. We notice the same changes—i.e., diminution of refraction in the meridian of the incision (horizontal), especially marked in the temporal half of the curve (the one nearest to the incision); increase of refraction in the vertical meridian. The changes were undoubtedly more marked shortly after the operation, but the diagram could not be taken until the cataract was sufficiently absorbed to enable the patient to fixate correctly. Javal: 20° ± 3 5. V.R. = $\frac{6}{18}\,\frac{+\,1{\cdot}5\text{ sph.}}{-\,2\;5\text{ cyl. }20^\circ} = \frac{6}{12}$.

---

[1] Archiv [illegible]

[2] [illegible]

[3] [illegible] ent dans la

[4] [illegible] Academia di

[5] Archiv für Ophthalmologie xlv., I., p. 117.

[6] Über die Operative Behandlung kleiner Krümmungsfehler der Hornhaut. Klinische Monatsblätter für Augenheilkunde, November, 1899.

[7] La Forme de la Cornée Humaine et son Influence sur la Vision. Archives d'Ophtalmologie, 1897.

It is well known that by far the greater part of astigmatism is under normal conditions due to faulty curvature of the cornea. Astigmatism caused by irregular contraction of the ciliary muscle has never been proved.[8] Any plan, however, to cure astigmatism by perforating corneal incisions based on experience gained by other operations seems to me to be wholly unjustifiable on account of the danger involved with any perforating wound. Incidental experiences when cauterising a corneal ulcer or infiltration induced me to try galvano-caustic. I employed the ordinary loop of fine platinum wire, presenting at its tip a surface of about one millimetre. The instrument is connected with the electric main (alternating current) by a transformer and a rheostat. Dull red heat was employed. A small punctiform burn was effected in the limbus or in the cornea, penetrating to about one-half of the corneal thickness. The small operation was performed under local (cocaine—holocaine) anæsthesia. In some cases I found it advisable to mark the point chosen for cauterisation by a small superficial abrasion and subsequent staining with fluorescin. The marking was done while the patient looked at a distant (five metres) object straight in front of him in the horizontal plane, so as to obviate torsion movement of the eyeball. The cauterisation itself lasted from two to three seconds. The effect was in all cases exactly the reverse of what took place by incision. The following case will illustrate this.

CASE 3. *Hypermetropic astigmatism.*—The patient was a girl, aged nine years. Javal: R. 170° ± 3·5. Retinoscopy: $\lfloor^{0}_{\,+4{\cdot}0}$ V.R. = $_{24}$ + 3·5 cyl. | = $\frac{6}{12}$. Continuous curve I before operation. A punctiform cauterisation was made in the horizontal meridian at two places about one and a half millimetres distant from the outer and the inner limbus respectively. The immediate result as measured by the ophthalmometer was R. | ± 2·0. The treatment consisted of instillations of homatropin, bathing the eye with warm boric acid lotion, and a monocular bandage for two days. Two days after the operation the dotted Curve II was taken (Fig. 3). Javal: R. | ± 1·5. It will be seen that the horizontal meridian shows a considerable increase of refraction, the vertical one showing a diminution of lesser extent. The changes are exactly the reverse of those after corneal incision. Four days after the operation the condition was—Javal: R. 170° ± 0·5. Retinoscopy: $\lfloor^{+1{\cdot}5}_{\,+\,1\,5}$. Eight days after the operation—Javal: R. 170° ± 0·75. V.R. = $\frac{6}{12}$ + 1·25 = $\frac{6}{9}$. Six weeks after operation—Javal: R. — ± 1·5. Retinoscopy: $\lfloor^{+1{\cdot}0}_{\,+\,2\,0}$. As in incisions the immediate effect decreases after a short time, but a permanent result is always left. The immediate effects of the operation as well as its decrease afterwards are, however, very much greater than in the case of incisions. It will be noticed later that this decrease is not so marked in adults. Owing to the great increase in refraction of the operated meridian and the slight decrease of the one perpendicular to it, the eye becomes necessarily more myopic—i.e., less hypermetropic. The left eye of the same patient presents changes very similar after the operation. Javal: L. — ± 3 75. Retinoscopy: L. $\lfloor^{0}_{\,+4{\cdot}0}$ V.L. = $\frac{6}{24}$ + 3·5 cyl. | + $\frac{6}{12}$. Operation as in the right eye—i.e., punctiform cauterisation of the cornea at both ends of the horizontal meridian about one and a half millimetres from the limbus. Immediate effect: L. ± 1·5. Two days after the operation: L | ± 0 5. Six days after operation: L — ± 0 5. Retinoscopy: $\lfloor^{+2{\cdot}0}_{\,+2\,0}$ V.L. = $\frac{6}{12}$ + 1·5 = $\frac{6}{9}$. Six weeks after operation: L. — ± 1 25. Regrettable is here again the partial loss of the first operative result. However, the little girl, who before the operation was obliged to wear glasses always, uses them now for near work only. Another slight cauterisation performed three months later has removed the remaining astigmatism and the refraction of both eyes is now + 2 0 D. sph. $\left.\begin{array}{l}\text{V. R.}\\ \text{V. L.}\end{array}\right\} = \frac{6}{9} + 1{\cdot}5 = \frac{6}{6}$.

CASE 4. *Mixed astigmatism.*—Curve I, Fig. 4, before operation. Javal: R. — ± 3·5. Retinoscopy: R. $\lfloor^{-\,2{\cdot}0}_{\,+\,1{\cdot}0}$ V.R. = $\frac{6}{36}\,\frac{+\,1{\cdot}0\text{ sph.}}{-3\;0\text{ cyl.}\,-} = \frac{6}{12}$. The patient, aged 42 years, complained of neuralgic pains over the eyebrows, especially when she left off her glasses. Punctiform cauterisation at both ends of the horizontal meridian of the cornea one millimetre distant from the inner and outer limbus was performed, the cauterisation wound in the temporal half of the cornea being rather deeper. The immediate result was R. | ± 1 0. On the day after operation: R. — ± 0·5. Three days after operation: R. 170° ± 1·0. Curve II taken. The increase in the refraction of the horizontal meridian was very much more marked in its temporal half (the right half of Curve II) simply because the cauterisation in that part of the cornea extended deeper into the tissue (Fig. 4). Six days after operation: R. 170° ± 1·0. Retinoscopy: R. $\lfloor^{-\,1{\cdot}0}_{\,-\,0{\cdot}5}$. V.R. = $\frac{6}{12}\,\frac{+\,0\;5\text{ sph.}}{-\,0\;5\text{ cyl. }-} < \frac{6}{6}$. Ten weeks after operation: R. 170° ± 1·5. V.R. < $\frac{6}{12}$ - 0 75 cyl. axis 170° = $\frac{6}{9}$. Three months after operation: R — ± 1·5 V.R. = $\frac{6}{12}$ — 1·0 cyl. axis — = $\frac{6}{9}$. Left eye of the same patient—Javal: 10° ± 2 5. Retinoscopy: $\lfloor^{-\,1{\cdot}0}_{\,+1{\cdot}0}$ V.L = $\frac{6}{12}\,\frac{+\,0\;75\text{ sph.}}{-\,1{\cdot}5\text{ cyl. }-} = \frac{6}{6}$. Curve I, Fig. 5, before operation. Operation as in right eye. Immediate result: L. | ± 1 5 Three days after operation: L. ± 0 25. Curve II taken It is rather difficult to make the cauterisation wound on both sides perfectly equal and we see here again a considerable difference in the increase of refraction between the two sides of Curve II. Eight days after operation: L. — ± 0·5. Retinoscopy: L. $\lfloor^{0}_{\,0}$. V.L. = $\frac{6}{6}$. One month after operation: *status idem*. Ten weeks after operation: L. — ± 0 75. Retinoscopy: L. $\lfloor^{0}_{\,0}$. V.L. = $\frac{6}{6}$. Four months after operation: L. — ± 1 0. V.L. = $\frac{6}{6}$ — 0·5 cyl. — = $\frac{6}{6}$. The patient goes about without glasses with comfort.

CASE 5. *Compound hypermetropic astigmatism.*—The patient, about 30 years of age, complained of neuralgic pain in the right eye. Javal: R. ± 0. Retinoscopy: R. $\lfloor^{+2\,5}_{\,+\,0\,5}$. V.R. = $\frac{6}{36}\,\frac{+\,2\;0\text{ sph.}}{-\,2{\cdot}0\text{ cyl. }|} = \frac{6}{18}$. Left eye normal. Emmetropic. V.L. = $\frac{6}{6}$ Punctiform cauterisation of the right cornea in the upper part of the vertical meridian, one and a half millimetres from the limbus. Three days after operation—Javal: R. — ± 2·5. Retinoscopy: R. $\lfloor^{+1\,5}_{\,+1\,5}$. V.R. = $\frac{6}{6}$ + 1 0 = $\frac{6}{6}$. Curve II taken. This was one of the rare cases in which the astigmatism was not due to abnormal curvature of the cornea. Although there was no corneal astigmatism before the operation examination by the direct method, by retinoscopy as well as by test-types, proved an astigmatism of 2 D. to be present. There was no subluxation of lens (Fig. 6). The operation decreased the curvature of the horizontal meridian, increasing it in the vertical; and we find afterwards corneal astigmatism 2 5D; total astigmatism, none. I have not seen the pa[illegible]ient since, as she left Europe. I heard, however, from her [illegible] three months after the operation that the right eye was the[illegible]n quite comfortable and that she could see much better with it than she could before the operation.

CASE 6.—*Myopic astigmatism.*—The patient was a woman, aged about 30 years. Both eyes Javal: — ± 1·5. Retinoscopy: $\lfloor^{-\,1\,0}_{\,0}$. V. = $\frac{6}{12}$ - 1·0 cyl. — < $\frac{6}{6}$. Fig. 7 repr[illegible]esents the right eye. Both corneæ were cauterised at one [illegible] only in the horizontal meridian one millimetre from the tem[illegible]al limbus. As before, the corneal curvature (refraction) [illegible]

---

[8] Cf. Hess.

FIG 1

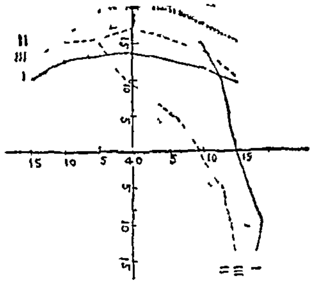


FIG 2

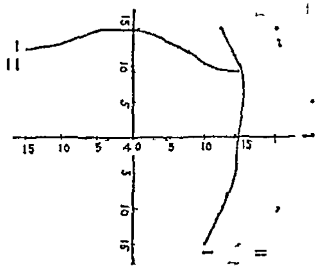


FIG 3

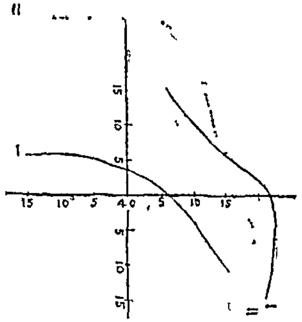


FIG 4

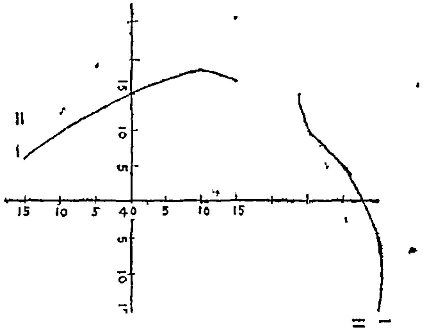


FIG 5

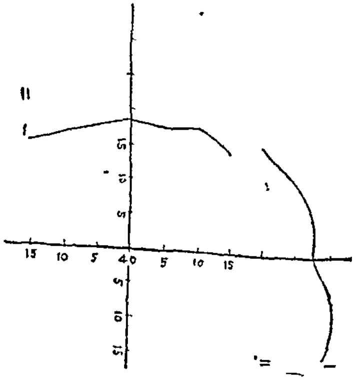


FIG 6

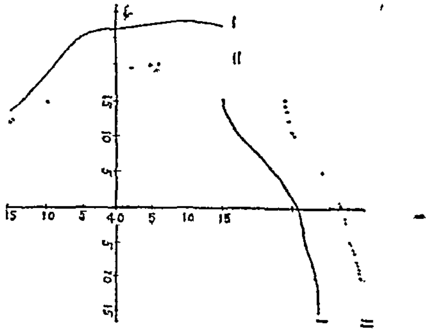


FIG 7

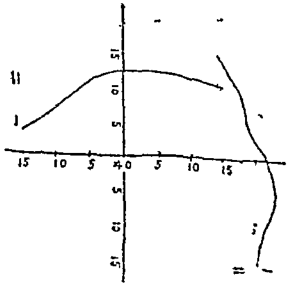
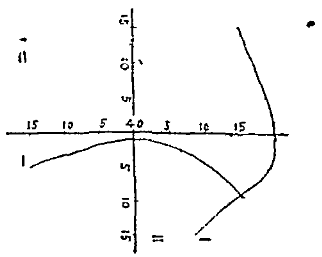


FIG 8



meridian operated upon, decreasing in the other. Immediate result: R | ± 1 5. L | + 2 0. A fortnight later: R. — ± 0·5. R. $\big\lfloor^{-0\cdot5}_{\quad-0\,5}$. V.R. < $\frac{6}{6}$ − 0·25 = $\frac{6}{6}$. L. ± 0. L. $\big\lfloor^{-0\,5}_{\quad-1\,0}$. V.L. = $\frac{6}{9}$ — 0 5 cyl. | = $\frac{6}{6}$. A month after the operation both eyes were about equal. Refraction — 0 5 D. sph. The patient is quite comfortable without any glasses.

CASE 7. *Mixed astigmatism; axis oblique.*—The patient was a man, aged 60 years. Right eye normal. L. 30° ± 4·5. V.L. = $\frac{6}{36}$ $\frac{+\,3\,0\text{ sph.}}{-4\cdot0\text{ cyl. }30^\circ}$ < $\frac{6}{12}$. Fig. 8, Curve I, before operation. Punctiform cauterisation of the cornea at both ends of 30° meridian, two millimetres from the limbus. Immediate result: L 110° ± 2 5. Three days later: L. 110° ± 1·5. Curve II taken. Three weeks later: L. 35° ± 0 5. V.L. = $\frac{6}{12}$ + 1 0 = $\frac{6}{9}$.

Ten other cases operated upon by me in the same manner showed very similar results. The cauterisation wound invariably healed in from one to two days. About three weeks after the operation the scar could be detected only by a very close inspection or by focal illumination. I selected only those cases for operation in which there was a reasonable chance that the patient could do without glasses afterwards. Therefore the operation is limited to cases of compound hypermetropic and mixed astigmatisms. The best results are obtained in the former cases, the patients losing their astigmatism and becoming less hypermetropic or emmetropic. It is always necessary to produce a considerable over-effect, as a considerable part of the first result disappears in time. The part which is lost seems to be greater in children than in adults. Further, the more superficial and peripheral the cauterisation the more likely is the result to disappear in time. If, however, the cauterisation extends through about one-half of the corneal thickness a permanent result will be obtained. I may mention that in some cases the result was perfect eight months after the operation. It stands to reason, however, that a longer observation—a careful discrimination as to the patient's age, sex, and state of health—would add much greater verification and value to the suggestions made above. I feel, however, justified in advising the operation for cases of compound hypermetropic astigmatism of considerable degree. Under those conditions the patient is, at any rate, sure to lose a good deal of his astigmatism and hypermetropia so as to enable him in most cases to dispense with the constant wearing of glasses. With ordinary precautions there is no risk attached to the operation.

Finsbury-circus, E C.

A FURTHER NOTE ON

THE TECHNIQUE OF THE QUANTITATIVE ESTIMATION OF THE BACTERICIDAL POWER OF THE BLOOD,

AND (INCIDENTALLY) ON THE POSSIBLE APPLICATION OF SUCH ESTIMATIONS TO THE STANDARDISATION OF BACTERIAL VACCINES.

BY A. E. WRIGHT, M.D. DUB.,
PROFESSOR OF PATHOLOGY, ARMY MEDICAL SCHOOL, NETLEY.

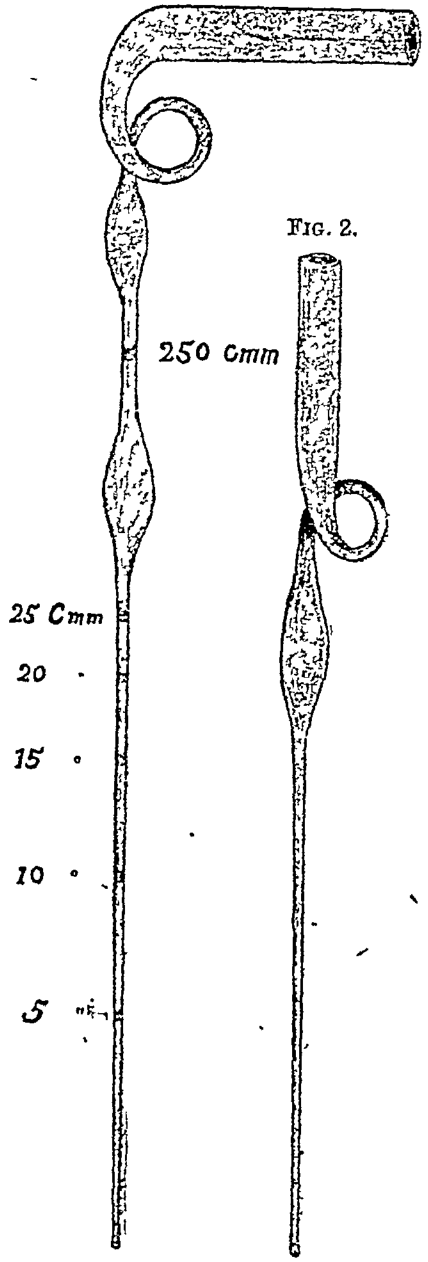
THIRD COMMUNICATION.[1]

IN my last communication I described a method by which the bactericidal power of the blood could be quantitatively determined. The procedure in question consisted essentially of three operations. In the first a series of minimal volumes of serum were mixed with a series of graduated dilutions of a broth culture, in each case in a capillary tube. In the second operation, the survival or destruction of the bacteria was tested after they had been in contact with the serum for any desired period by blowing out the contents of the tube, either into sterile broth or on to the surface of agar. In the third operation the number of the bacteria present in the culture employed for the determination of the bactericidal power was elicited by mixing in a capillary tube a measured volume of diluted broth culture with an appropriate volume of gelatin, and by counting the colonies which developed.

In the course of further daily occupation of the question of the quantitative estimation of the bactericidal power of the blood I have been able to introduce certain simplifications into the methods. The first of the modifications in question consists in substituting the spiral of glass shown in Fig. 2 for the cotton-wool plug previously employed for protecting the interior of the tube against contamination. The moulding of this spiral involves practically no additional labour. The time occupied in plugging the tubes with cotton-wool and sterilising them in the flame is thus saved, while the interior of the tube is quite as effectively guarded against contamination as is the case when the cotton-wool plug is employed.

FIG. 1.

FIG. 2.



The method of determining whether bacteria have or have not survived their contact with the serum has been simplified as follows. After the bacteria have been in contact with the serum for the desired period sterile broth is introduced into the tube in sufficient quantity to fill up the mixing chamber. This done, the tube itself is employed as a cultivation tube. The manipulations required for the purpose of filling up the tube with broth are of a nature which will present no difficulty to those who have familiarised themselves with the technique previously described by me in connexion with the filling in of sedimentation tubes. These operations are as follows.

---

[1] The first communication was published in THE LANCET of Dec. 1st, 1900, p. 1556 and the second communication in THE LANCET of March 2nd, 1901, p. 609.

The tubes which contain the mixture of serum and bacterial culture having been taken in hand *seriatim*, a rubber teat is in each case fitted in a collapsed condition upon the upper end of the tube. The lower end of the tube—i. e., the terminal bead and a small portion of the capillary stem beyond this—is now introduced into a flame (a small luminous flame, such as that of a "peep light," may conveniently be employed for the purpose), and this end is, whilst still hot, plunged into a watch-glass containing sterile broth. The end having been snapped off in this manner, the nutrient broth runs up into the tube and is allowed to fill in the mixing chamber nearly to the top. The tube is then removed from the fluid—the inflow being at this moment stopped by making a gentle pressure on the teat—and the end is sealed up in the flame. A decision as to whether the bacteria have or have not survived the action of the serum can now, after the tube has been cultivated for 24 hours at blood temperature, be judged of by a mere inspection Where the determination of bactericidal power has been instituted with an agglutinating serum, care will of course have to be taken not to overlook the sedimented bacteria which may be lying at the bottom of the tube. In cases of doubt the contents of the tube can always be microscopically examined.

The method of determining the number of bacteria present in the culture employed has also been simplified in the following way. A series of measured volumes of an extreme dilution of the culture is now taken for cultivation, the number of the contained bacteria being determined by ascertaining what volume of the diluted broth culture has to be employed to obtain a cultivation.

For the purposes in question it is obviously necessary to be able to dilute quickly and unlaboriously. The pipette represented in the figure enables this to be done. The pipette in question is made as follows. 1. A piece of stoutish glass tubing (of about three eighths of an inch in diameter) is drawn out in the flame into a capillary stem. 2. This capillary stem is then graduated in five divisions of five cubic millimetres by the method fully described in a previous communication. 3. 10 successive volumes of coloured fluid, each consisting of 25 cubic millimetres, are filled into the pipette, a bubble of air being, as in the technique already described in connexion with capillary sedimentation tubes, interposed between each two of the 25 cubic millimetre volumes last spoken of. 4. A division mark is now placed on the body of the tube, corresponding to the 250 cubic millimetres now filled in. 5. The contents having been blown out and the tube having been dried, the tube is now drawn out in the flame at the point indicated. After cooling down the pipette and filling it in again with 250 cubic millimetres, the division mark will now be found to fall on some part of the narrow, drawn out portion of the stem. This point, when found by same procedure as before, is to be indicated with a division mark. 6. The tube is then to be drawn out again a little above this point so as to form a safety chamber, the narrowed part of the tube above this being moulded into a stout spiral. With reasonable care and with an occasional refreshing of the division marks the diluting pipette which has thus been made may be employed for an indefinite period.

To come, however, to the particular application of the pipette to the estimation of the number of bacteria contained in the culture employed for the bactericidal estimation, the first step will be to place in front of one's self four sterile watch glasses and to cover each of these in. By filling in the pipette twice, and by withholding, when expelling the contents of the pipette into the watch-glass, one five cubic millimetre volume, 495 cubic millimetres of sterile broth are introduced into the first watch-glass. In a similar manner the two next watch-glasses are filled in each with 495 cubic millimetres. Lastly, the fourth watch-glass is filled in with 990 cubic millimetres. Five cubic millimetres of the undiluted bacterial culture are then introduced into the first watch glass by means of the graduated pipette. After carefully mixing, five cubic millimetres are carried on from this into the second watch-glass Before proceeding to mix the contents of the second watch-glass the pipette is now carefully washed out in boiling sterile water. Mixture having been effected five cubic millimetres are then carried on from the second to the third watch-glass. Lastly, the same precautions having been taken as in the previous case, 10 cubic millimetres are carried forward into the fourth watch-glass and mixture is effected. In this manner a dilution of 100,000,000 will have been arrived at in the case of the last watch-glass, and this, in the case of the typhoid cultures which have been employed by me, represents an appropriate dilution.

The next step in the procedure is to take a series of measured volumes of the 100,000,000 dilution. This is done by means of the graduated pipette already employed. Convenient volumes to employ are volumes of 500, 250, 125, 50, 25, 10, and five cubic millimetres respectively. These are measured off directly into tubes of sterile nutrient broth or, in case of the smaller volumes, on to sterile nutrient agar. The first and second of these volumes are conveniently obtained by filling in the pipette in the first case twice and in the second case once; the volume of 125 cubic millimetres is obtained by filling in the pipette five times successively up to the 25 cubic millimetres division-mark, a bubble of air being, of course, interposed between each two volumes. The fourth and fifth measured portions, consisting as they do of 50 and 25 cubic millimetres respectively, will conveniently be obtained by filling in the pipette in the first case twice and in the second case once up to the 25 cubic millimetre division-mark. Lastly, the sixth and seventh volumes are conveniently obtained by filling in the pipette again to the 25 cubic millimetre division and expelling from the pipette in the one case two volumes and in the other case one volume of the five volumes of contained fluid.

The method of calculating the results will best be explained by the assistance of two actual examples of enumerations of the number of bacteria obtained in the typhoid cultures.

EXAMPLE 1.

Tube 1, to which have been added 500 cubic millimetres of 100 000,000 dilution	Growth.
Tube 2, to which have been added 250 cubic millimetres of 100,000,000 dilution	Sterile.
Tube 3, to which have been added 125 cubic millimetres of 100,000 000 dilution	"
Tube 4, to which have been added 50 cubic millimetres of 100,000,000 dilution	"
Tube 5, to which have been added 25 cubic millimetres of 100,000,000 dilution	"
Tube 6, to which have been added 10 cubic millimetres of 100 000,000 dilution	"
Tube 7, to which have been added 5 cubic millimetres of 100,000,000 dilution	"

Taking these tubes *seriatim*, the inferences that can be drawn from their consideration are as follows.

Tube 1.—From the fact that a culture of typhoid bacillus is obtained in the case of this tube which contained half a cubic centimetre of the diluted culture it may be inferred that one cubic centimetre of the diluted culture in question contains two or more typhoid bacilli.

Tube 2.—From the fact that this tube which contained one quarter of a cubic centimetre of the diluted culture remains sterile, it may be inferred that one cubic centimetre of diluted culture contains less than four typhoid bacilli. Or, if we take into consideration the fact that no culture develops in Tubes 3, 4, 5, 6, and 7, which contain in the aggregate 465 cubic millimetres, it may be inferred that less than 2·1 (1,000 ÷ 465 = 2·1) are contained in one cubic centimetre of the dilution employed. Taking, therefore, 2 as representing the number of bacteria in one cubic centimetre of the dilution employed, and multiplying this figure by 100,000,000, we arrive at 200,000,000 as the number of typhoid bacilli contained in one cubic centimetre of the original culture.

EXAMPLE 2.

Tube 1, to which have been added 500 cubic millimetres of 100,000 000 dilution	Growth.
Tube 2, to which have been added 200 cubic millimetres of 100,000,000 dilution	Sterile.
Tube 3, to which have been added 100 cubic millimetres of 100,000,000 dilution	Growth.
Tube 4, to which have been added 50 cubic millimetres of 100,000 000 dilution	Sterile.
Tube 5, to which have been added 25 cubic millimetres of 100,000,000 dilution	"
Tube 6, to which have been added 10 cubic millimetres of 100,000,000 dilution	"

We may infer here as before from the fact that a growth takes place in Tube 1 that one cubic centimetre of the dilution employed contains at least two bacilli. From the results of Tube 2, which has been filled in with one-fifth of a cubic centimetre of the diluted culture, we infer that there are less than five bacilli in the cubic centimetre of dilution.

get a lotion for the "whites," but for which I declined to give a prescription without seeing the patient first. I then elicited that they were sometimes tinged and that she had a good deal of pain and some hæmorrhage on coitus. On examination about two inches within the vagina a cauliflower growth of about the size of three walnuts with a base of the size of a florin was met with. With a finger in the rectum and one in the vagina no trace of thickening could be felt around the clearly circumscribed base and the bowel-wall was freely moveable away from the base. Beyond the growth the vagina was perfectly healthy as was the cervix. Several glands in both groins were enlarged and tender. Owing to the total absence of any infiltration of the vagina I thought that the case was probably a papilloma and that the enlargement of the glands was simply due to the irritation of the growth and the secretion. I sent the patient to University College Hospital where Dr. G. F. Blacker removed the growth by a circular incision of about the size of a crown-piece, this seeming to be well beyond the growth in all directions. The glands were removed at the same time. The patient left the hospital in about three weeks and on examination later I found a great deal of cicatricial contraction with hardened masses bulging between the scars and bleeding freely on the slightest touch. In less than a month there were large warty growths over the vulva and others at the surface of the vagina which in later times have become as large as oranges, giving great difficulty in micturition, while the site of the vaginal growth has spread and invaded the bowel to such an extent as to threaten obstruction of the bowels, this only being obviated by passing a large catheter through the mass and keeping the fæces very liquid by numerous small injections through it. The patient has now numberless disseminated nodules over the skin of the abdomen with affections of some of the glands in the groin.

In a recent letter from Dr. Blacker he tells me that the growth proved microscopically to be carcinoma. Except when the bowels have a difficulty in being relieved the pain is kept down perfectly effectually by repeated doses of nepenthe which, in this case, as in many other cases, seems most effectual in allaying pain without producing any disorder of the head, stomach, or bowels and is in this way immeasurably superior to the tincture of opium of the British Pharmacopœia

One moral to be gained from this case is not to prescribe without a full examination of the patient. Had I given a prescription (which would naturally have failed) and then had seen the patient some weeks later my conscience would have reproached me for ever with the thought that had its cause been known earlier it would have been probably a curable case—an erroneous conclusion, but one which would never have been disproved.

King Henry's-road, N.W.

A Mirror
OF
HOSPITAL PRACTICE, BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Procœmium.

ST. BARTHOLOMEW'S HOSPITAL.

A CASE OF STRANGULATED HERNIA IN A PREMATURE CHILD, AGED FIVE WEEKS; OPERATION; RECOVERY.

(Under the care of Mr. D'ARCY POWER)

STRANGULATED hernia in very young children is extremely rare, for though about 100 cases of herniotomy for strangulation have been recorded up to the present in which the patient was under a year old, this number is seen to be small when compared with the very large number of children who suffer from congenital inguinal hernia Contrary to what might have been expected, the mortality is by no means high in those cases in which an operation is performed. About 16 cases have been recorded during the first month and about as many in the second.[1] Nearly half the cases in children under one year occur during the first three months.

On April 15th, 1901, a very wasted and ill-nourished male child, aged five weeks, was admitted into St. Bartholomew's Hospital, under the care of Mr. D'Arcy Power, with the history that a swelling was first noticed in the left groin on the 12th and that on the 13th the child vomited every time he was put to the breast and cried all day. The vomiting continued till the time of admission and the bowels had not been opened since the 12th at 9 A.M. The child was said to be born prematurely at seven months. He was blue and collapsed and in the left inguinal region there was a hernial swelling as large as a walnut. The hernia was cut down upon as taxis under chloroform failed to reduce it. The sac was opened and was found to contain a very little piece of omentum with a knuckle of small intestine rather deeply congested. The hernia was of the congenital variety and there was practically no fluid in the sac. The constriction was situated at the internal ring and was very tight. The stricture was divided, the bowel was returned, and the sac was isolated, ligatured in two places and divided, the distal part being left to form a tunica vaginalis whilst the proximal portion was stitched to the peritoneal surface of the abdominal wall. The external abdominal ring was closed with a single suture and the wound was united with silkworm gut. The child bore the operation well and was fed by the mouth four hours after he recovered from the anæsthetic. The bowels were opened on the following morning and he never vomited. The sutures were taken out on the fourth day when the wound was perfectly healed. A collodion dressing was applied and the child left the hospital on the 30th. He weighed 4 pounds 12 ounces on admission and 5 pounds 1 ounce on the day of discharge

On May 21st the child was taken to Mr. Power, as a new patient, at the Metropolitan Dispensary for the relief of a hernia on the right side. He recognised the child as soon as he saw the scar and as the hernia seemed to be due to the straining caused by a very tight phimosis a circumcision was performed. The child again recovered with a single dressing.

Remarks by MR. POWER.—Cases of strangulated hernia requiring an operation are sufficiently rare in very young children to make it worth while to record their appearance from time to time. I am indebted to Mr. C. S Hawes, my late house surgeon, for the notes of the case.

ROYAL INFIRMARY, NEWCASTLE-ON-TYNE.

A CASE OF CÆSAREAN SECTION AND COMPLETE REMOVAL OF THE UTERUS IN THE EIGHTH MONTH OF PREGNANCY FOR CANCER OF THE CERVIX.

(Under the care of Dr. THOMAS OLIVER and Mr. RUTHERFORD MORISON.)

THE best treatment for malignant disease of the cervix of an unimpregnated uterus is total hysterectomy, and the coexistence of pregnancy with the malignant disease increases the advisability of immediate operation, especially in cases in which there is a good hope of removing completely all the new growth. When pregnancy has advanced so far as the eighth month Cæsarean section followed by hysterectomy is the only satisfactory method of dealing with the condition. In the case recorded below there is very good reason for hoping that no recurrence will occur.

On Jan. 25th, 1901, a married woman, aged 39 years, was sent by Mr. H. B. Ord of South Shields to consult Dr. Oliver on account of uterine hæmorrhage. She was then far advanced in pregnancy. She looked a healthy but anæmic woman and was the mother of nine children, the youngest of whom was two years and one month old. All her confinements had been easy. Since the birth of her last child the patient had suffered on a few occasions from uterine hæmorrhage, especially during the last 18 months. Blood would come away once or twice a week and would continue only a few hours or for the greater part of a day. The hæmorrhage was irregular and for five or six weeks might entirely disappear. Five months before she had a severe but painless bleeding. This continued for two hours and then suddenly ceased. Half a pint of bright, clotted blood escaped in a very short time. No more blood was seen by the patient until three days before seeing Dr. Oliver when there was another excessive loss unaccompanied by pain, but so profuse as to cause considerable anxiety to her medical attendant and friends. Seven months previously she first knew she was pregnant. There was morning sickness and in due course she "quickened," the abdomen meanwhile becoming correspondingly enlarged. When examined in Newcastle the movements of the child were very active. Apart from the hæmorrhages above alluded to there had been no vaginal discharge. The blood that escaped had no fœtor. The patient's general health had remained good. Her lips were slightly cyanosed. As regards the heart, over the tricuspid area a soft systolic murmur could be heard. The lungs and kidneys were healthy. The uterus reached to within three inches of the ensiform cartilage. The fœtus was easily felt, its movements were extremly active, and its heart's sounds could be best heard just above the umbilicus, and the placental souffle close to the umbilicus on the left side. On vaginal examination Dr. Oliver found the os uteri open and the interior rough and irregular; the greater part of the cervix uteri, especially on the left side, was occupied by a mass of friable growth the margins of which were irregular, nodular, and disposed to bleed. The cervix felt on the whole fairly moveable and the fornices so far as the finger could ascertain seemed to be free. Through the speculum the growth, which could be seen projecting towards the vagina, was dirty-greyish on the surface and had all the appearance of a cauliflower excrescence.

---

[1] B G. A. Moynihan, THE LANCET, Sept. 25th, 1897, p 788.

Dr. Oliver was therefore confronted with this problem: a woman in the eighth month of pregnancy with cancer of the cervix and the subject of severe recurrent uterine hæmorrhage. What was the best thing to do? To allow the patient to go on to term, to run the risks to herself and child incurred by recurrent excessive hæmorrhage and the dangers incidental to parturition by the passage of the infant through an unhealthy, unyielding, and tearable cervix, or to recommend the bolder, and, as events subsequently showed, the safer, procedure of abdominal section, incision of the uterus, and removal of the child followed by complete extirpation of the uterus and cervix? He advised the latter and recommended Mr. Ord to allow the patient, on account of the serious nature of the operation, to enter the Newcastle Infirmary. Here she was seen by Mr. Rutherford Morison and as his opinion both as regards the diagnosis and line of treatment was similar to that which has just been expressed the patient was placed under his care.

Operation was performed by Mr. Morison on Jan. 31st, 1901. Chloroform was the anæsthetic used. The patient was placed in the Trendelenberg position and kept thus throughout. After disinfecting the skin of the abdomen and vagina as far as possible an incision was made commencing three inches above the umbilicus and carried to the pubes; the uterus was turned out and the abdominal cavity was packed off with sponges. The infundibulo-pelvic ligaments on either side were ligatured and divided along with the lateral portions of the broad ligaments. The uterine arteries were held between the fingers and thumb of an assistant. The womb was opened by a vertical incision from the fundus downwards and the child was extracted. The placenta was observed lying to the left and posterior part of the fundus. An elastic ligature was tied round the uterus just above the cervix and the upper segment was cut away. There was very little bleeding at this stage of the operation The placenta was not removed. The broad ligaments were next cut through and the uterine arteries were clamped and cut. These vessels were unusually large and their cervical branches bled freely. Many large veins had to be clamped and tied An attempt to remove the diseased cervix by the vagina was not persisted in and it was removed from above All the disease seemed to be eradicated, for, so far as could be seen, the broad ligaments and peri-uterine tissues did not appear to be infiltrated. The extra-peritoneal part of the pelvis was packed with antiseptic gauze and part of this was brought down into the vagina. The peritoneum was sutured with continuous catgut over the stumps of the broad ligaments and the gauze, thus completely closing the pelvic peritoneum. The abdominal wall was completely sutured in layers with catgut The patient stood the operation well. The infant was a healthy female of eight months. On removal from the uterus she was cyanosed and did not breathe, but under the attention of Dr. W. Simpson, senior house physician, life was soon restored. The operation lasted one hour and 50 minutes. Both ovaries were removed along with the womb.

For the first few days after the operation the patient progressed very satisfactorily. Beyond occasional sickness all seemed to be going on well until Feb. 11th, when on dressing the abdominal wound it was noticed that while the lower part of the wound had perfectly healed a loop of small intestine about six inches in length was seen protruding through the upper part of the incision; it was reddened and bled easily and on its surface a few flakes of lymph were noticed. The bowels had been freely moved—rather purged than otherwise, the stools being offensive. The exposed gut was washed with boric lotion; the omentum was found adherent to the edges of the incision; this was separated and returned along with the intestine into the adbominal cavity and the incision was closed with through and-through silkworm-gut sutures. The progress after this continued to be satisfactory for a period. On March 18th a small vesico-vaginal fistula was detected but it gave the patient very little trouble. The abdominal incision had practically healed. Both the mother and the child were remarkably well and were leaving the infirmary that day. Mr. Gray Turner, surgical registrar, who examined the cervix microscopically, reported: "Epithelioma; quite characteristic." On May 6th Mr. Turner wrote to Dr. Oliver: "Mrs. —— was at the infirmary to-day. She looks well and strong; the abdominal incision is sound. The vesico-vaginal fistula is healed and there is no sign of recurrence. The baby is flourishing."

Remarks by Dr OLIVER.—There are few things more distressing to a medical practitioner than for him to find one of his patients who is the mother of a large family the subject of cancer of the uterus and approaching the end of pregnancy. The detection of cancer of the neck of the uterus in the first two or three months of pregnancy is a much less formidable matter, especially if the disease is limited to the cervix, and in most of these cases it will be limited, for were it at all advanced the foul discharges would of themselves be sufficient to prevent conception taking place. In such a case, with malignant disease limited to the cervix, there is no need to delay operation. Total extirpation of the uterus by the vagina is at once called for. But when pregnancy is far advanced the case is quite different. There is a temptation to allow the pregnancy to go to term and for the practitioner to buoy himself up with the hope that by application of the forceps or by turning the dangers that are incidental to a tedious labour may be averted, and when the confinement is over that the diseased uterus can then be dealt with. But is there any ordinary certainty that the life of the mother will be spared to term and that her child will then be still alive? Too often the hæmorrhages are so profuse that the mother becomes exhausted or she becomes poisoned by absorption of her discharges. There are few obstetricians who will deny that carcinoma advances in a pregnant uterus much more rapidly than in an unimpregnated uterus. By allowing the pregnancy to run its course and the disease to make further progress we make labour more difficult owing to the unyielding tissues of the cervix and more dangerous to the mother in consequence of the friable nature of malignant structures, their tendency to tear, and for the rupture to extend into the uterus and to cause death by shock and hæmorrhage Of 180 cases of carcinoma of the uterus in pregnant women collected by Herman in 11 the uterus ruptured Cohnstein has reported 14 cases in which women died undelivered, 13 being at full time and 1 in the seventh month of pregnancy Although in the later stages of pregnancy Cæsarean section with abdominal hysterectomy is a line of treatment to be carefully considered in these cases, it is only right to mention that surgeons have removed the uterus per vaginam as late as the seventh month of pregnancy. I am in favour of the abdominal method and also of not allowing the pregnancy to go to term. The case which we have reported was fortunately one in which, although the cervix was much destroyed by cancer, the fornices were clear. The successful result shows that for this case at any rate the proper treatment was adopted.

AT the Bedwellty (Mon.) School Board election held on May 20th, Mr. Howell Thomas Evans, M.R.C.S. Eng., L.A.H. Dub., D.P.H. Cantab., J.P., was returned at the head of the 13 successful candidates.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Traumatic Subdural Hæmorrhage successfully treated by Operation.—Extreme Dilatation of the Left Auricle of the Heart.—Acute Suppuration of the Thyroid Gland Complicating Typhoid Fever.—Annual Meeting.

A MEETING of this society was held on May 24th, Sir R. DOUGLAS POWELL, Bart, the President, being in the chair.

Dr. RISIEN RUSSELL and Mr. RAYMOND JOHNSON made a communication upon a case of Traumatic Subdural Hæmorrhage in which convulsions, occurring on the sixth day, were successfully treated by operation. The patient was a man, aged 33 years, who fell down a flight of stone steps. The immediate symptoms were those of concussion and there was a superficial scalp wound in the left parietal region. During the five days which followed the injury there were no noticeable symptoms, but on the sixth day convulsions supervened, which were frequently repeated and involved the left side of the body, spreading across to the right side of the face and right leg, and in some of the most severe fits to the right arm. There was a strong family history of *epilepsy* and the urine contained albumin. In consequence, however, of the distribution of the convulsions, the presence of the extensor response, and of marked left-sided paresis between the fits, the existence of an irritative lesion of the right motor area of the cortex was diagnosed. After the inhalation of chloroform and the administration of chloral and bromide of potassium had failed operation was decided upon. The trephine was applied over the right Rolandic area and several drachms of dark blood were evacuated on incising the dura mater. The surface of the brain presented no unusual appearances beyond very slight bulging. No convulsions occurred after the operation. The paresis of the left side of the body became gradually less and the muscular power became perfect a month after the operation. No satisfactory explanation was offered for the long delay in the incidence of the symptoms. They could hardly be regarded as the result of spreading cerebral œdema because there was no evidence of any laceration of the brain substance.

Dr. ISAMBARD OWEN and Dr. W. J. FENTON communicated a case of Enormous Dilatation of the Left Auricle of the Heart. The capacity of the auricle was 30 ounces; its greatest diameter was six and a quarter inches, exclusive of the appendix, which was also greatly dilated. Its walls were extremely thin but healthy in structure; the pericardium was adherent to the auricle posteriorly. The other cavities of the heart were dilated, but to a more or less extent, the ventricles being also hypertrophied. The mitral orifice admitted four fingers and the edges and cords were somewhat contracted, but no other evidence of former endocarditis was present. The heart and pericardium occupied the entire cavity of the thorax below the level of the fourth ribs in front, the pericardium being adherent to the right parietal pleura from the spine to the anterior axillary line. The diaphragm and liver *were greatly depressed*. The patient, a woman, aged 40 years, was admitted to St. George's Hospital last November with urgent dyspnœa. The apex-beat of the heart was found to be in the eighth space and in the posterior axillary line; a heaving impulse was felt over the front of the chest. *A systolic murmur* and a sharp second sound were heard over the front of the chest, culminating at the apex. A presystolic murmur was also occasionally heard. Loss of vocal fremitus, as well as of percussion resonance and stethoscopic sounds, being found over the right base and flank, paracentesis was performed in the sixth space and mid-axillary line. Pure blood resulted, the trocar having penetrated, as was afterwards found, the left auricle of the heart. The operation was at once suspended. The patient appeared none the worse for the occurrence and survived for three and a half days, dying eventually from asphxyia due to compression of the lungs. On subsequent examination, pulsation, except at the apex, was found limited to the front and part of the flank of the right chest. Over a part of this area was felt a systolic thrill, culminating near the right nipple, where also the systolic murmur had a second culminating point. The patient, it was found, had been in the hospital with cardiac symptoms in 1888 and 1898. On the former occasion the symptoms were stated to be of six years' duration, having begun at the age of 22 years. There had been an attack of rheumatic fever in childhood. On this occasion the condition was not distinguishable from one of mitral stenosis. *On the second* occasion the apex-beat had advanced to the seventh space and mid-axillary line. There were marked pulsation in the lower part of the right side of the chest and a systolic thrill best felt just below the right nipple. A faint thrill was occasionally felt at the apex and a systolic murmur culminated at the apex, the second sound being reduplicated. In the aortic area the first sound was impure and the second was clear. There was no rumble or snap. There was marked pulsation of the lower ribs on the right side, with a systolic thrill most marked just below the right *nipple. Pulsation was seen in the fourth space above* the right nipple. The front and flank of the right chest were dull up to the fourth rib and a loud systolic murmur was well heard over this region. Vocal fremitus was absent from the dull area. The posterior base was resonant, but other pulmonary signs were deficient. The systolic murmur was heard at the angle of the left scapula. The liver was pushed downwards on this occasion and aneurysm was suspected, but no certain diagnosis was arrived at. She had begun to suffer from severe and increasing dyspnœa with pain in the right side of the chest six weeks before her final admission in 1900. Dr. Owen suggested as the first origin of the dilatation of the left auricle the adhesion of the pericardium to its wall. The main difficulty of diagnosis lay in the fact that the possibility of such a condition as existed was not suspected. The possibility being revealed the significance of the physical signs were apparent. As far as he knew the case stood alone, but he proposed to make inquiries as to the existence of similar specimens elsewhere and to lay the results of his inquiries (if any) before the society.—The PRESIDENT remarked on the extreme rarity of the case and asked if any relief ensued from the paracentesis.—Dr. W. EWART remarked that he had seen the patient during life. It was a very rare, if not a unique, condition and it was to him a most interesting one as throwing some light on the mechanism of auricular dilatation in cases of disease of the mitral orifice. In mitral stenosis auricular dilatation was generally attributed to the backward accumulation of blood in the right ventricle. But how was it that in some cases of extreme mitral stenosis there might be hardly any dilatation of the left auricle? The causation of the dilatation was undoubtedly obstruction, but this was situated, he thought, in the present instance, as in many other cases of mitral stenosis, not so much at the mitral as at the aortic orifice. The contracting force of the left ventricle was thus exerted backwards and auricular dilatation ensued.—Dr. SIDNEY COUPLAND thought that in view of the enormous size of the auricle in this case there was another factor in the dilatation—namely, inherent weakness in the auricular wall. The dilatation was, in short, rather of the nature of an aneurysmal one.—Dr. OWEN, in reply, agreed with Dr. Ewart that both the pulsation and the dilatation of the auricle were due to ventricular contraction. The microscope did not reveal degeneration in the muscular tissue of the heart.

Mr. RICKMAN J. GODLEE read a paper on a case of *Acute Suppuration of the Thyroid Gland complicating* Typhoid Fever. The patient was a young woman, aged 20 years, who was attacked with typhoid fever at the end of October, 1900. On Nov. 20th a swelling formed at the lower part of the neck, followed by a patchy irritable rash all over the body which disappeared on the 26th. The swelling, however, rapidly increased in size and her temperature rose, reaching 104 4° F. on the 28th and 105·4° on the 29th, the pulse rising to 140. There had been a moderate degree of swelling in that situation for some years. When first seen by Mr. Godlee the swelling occupied the middle line and extended somewhat to the right but much further to the left. There was difficulty in swallowing and the surrounding structures did not move freely over the swelling. There was no movement of the mass on deglutition. An incision was made in the middle line and a cavity was reached ha[illegible] an inch within the gland, which was of large size. It contained a reddish-brown, sticky fluid, mixed wi[illegible] much friable material. The bleeding was [illegible] alarming. A drainage-tube was inserted [illegible] dressing was applied. The patient was much [illegible] able after the operation. Recovery was [illegible]

March she was restored to perfect health. Mr. Godlee discussed the different varieties of thyroid inflammations: (1) idiopathic with spontaneous subsidence; (2) epidemic, as described by French military surgeons, of the nature of an acute specific fever; and (3) the septic form, of which this case was an example. Acute suppurative thyroiditis had been recorded as occurring in connexion with many infections and septic states, such as rheumatic fever (eight cases), malaria (three cases), typhoid fever (two cases), diphtheria (two cases), erysipelas, pneumonia, ozæna, compound fracture, and erythema nodosum Of 28 recorded cases suppuration occurred in 15, and in six others this point was not mentioned. He suggested that the rheumatic cases ought, perhaps, to be placed in a separate category, as these did not suppurate. It appeared to be especially common in connexion with typhoid fever, and the proper treatment was immediate opening and drainage. There did not appear to be much danger of serious hæmorrhage. The affection was not included among the complications of enteric fever in the current medical text-books, as it ought to be.—Mr. CHARTERS SYMONDS remarked that he had not seen this form of thyroiditis, but he had seen one case of acute thyroiditis accompanied by dyspnœa and swelling which proved to be, when operated on later, a cyst. He had seen one case of gummatous thyroiditis and he had met with a case in which there were several foul abscesses lying around the gland, but so far as he knew they did not lie within the gland.—Sir THOMAS BARLOW recalled the case of a young woman the subject of a small goitre who contracted typhoid fever. The goitre swelled up and tracheotomy was performed, but the patient died. There was no true suppuration—it was a cystic process. He thought that in many of these cases the inflammation took a hæmorrhagic form similar to that which took place in hæmorrhagic pancreatitis.—Mr. GODLEE, in reply, wished to emphasise the fact that in most of these cases the inflammation supervened in a gland already diseased The thyroiditis generally supervened in typhoid fever during the stage of convalescence.

The annual meeting of this society was then held. The report of the council, read by the secretary, showed the society to be in a prosperous condition, the membership now amounting to 610. The treasurer's report was then presented. There was an increase in the expenditure, but only commensurate with the usefulness of the society. Both of these reports were adopted. Various alterations in the rules, as recommended by the council, were passed. Votes of thanks to the President, the Vice-Presidents, and Council, the retiring secretary (Mr. Charters Symonds), and other officers were passed with acclamation. The result of the ballot showed that the officers and council for the ensuing year, [illegible] were duly elected as follows:— [illegible] Marsh. Vice Presidents: Dr. [illegible] n Poore, Dr. W. Joseph Tyson, [illegible] ment Lucas, and Mr. Herbert [illegible] ederick Taylor. Council: Mr. [illegible] Rose Bradford, Dr J. Mitchell [illegible] Dr. J. K. Fowler, Dr. S. H. Habershon, Dr. H. P. Hawkins, Dr. J. A Ormerod, Dr. H. D. Rolleston, Dr. A. F. Voelcker, Mr. Gilbert Barling, Mr. W. H. Battle, Mr. Leonard A. Bidwell, Mr. Stanley Boyd, Mr. L A Dunn, Mr. F. S. Eve, Mr. Raymond Johnson, Mr. John D. Malcolm, Mr. H Betham Robinson, and Mr. Charters J Symonds. Honorary secretaries: Dr. Percy Kidd and Mr. Anthony A. Bowlby.

HARVEIAN SOCIETY OF LONDON.

Congenital Morbus Cordis.—Spastic Paralysis and Friedreich's Disease after Operation.—Cerebellar Ataxy.

A MEETING of this society was held on May 16th, Dr. D. B. LEES, the President being in the chair.

Dr. E. CAUTLEY showed a girl, aged 13 months, with a Loud Systolic Murmur over the Præcordium. The murmur was loudest in the left third interspace near the sternum and was conducted upwards, downwards, and out- ards. It was loud at the apex, in the fifth space in e nipple line, and was heard all over the back of the est, being louder on the left side of the spine There s slight evidence of hypertrophy of the right ventricle. ere was no clubbing of the extremities and neither anosis nor anæmia. The child had no symptoms of heart disease and was well nourished. She was the third living child out of seven. No history of congenital syphilis had been obtained. The murmur had not varied during the nine months the child had been under observation. Dr. Cautley thought there was probably a deficiency in the interventricular septum.

Dr. CAUTLEY also showed a boy, aged 13 years, as a case of Direct Communication between the Aorta and Pulmonary Artery with possibly other deficiency present. The case illustrated the connexion between congenital heart disease and inherited syphilis. He was the eighth child, one of twins, the other being undeveloped. The seventh was stillborn, while the mother was in hospital for syphilitic disease of the throat. The sixth child was healthy up to six years of age and then became blind and imbecile. The patient exhibited other congenital abnormalities—namely, hypospadias and deformity of the toes. He was small for his age, very thin, and had notched, pegged teeth. The heart's apex was in the fifth space, in the nipple line, and there was evidence of some hypertrophy of the right ventricle Over the second and third left interspaces were a double thrill and murmur, chiefly systolic, and corresponding murmurs extending over a fairly wide area. The sounds were clear at the apex. The pulse was 96, small, and soft. There was no clubbing, cyanosis, or anæmia, and the boy had no symptoms of cardiac distress. Dr. Cautley remarked on the d [illegible] cases and thought [illegible] prognosis. He re [illegible] common cause of [illegible] endocarditis.—With reference to the second case Dr. G. A. SUTHERLAND agreed with the diagnosis of congenital disease, probably a communication between the aorta and pulmonary artery. The loud, rumbling, double murmur, in which he thought the diastolic part was much more pronounced than the systolic, the thrill, and the situation of the murmur, all supported this view. The opening was probably a small one, as no great admixture of venous and arterial blood seemed to be present.—The PRESIDENT commented on the difficulty of accurate diagnosis in cases of this kind and thought the explanation given of the murmurs in the present instances was the correct one. He had recently seen a patient with physical signs like those of the second case and post mortem a communication was found between the aorta and pulmonary artery.

Mr. JACKSON CLARKE showed a boy, aged six years, on whom he had operated in April for Severe Spastic Paralysis. All deformity had been removed and the patient could stand alone, and with the aid of an instrument, the structure of which was demonstrated, he already began to walk, and although the gait was somewhat stiff it had none of the previously pronounced spastic features.—Mr. CLARKE, in reply, said that his observations led him to conclude that the benefits obtained in these cases were permanent. If spasm recurred it was within a few weeks of operation, and was merely an indication for a more extensive removal of tendon. In one case where the operation had been done 20 years ago no return of the spastic condition had occurred. In certain cases the relief of the spasm was complete, and after a time the patient could dispense altogether with instruments.—Mr. JACKSON CLARKE also showed a boy, aged nine years, who had suffered from extreme Deformity of the Feet due to Friedreich's Disease. He had never walked well and just previously to operation had ceased to be able to walk at all. To correct the deformity the plantar fascia and short plantar muscles, and on a subsequent occasion the tendo Achillis and the tendons of the long flexors of the toes and those of the tibiales muscles, had been cut. The boy could now walk in comfort and was free from any danger of return of the deformity, and though the progress of the disease could not be arrested the patient would be able to walk about for some years.—Mr. NOBLE SMITH stated that although many cases of severe spastic paralysis were unsuited to operation, there were yet a certain number which could be distinctly benefited by tenotomy. The case shown by Mr. Jackson Clarke exemplified this fact, and he (Mr. Noble Smith) had seen several instances in which children previously unable to walk at all had been enabled by operation to get about in a manner on their feet They must not expect brilliant results in such cases, but they could realise the enormous difference [illegible] t [illegible] e [illegible] in cases after operation, not only in respect to powers of locomotion, but also as regards a lessening of spasm. He also had noticed an improvement in the mental capacity of children whose brains had been affected.—The PRESIDENT and Mr. W. W. CAMPBELL WILLIAMS also took part in the discussion.

Mr. E. R. CLARKE showed (for Dr. H. A. CALEY) a boy, aged 10 years, suffering from Ataxy of a Cerebellar Type. The child was said to have been perfectly well until six weeks before, when, after a slight fall which caused the nose to bleed, marked unsteadiness of gait was noticed. Since that time on attempting to walk there had been a marked tendency to fall backwards, so that no progress could be made. He could not stand with his feet together; with his feet widely apart he could stand with difficulty. On shutting his eyes he invariably fell backwards. Excepting for occasional frontal headache, slight exaggeration of the right knee-jerk, and vomiting on one or two occasions, there had been no other symptoms, and the optic discs had remained normal. Latterly, the ataxy had lessened to some extent. Dr. Caley regarded the symptoms as referable to a lesion of limited extent implicating the middle lobe of the cerebellum; the possibility of a small hæmorrhage of traumatic origin had been considered, but the presence of a new growth or tuberculous mass was considered more probable.—Dr. SUTHERLAND found it difficult to form a definite opinion, but the evidence adduced of cerebellar disease was far from conclusive. The gait as demonstrated was not characteristic of cerebellar or of any other disease, and as muscular power was manifested in the lower limbs through other tests than the walking one he suggested the presence of a functional element in the case which might be amenable to treatment.—The PRESIDENT and Dr. CAUTLEY also commented on the case and suggested that the child should be brought before the society on some other occasion.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Patients and Specimens.

THE eighth meeting of this society was held on May 15th and was devoted to the exhibition of patients and specimens; Dr. A. G. MILLER, the President, was in the chair.

Dr. ALEXANDER BRUCE showed two patients. The first was a girl who exhibited almost complete Paralysis of the Right Brachial Plexus. The accident which produced it was peculiar in that the girl was working at a carding mill throwing lint on to a travelling band. No one saw how the accident occurred, but the girl remained unconscious for 20 hours. There was no external injury but complete loss of power in, and almost complete anæsthesia of, the right arm were manifest on her restoration to consciousness. The condition had not improved in the least since the accident but a progressive atrophy of the muscles had ensued. The galvanic current gave only a very feeble muscular reaction while there was none with the faradaic current. The right hand showed great lividity and coldness (being 14° lower in temperature than was the right hand) and there was transverse grooving of the nails. Over the region supplied by the circumflex nerve there was good sensation, as was almost invariably found in paralysis from rupture of the brachial plexus. The right shoulder was higher than the left, due to over-action of the trapezius. The injury to the first dorsal nerve at its root was shown by its action on the sympathetic nerve fibres going to the eye: the right palpebral fissure was smaller than the left, the eyeball was less prominent, and the pupil was smaller. There was flattening of the right cheek, which occurred very frequently in such cases and which was difficult to explain. The serratus magnus and the rhomboid muscles had escaped paralysis. The second case was one of Disseminated Sclerosis occurring in a young woman, aged 22 years. The disease had lasted for two years and now she was almost unable to walk. The intention tremors were most marked, as was also nystagmus.

Dr. BYROM BRAMWELL exhibited two cases. The first was that of a sailor, aged 41 years, with a peculiar form of Muscular Atrophy. The affection began two and a half years ago after the patient had slept in the open air all night. Loss of power was first noted in the muscles belonging to the left big toe, from which it spread to the neighbouring muscles. Two or three months later the right foot became similarly affected. About nine months subsequently the right and then the left hand became paralysed. He was unable to feed himself and could hardly walk; he also suffered from some cramp-like pains in the legs. His health was otherwise perfect and there were no sensory disturbances or affection of the bladder or rectum. The condition remained stationary for about a year and then improvement commenced, so that he could now walk two or three miles, though with a duck-like gait. There was still marked muscular atrophy. The disease was not the ordinary form which began in the hands and only later extended to the feet. In this case it clearly began in the feet and even now affected only the muscles below the elbow and knee-joints. The gait was characteristic of paralysis of the muscles of the front of the leg. The diagnosis was difficult owing to the peculiar distribution and mode of origin of the disease. It was not ordinary peripheral neuritis and there had never been any muscular tenderness The question of its being beri-beri was discussed and excluded. A few German authors had described similar cases. It was evidently a distinct type of disease The knee-jerks were rather diminished. The second case was one of Syringomyelia. The man was admitted to the ward on account of Bright's disease. While there it was noted that the small muscles of the hands (especially on the left side) were markedly atrophied; the fingers had the claw-like appearance. The same condition was present in the right hand and it extended in both cases to the forearm. Tactile sensation was good but that to painful impressions was entirely lost in that part of the skin extending upwards from the umbilicus. The sensations to heat and cold were less markedly altered. There were painful sores on the hands and scars of burns on the back due to his sleeping on a hot boiler, the heat of which he was unaware of. His head was not symmetrically shaped. It was a case of syringomyelia and such cases were very often mistaken for progressive muscular atrophy.

Dr. E. CARMICHAEL showed a man suffering from a Hypertrophic Condition of the Integument, probably due to distended lymphatics. The swelling extended from the right buttock down to the foot. The affection began eight years ago and now the right knee was completely disorganised.

Mr. FRANCIS M. CAIRD exhibited two patients The first was a man, aged 51 years, who had undergone an operation for the Removal of the Pylorus. The patient had lost weight greatly and had an epigastric tumour. A test meal showed that he possessed an excess of hydrochloric acid and some lactic acid. The pylorus was closed, as was also the pyloric end of the stomach, while the jejunum was stitched up and made to open into the posterior part of the stomach. The man had improved greatly since the operation. The second patient was a man who had a very large Growth in his Epigastric Region and was greatly emaciated, weighing only 7 stones 10 pounds. A test meal showed the entire absence of hydrochloric acid. Posterior gastro-enterostomy was performed, but the tumour was left as the patient was excessively weak. The man has put on flesh rapidly and now he weighed 9 stones 6½ pounds, while the tumour had disappeared.

Mr ALEXIS THOMSON showed a woman on whom he had performed Enterectomy for Multiple Tuberculous Strictures of the Small Intestine. The patient suffered from a chronic incomplete stricture of the small intestine which might be either tuberculous in nature or even invagination of the bowel. Visible peristalsis was noted. The woman had suffered from inflammation of the bowels nine years previously. On opening the abdomen a number of enormously distended coils of intestine were seen, along with great matting and miliary tubercles on the serous surfaces There were about five tuberculous strictures, none of which would admit the tip of the little finger. Mr. Thomson had removed 22 inches of bowel in two stages, first making a fistula and clearing out the bowel and later resecting the intestine.

Dr. FRANCIS BOYD showed a young woman suffering from Stenosis of the Pulmonary Valves. She was admitted to the Deaconess Hospital suffering from rheumatic fever and exophthalmic goitre. The murmur was systolic in time with its point of maximum intensity in the second left interspace. There was no cyanosis as happened when the lesion began during fœtal life. The patient had a previous attack of rheumatic fever and probably the lesion dated from that time.

Mr. HAROLD STILES showed a boy after operation for Idiopathic Cerebral Hæmorrhage. The symptoms were those of ordinary apoplexy occurring while the boy was perfectly well. He had been rather unable to do his sums or to read well while at school In the afternoon he felt dizzy and had nine convulsions between 5 P M and 2 A M. when he developed left-sided hemiplegia. He was never entirely unconscious Next morning he had somewhat improved in mental condition though the paralysis was as marked. There was no history of traumatism It was at first thought to be an aberrant case of tuberculous meningitis, but as his symptoms did not improve Mr Stiles trephined over the right parietal bone as it was there that he had complained of pain On opening the dura mater the brain bulged far outwards and cracked in two places, giving exit to several blood-clots On introducing the finger several more clots were felt in the ventricles and these were scooped out Next morning the boy was much more conscious and he stated that the pain was gone There was a very great flow of cerebro spinal fluid for a few days, but in eight weeks the wound had entirely healed and now there was no trace of paralysis

Mr. J. M. COTTERILL showed two cases. The first was that of a woman with a deep Rodent Ulcer under treatment by the x rays The disease developed six years ago and three years ago the right eyeball had to be removed as well as part of the bone It remained healed for 18 months when it recurred. The treatment by the x rays had been continued for four weeks, during which time the ulcer had greatly improved, the pain being much less, the fœtor less marked, and the edges beginning to cicatrise The second case was a Joint Affection in a Hæmophilic Lad The left elbow presented many of the appearances of tuberculous disease, but there was no pain on pressure Several years ago the same patient presented himself with exactly a similar condition in the knee-joint. It was learned that he was a bleeder and so Mr. Cotterill did not think it advisable to operate He introduced a trocar into the knee joint and withdrew blood Ultimately the knee-joint recovered perfectly. The swellings in both knee and arm had persisted for long and both were probably due to long-continued bleeding into the joints

Dr A SCOT SKIRVING showed (1) A Brain showing the track of a Mauser bullet completely traversing the organ; (2) a Brain from a case simulating Rupture of the Meningeal Artery; (3) specimens illustrating the Effect of Bullet Impact; (4) a Stomach nine days after Operation for Perforation; and (5) a large Perineal Tumour (five pounds in weight) from a man, aged 80 years, who had carried it all his life

Dr BRUCE showed microscopical specimens and photographs of (1) Progressive Muscular Atrophy; (2) Amyotrophic Lateral Sclerosis; and (3) Glioma of the Pons

Mr. CAIRD showed · (1) A Tumour of the Pylorus; (2) Vesical Calculi; and (3) Vesical Papillomata

Mr THOMSON exhibited · (1) Two Feet of Small Intestine showing four tuberculous ulcers; and (2) a form of Syringe for Iodoform Injections, &c.

Dr. LOGAN TURNER showed: (1) Two Casts showing Congenital Malformation of the Auricle, and (2) a Larynx from a case of Primary Laryngeal Diphtheria

[illegible] ntestines from a case of so-called [illegible] Colon, and (2) Sarcoma of the [illegible] months.

EPIDEMIOLOGICAL SOCIETY.—A meeting of this society was held on May 17th, Dr. Patrick Manson, the President, being in the chair —Dr. E. Klein read a paper, which under the title of "What is Plague?" was a description, illustrated by lantern slides, of the bacteriological characteristics of typical Oriental plague He imagined that when the plague was raging as an epidemic there could be no difficulty in its diagnosis by men familiar with its clinical and pathological features, nor much when well marked cases occurred on board a vessel arriving from a plague-infected port, but there were circumstances under which a diagnosis could not be made without the aid of the bacteriologist, though happily the evidence thus afforded was unmistakeable. Dr. Klein then described two such cases in which the evidence was positive and one which led him to a negative conclusion The first was that of a sailor on board a vessel arriving in the port of London from Japan, Manila, and Hong-Kong, who had had for four weeks a huge swelling in the right groin that had suppurated and when incised discharged a quantity of foul grumous pus The next was that of a Lascar, who, taken ill on Feb 28th, was landed at a south-western port on March 12th, and, the vessel having obtained *pratique*, he was sent to the general hospital, the bubo being regarded as traumatic. In neither case had the patient been isolated, but none of the crew had been infected. The Lascar had a temperature of 103° F., and the disease had already assumed the septicæmic type Pus from each case was sent to Dr Klein, who found, among other bacteria, many which were typical of plague, the diagnosis being verified by subcutaneous and inoculation experiments. The third case was that of a boy who had never left London and was admitted into a hospital with inflamed glands. There was no evidence of the possibility of plague infection beyond the fact that his mother was a dealer in rags and old clothes, but cultures, subcultures, and inoculation experiments, with the bacteria, obtained first from the juice and later from the pus of the glands, alike gave negative results. The conflicting statements as to the infectivity of plague were easily explained by the difference between the types of the disease. In the pneumonic form the pulmonary exudation and expectoration teemed with the bacillus; in the septicæmic or hæmorrhagic types they swarmed in the blood, and hæmorrhages took place through the mucous membranes of the respiratory, alimentary, and urinary organs, but in the bubonic type they were rarely found in the blood and were practically limited to the spleen and lymphatic glands, so that until the bursting of the glands and the escape of the pus the possibilities of infection were small. In his experience the bacilli did not, as had been alleged, disappear when suppuration took place, and he felt that the failure to recognise the true nature of a non-venereal bubo might lead to disastrous results For instance, a seaman discharged in the Tyne on Oct 4th from a vessel arriving from Rosario travelled thence to Llandaff where he was taken ill and sent to the General Hospital on Oct 2nd, dying some days later from plague Had the abscess burst previously he might have been the centre of an outbreak of plague in the places where he happened to be at the time The bacillus pestis was morphologically fairly characteristic, blunt, straight, thick, with the protoplasm staining at the ends, leaving the middle third lighter. It did not liquefy gelatin but formed colonies with filmy margins and angular outlines In ghee broth the cultures formed a layer on the [illegible] talactite-like prolongations and [illegible] o the bottom of the flask like a [illegible] secreted a viscid material by which they adhered in clumps and to such an extent in agar that the culture could not be emulsified It was therefore impossible to verify agglutination in broths, but this adhesive material was dissolved by salt, and gelatin cultures could be then emulsified in the physiological solution, in which the blood serum of animals that had suffered from plague caused unequivocal agglutination in from 10 to 15 minutes when added in the proportion of 1 in 20, normal blood having no such action He had prepared a number of guinea-pigs by three successive injections of sterilised salt emulsions, and two of mild living cultures, and with their serums he had produced almost instant agglutination of the bacilli in cultures obtained from every part of the world. He had not yet had an opportunity of applying this test to suspected cases of plague in man, but in the preparation of Hoffmann's anti pest solution he had been able to test the samples, rejecting such as failed to confer agglutinative properties on the serum of animals inoculated with them.—Mr. J. Cantlie said that while there was no difficulty in recognising the marked types it was otherwise with the milder, and among the seven separate invasions during the past year he had been unable, except at Glasgow, to diagnose clinically any of the cases; three, indeed, had turned out to be leucocythæmia, glanders, and enteric fever. All cases of fever with enlarged glands, not venereal, should, however, be deemed suspicious, and he believed that some of these, one of which he described, might be cases of pestis minor, being indistinguishable from those that in the East, preceded, accompanied, and followed epidemics.—Dr. E J McWeeney of Dublin suggested that even if they did not fulfil Dr. Klein's bacteriological requirements they might develop into the true plague, that the virus *vires acqueret eundo* —Dr. Herbert Williams said that cases such as those mentioned by Dr Klein might easily escape recognition, the more so since 5 per cent of Lascars had enlarged inguinal glands, but whenever there was suppuration or fever they were detained in the hospital of the Port of London and the contents of the glands were sent to Dr. Klein, when nearly all proved to be plague. It must not be forgotten that a venereal history did not exclude plague.—Dr. P. T. Adams remarked that at Bombay the plague was most prevalent in the cold season and during the monsoon when the cold or the rain led to overcrowding indoors. He believed that the infection nearly always gained access by some lesion, external or internal, as of the bare feet, or, in the case of the pneumonic form, catarrhs of the air-passages. Haffkine found that the bacillus was enfeebled by exposure to light and air.—Dr. Reginald Farrar could confirm the feeble infectivity of the bubonic type, nearly all the cases he had seen among Europeans having been pneumonic. The only exceptions were the little daughter of an officer who had been bitten by a sick, probably plague-infected, squirrel and a friend of hers, both of whom died. Visitors to the hospital very rarely contracted it; it seemed to cling to the soil Formerly the population used to migrate *en masse*, but now they often remained in the infected houses.—Dr. Bulstrode asked Dr. Klein what evidence he deemed conclusive and whether bacteriologists like himself were ever in doubt as pathologists and clinical observers often were? He would like to know Dr. Williams's definition of an infected port, for he believed that epidemics mostly spread by unknown channels.—Dr. Turner had been sent to inspect some 30 cases in Queensland, mostly among Europeans; the majority were bubonic, one only was pneumonic, and but few were septicæmic. In none could he trace direct personal infection, except, perhaps, in the case of a post-mortem room porter. There not one of from 300 to 400 "contacts" contracted the disease, and very few of the thousands at Sydney. In Brisbane, Port McQuarie, and Cairns the rats were affected before the people were.—The President said that though Dr. Edington had stated that the rats were not affected at Cape Town, Dr. W. J. Simpson had found numbers of dead ones under the floor of infected houses and that it was an error to believe that the fleas of rats did not attack man. Doubtless, like those of dogs and fowls, they preferred their respective hosts, but like these they would bite man in default of their natural prey.—Dr. Klein, replying, stated that Dr. Edington now admitted the mortality among rats at Cape Town, and had sent cultures obtained from them to several bacteriologists, including himself. There was no doubt as to their being true plague bacilli, Dr. Edington's failure to recognise them having been due to his employing unsuitable media. As to the evidence he relied on that derived from cultures and subcultures confirmed or negatived by inoculation experiments, to which in future he would add the serum or agglutination test; when these agreed there could be no room for doubt.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.—An ordinary meeting of this society was held on May 17th at the Victoria Hospital for Children, Chelsea, S.W., Mr. D'Arcy Power being in the chair.—Mr. W. J. Susman exhibited, for Dr. Walter Carr, a case of Anæmia Infantum Pseudo-leukæmica. The child was admitted in January, 1901, and the spleen then reached down to the pubes, while the blood showed the characteristic changes described by von Jaksch in 1890. At the present time the spleen could be felt two inches below the costal margin. Cod-liver oil, iron, and mercury had been administered.—Dr. Wayland C. Chaffey inquired whether the remarkable reduction in the splenic enlargement was attributed to medicine or to diet.—Dr. Edmund Cautley thought such cases were unconnected with rickets or syphilis. The prognosis was extremely favourable.—Mr. Susman, in reply, said that beyond a "hot-cross bun skull" the patient showed no sign of either syphilis or rickets. In the treatment of these cases Dr. Walter Carr placed considerable dependence on iron.—Mr. Susman showed, for Dr. Montague Murray, a case of Spastic Paraplegia with Cerebral Symptoms. The disease followed whooping-cough and fright at the age of four years. There was no history of congenital syphilis. The symptoms included loss of power in the legs and to a less extent in the arms, a spastic gait, increased reflexes, widely dilated pupils, and defective intelligence. They could not apparently be classified under any recognised disease.—Dr. Edmund Cautley regarded the case as one of cerebral sclerosis, probably set up by encephalitis due to some infective fever. It resembled, he thought, the group of cases originally described by Little.—Mr. Alfred H. Tubby suggested a cerebral diplegia as the cause of the symptoms. It was important to distinguish such cases from Little's disease. Prognosis was bad.—Dr. J. Blumfeld inquired why the pupils were dilated.—Mr. Susman, in reply, said that nothing abnormal could be detected in the fundus oculi and no explanation could be offered of the dilated pupils, which reacted to light and to accommodation.—Mr. D'Arcy Power showed a case of Sporadic Cretinism which had been under the care of Dr. Wallis Ord in 1893.[1] The patient was now 11 years of age, and thyroid extract had been given for eight years. The child showed practically no signs of cretinism and was in the third standard at school.—Dr. Robert Hutchison remarked that under thyroid treatment there was generally greater improvement in the bodily than in the mental condition. But the present case proved how much might be done to improve the intelligence if treatment was commenced early in life. — Mr. Power, in reply, said that four and a half grains of thyroid extract had been given per diem.—Mr. D'Arcy Power showed a lad, aged nine years, who had suffered from Paroxysmal Hæmaturia and Albuminuria with Attacks of Renal Colic. The symptoms improved when the patient was in hospital, but they recurred when he returned to school. Hoping to find a stone Mr. Power had explored the right kidney by the lumbar route, but no obstruction was found either in the kidney or in the ureter. The wound speedily united, and the lad was on the eve of leaving the hospital when he showed signs of scurvy. This yielded to the ordinary remedies and there had been no recurrence of renal symptoms.—Dr. G. A. Sutherland thought that the hæmaturia, but not the pain, might be explained by scurvy. Was there any hæmoglobinuria in the case?—Dr. George Carpenter said that hæmaturia was not uncommon in children and that it usually got well under hospital dietary.—Dr. Blumfeld remarked upon the fact that the child developed scurvy whilst in hospital.—Mr. Power, in reply, stated that there was no hæmoglobinuria. The child was only a week or so in hospital before he showed signs of scurvy, which was possibly determined by loss of blood. The patient also passed mucus and blood by the bowel.—Mr. D'Arcy Power showed a child with a large Artificial Anus in the scrotum, following an operation for irreducible hernia.—Dr. George Carpenter read an abstract of his Investigations upon the Urine of an Infant from the age of 27 days onward. The fluid was systematically collected and was found to average 19½ ounces in the 24 hours, the largest quantity passed at any one time being four ounces. The specific gravity was generally from 1001 to 1002, never above 1005; a trace of albumin was invariably present. The quantity of urea was notably small, usually from a quarter to one-sixth of a grain per fluid ounce; the total amount passed in 24 hours varied from two and four-fifths grains to four and a half grains, averaging three and a half grains. Casts were not found. Dr. Carpenter gave an abstract of earlier observations on the subject, his own figures being on the whole considerably lower than those previously recorded.—Dr. Sutherland inquired whether the infant was in good health and breast- or bottle-fed.—Dr. Cautley requested particulars as to methods adopted in estimating urea and in searching for hyaline and granular casts.—Dr. Hutchison inquired whether the bodily weight was noted, since that would influence the proportion of urea. He had generally found that the amount of urea passed by infants was under-estimated. It was important to guard against any fallacy on the question of bottle-feeding.—Dr. Carpenter, in reply, said that the weight was not systematically recorded. The infant was bottle-fed, and took 20 ounces of fluid in 24 hours. Urea was estimated by Southall's bromide method. Casts were sought with the microscope after the urine had been carefully centrifuged.—The next meeting of the society will take place at Liverpool on Saturday, June 29th.

CLINICAL SOCIETY OF MANCHESTER.—A meeting of this society was held on May 21st, Dr. A. Wahltuch being in the chair.—Dr. A. T. Wilkinson demonstrated three cases of Lobar Phthisis and commented on the acute onset and chronic after-course of many such cases.—Dr. Milligan showed two cases of Tuberculous Disease of the Middle-ear and Adjoining Mastoid Cells In the first case, that of a child, aged one year, the disease had lasted ever since the child was five weeks old and had commenced with painless origin, the first symptoms noted being discharge from the ear, very shortly afterwards followed by facial paralysis. The peri-otic ganglia soon became enlarged and at the time that the child was admitted to hospital, five months after the commencement of the *trouble*, extensive disease within the middle-ear and mastoid process was found. Retro-auricular drainage was decided upon and at the present time satisfactory progress was being made, the treatment consisting mainly in antiseptic irrigation of the part. In the second case there was no facial paralysis; operative interference was undertaken with satisfactory results. A case of Lupus of the Right Nasal Chamber and of the Right Half of the Larynx was also shown. The patient, a *female*, aged 25 years, had suffered for three years and at the time of admission to hospital was complaining of considerable huskiness and slight stenosis of the right nostril. The right free margin of the epiglottis was infiltrated, numerous *lupoid nodules* being found upon its free margin, but no ulceration was detectable. Dr. Milligan made some *remarks* upon the course and treatment of tuberculous affections of the middle-ear and of the mucous membrane of the nose.—*Mr. G. H. Lan*[illegible] Skin Disease belongi[illegible] bacillary tuberculides [illegible]ly all the elements of [illegible] fore inoculable. (1) [illegible] which had commenced within the nares and spread externally by the nasal duct, showing remains of a dacro-cystitis; (2) A case of lupus verrucosus of the hand; (3) tuberculous ulceration, with epithelial proliferation, in the back of the hand, the result of a bite (glandular infection also along the arm); (4) extensive lupus vulgaris of the arm of 12 years duration apparently cured (six months ago) by pyrogallol dressings; and (5) scrofuloderma in the cheek of a child of typical tuberculous physique. There was no family *history* whatever of *tubercle*; the other children were healthy. 2 Toxin tuberculides in which the lesions presented giant-cells and epithelioid cells for examination, but no bacilli; not inoculable. One example only was shown—"papulo-necrotic toxi-tuberculide" as described by Hallopeau. Lesions were seen in groups, chiefly on the elbows and the knees. Small brownish-red papules with umbilicated necrotic centres were seen in various stages, among the earliest being a papule of the size of a pin-head and generally occupying the site of a hair follicle. Importance was attached to this group as indicating the presence of a tuberculous focus elsewhere in the body.

---

[1] THE LANCET, Nov. 4th, 1893, p. 1114, Case 2.

GLASGOW SOUTHERN MEDICAL SOCIETY.—A meeting of this society was held on May 9th, Dr William Watson, the President, being in the chair. The committee appointed by the society to draw up a representation to the General Medical Council in regard to their decision respecting the sale of drugs and poisons presented for consideration the following petition which was read and approved.—

Unto the Hono[illegible]

[illegible] the sale of drugs and poisons persons who are not qualified to act as chemists or pharmaceutical assistants, and thereby causes such persons *to commit* breaches of the Pharmacy Acts," it was unanimously resolved to lay before your honourable Council some of the points brought out in the discussion and to humbly pray that in *your further* deliberations on the case of Dr. Thomson you will take them into your favourable consideration. Firstly, your petitioners would remind you that the practice of keeping open shop, surgery, or dispensary in which drugs may be sold has been the custom in Glasgow and the west of Scotland from time immemorial This right is retained to this day and is distinctly conserved in the Pharmacy Amendment Act of 1869, which expressly states that medical practitioners shall not be affected by the first 15 clauses of the Pharmacy Acts. Your petitioners [illegible] submit, therefore, that medical [illegible] to practise pharmacy in the [illegible] Pharmaceutical Society; and, f[illegible] in this part of the kingdom of keepi[illegible] ance with the laws is most conven[illegible] been long educated to its use; and is practically necessary in many localities for the medical practitioner in the discharge of his professional duties Secondly, with reference to the [illegible] point out that the employ[illegible] assistants for the sale of [illegible] scheduled in the Pharma[illegible] the law Moreover, the [illegible]ing or poison except scheduled poison is the undoubted right of every citizen. Your petitioners fail, therefore, to see any reasonable cause for the *condemnation of the practice* of selling drugs and poisons—always excepting scheduled poisons—by trained drug assistants even though unregistered; *especially* in view of the fact that the sale of them is a common and legal act by persons who make no pretence to special [illegible] regarding general medical practice in Glasgow and the west *of Scotland*. On behalf of the Glasgow Southern Medical Society, containing over 200 members, your petitioners would express the earnest hope that the prayer of this petition will receive at the hands of your honourable Council due consideration and approval. And your petitioners will ever pray.

Signed in name and on behalf of the Glasgow Southern Medical Society in meeting assembled and the seal of the society affixed thereto at Glasgow this ninth day of May, one thousand nine hundred [illegible]mary.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—The annual meeting of this society was held at 20, Hanover square, W., on May 22nd, Dr. A. J. Harrison, *the President, being in the chair.*—Dr. C. H. Thompson showed a case of Adenoma Sebaceum in a woman, aged 27 years. The affection dated from infancy and the patient's mental development was poor.—Dr. W. T. Freeman showed a case of Lupus Erythematosus in a young man who had previously come before the society and had greatly improved under escharotic treatment.—Dr. T. D. Savill brought forward a case of Molluscum Fibrosum in a young man, shown to the society six months ago. In the interval the treatment adopted had been painting the tumours with sodium ethylate and some improvement had resulted.—Dr. Graham Little showed a case of Purpura of extensive distribution in a boy, aged 12 years —Dr. H. Waldo exhibited drawings of a case of Lupus Erythematosus, with multiple and symmetrical lesions. The patient had been under observation for some years after the drawings were made and was brought up by Dr. Waldo to this meeting to illustrate the almost complete disappearance of the lesions as figured in the drawings.—The President exhibited some microscopical specimens of Anthrax Bacilli and spores, kindly furnished from an unpublished case by Dr. J. O. Symes of Clifton, Bristol.—Mr. George Pernet showed a microscopical preparation of Fungus from a case of Tinea Unguium.—Dr. Waldo then read the Annual Address, choosing as his subject Lupus Erythematosus, and invited discussion of his paper under the following heads. 1. The clinical and pathological features of lupus erythematosus. 2. What was its etiology? 3. Was it related to lupus vulgaris? 4. Experiences of acute severe generalised forms described by Kaposi. 5. Mental *phenomena associated* with it. 6. *Could it be always distinguished* clinically?—Dr. Harrison, Dr. J. H. Stowers, Dr. Phillips-Conn, and Mr. Pernet took part in the discussion which followed the paper.—The election of officers *for the ensuing session was then proceeded* with and resulted as follows:—President: Dr. Harrison. President-elect: Dr. Stowers. Vice-Presidents: Dr. H. A. G. Brooke, Mr. Alfred Cooper, Dr. H. Radcliffe Crocker, Sir George Duffey, *Dr. Robert Liveing, and Dr. P. S.* Abraham. Treasurer: Dr. William T. Freeman. Honorary secretaries: Dr. Little and Mr. Arthur Shillitoe. Council: Mr. Hope Grant, Mr. Thomas J. Hitchins, Mr. George Pernet, Dr. *Phillips-Conn, Dr. H. Leslie Roberts, Mr. George* Sequeira, Dr. R. Travers-Smith, Dr Edward Stainer, Dr. F. Rufenacht Walters, Dr. Wilfred B. Warde, and Mr. Campbell Williams.

A CENTENARIAN.—It is stated that Mrs. Neve of St. Peter Port, Guernsey, who was born in the year in which Louis XVI. of France was guillotined and Napoleon Bonaparte left Corsica, completed her one hundred and eighth year on May 18th. She was born in the house in which she now lives.

Reviews and Notices of Books.

Surgical Experiences in South Africa, 1899-1900. By GEORGE HENRY MAKINS, F.R.C.S. Eng., Surgeon to St. Thomas's Hospital. London: Smith, Elder, and Co. 1901. Pp. 486. Price 16*s*.

THIS book, which is mainly a clinical study of the nature and effects of injuries produced by bullets of small calibre, is a record of Mr. Makins's personal experiences, and as such is a valuable contribution towards that more complete surgical history of the South African war which will no doubt be undertaken by a responsible military medical officer when the whole of the statistics are available. The general trend of the observations goes to show that the employment of bullets of small calibre is all to the advantage of the men wounded, except in so far as the increased possibilities of the range of fire may augment the number of individuals hit; also that such variations as exist between wounds inflicted by bullets of the Martini-Henry and Mauser types respectively depend rather on the form and bulk of the projectile than on any inherent difference in the nature of the injuries. The main peculiarity of the deeper injuries is the frequent strict localisation of the direct damage to an area of no greater width than that crossed by narrow structures of importance such as arteries and nerves. Mr. Makins tells us that of surgical diseases the one most special to the campaign was the veldt sore. His experience is opposed to the hurried removal of the wounded from the field of battle and he feels strongly in favour of stretcher parties for this work. His observations also strongly illustrate the necessity of possessing stationary hospitals of greater mobility and a higher degree of equipment than the service at present possesses. He thinks that the amalgamation of the field hospital and bearer company into one unit is much to be desired, both for economy of working and the more equal distribution of duties to the medical officers engaged. Mr. Makins is an advocate for the substitution of the tortoise tent for the service marquee, for while admitting a warm preference for the appearance of the service pattern he says: "I think it is indubitable that the other is the more useful." In his remarks on the difficulties of operative surgery he alludes to the lack of facilities experienced in getting water for use at operations and to the draughts in the tents carrying the dust from the camp, the latter as one of the commonest troubles. While praising the excellence of the field hospitals Mr. Makins indicates that the stationary hospitals were not, in his opinion, so perfectly conceived or organised, and he remarks that the difficulties experienced in supplying all that was necessary will, he hopes, go far towards securing greater facilities and rights of transport to the Royal Army Medical Corps in the future.

Mr. Makins lays stress on the circumstance that the experience of the present campaign has scarcely justified the early prognostications expressed as to a greater increase in the number and severity of wounds amongst the combatants, the comparative immunity being explained on two grounds—the increased distance which for the most part separated the two bodies of men, and the want of effectiveness of the small-calibre bullet as an instrument of serious mischief. His observations lead him to the conclusion that at mean ranges, both in striking force and as regards the area of the tissue affected, the Lee-Metford is a superior projectile to the Mauser. On the other hand, the ease with which the latter undergoes deformation renders it the less desirable bullet to receive a wound from when not in its normal shape and condition. With reference to entrance and exit wounds he observes that when the range has been short and the velocity high it is often difficult to discriminate between the two apertures, but there is a general tendency of the margins, and even of the area surrounding the exit wound itself, to be somewhat prominent. The wound of exit offers far more variations in appearance than does that of entry. He draws attention to the multiple character of the wounds, to the small "bore" of the tracks, and to the tendency of the injury to be localised to individual structures of importance. The most striking examples of small even tracks were seen in punctures of the elastic and practically homogeneous lung tissue where the wounds were extremely small. He tells us that the tendency of simple wounds to run an aseptic course was very marked, and when suppuration did occur, with apertures of the normal small type, this was always the result of infection from the skin. While not claiming any cauterising action on the tissues by the bullet Mr. Makins inclines to the probability of the heat to which the surface of the bullet is exposed exerting a cleansing action on the projectile, and he remarks that the frequency with which portions of cloth were introduced from the kilt was one of the strongest surgical objections to its retention as a part of active service uniform. He is inclined to think that a general tendency to primary union and the absence of suppuration will always be a feature of wounds from bullets of small calibre, a mechanical factor of great importance existing in the spontaneous collapse and automatic apposition of the walls of the track. The illustrations of ruptured ricochet and grooved bullets are very instructive; it is extraordinary into how many fragments a Lee-Metford or a Mauser bullet may break up if it strikes a hard body while travelling at a high rate of velocity. Fragmentation is shown in some of the skiagrams. On the whole shock was by no means a prominent symptom in the small-bore injuries of soft parts; although initial pain might be slight or absent, all the patients complained of pain of varying severity at the end of an hour after the reception of the wound. In nearly all cases the rush of the bullet determined the initial flow of the blood from the exit wound, and this aperture usually furnished any hæmorrhage of importance. Mr. Makins corroborates Colonel W. F. Stevenson's observations[1] that limbs, the subject of marked local shock, are specially liable to furnish septic discharges. In speaking of primary hæmorrhage Mr. Makins says that external hæmorrhage from the great vessels of the limbs, or even of the neck, proved responsible for a remarkably small proportion of the deaths on the battlefield, but that a considerable number resulted from primary internal hæmorrhage. Secondary hæmorrhage in simple wounds of the soft parts by small calibre bullets was, he says, decidedly rare. The experience of the campaign fully bears out that of the past as to the steady increase of the number of aneurysms from gunshot wounds in direct ratio to diminution in the size of the projectiles employed. Uncomplicated cases of aneurysmal varix, as might be expected, were less common than were those in which the arterio-venous communication was accompanied by the formation of a traumatic sac. Mr. Makins expresses a strong opinion to the effect that in these injuries no operations should be undertaken before a period of from two to three months after the injury unless there is evidence of progressive enlargement. In the chapter on Injuries to the Bones the following are given as the special features of fractures caused by small-calibre bullets: (1) the nature of the exit wound which in a proportion of cases exhibited the so-called "explosive" character; (2) the presence of "local shock"; (3) the striking contrast of clean perforation and extreme comminution in different cases; (4) the occasional occurrence of fractures of a very high degree of longitudinal obliquity,

---

[1] Wounds in War, p. 83

(5) the rarity of transverse fracture; and (6) the tendency of longitudinal fissuring to stop short of the articular extremities of the bones. Perforations, although common in cancellous bone, were rare in the compact shafts, but Mr. Makins saw several such complete pure perforations. He draws attention to the great effusion into the knee-joint resulting from the vibration transmitted to the limb in the case of fracture of the femoral shaft. All short range lesions of the short bones seen by him were of the perforating variety. Of all the splints he saw in use he thinks the best were wire splints and the Dutch cane folding splints which are duly depicted in this volume. Of fractures of the pelvis he writes: "When uncomplicated they were of little more importance than simple wounds of the soft parts" He never saw a stellate fracture of the ilium. Fractures of the femur formed one of the most serious classes and one of the most fertile sources of mortality in the base hospitals. Mr. Makins has no doubt that Hodgen's splint is the best method of treating fractured thigh in the stationary hospitals The introduction of small-calibre bullets has robbed joint injuries of much of their importance; during this campaign clean wounds of joints were little more dreaded than wounds of the soft parts alone. The chapter on Injuries to the Head and Neck reveals many points of great interest, and the author feels certain that a long roll of secondary troubles await record in the near future. Injuries implicating the spinal medulla appear to have been proportionately the most fatal of any in the whole body to the wounded who left the field or field hospital alive.

Mr. Makins writes in regard to prognosis that wounds of the chest furnished the most hopeful class of the whole series of trunk or visceral injuries, and he relates the striking fact that the most common and troublesome complication of wounds of the chest, hæmothorax, was usually the result of wound of the chest-wall and not of the lung. Secondary empyemata not uncommonly followed incision of the chest or excision of a rib for draining a hæmothorax.

The pages devoted to the treatment of pulmonary wounds are very practical and are carefully written, and the cases and charts are very instructive. No chapter of military surgery was looked forward to with more eager interest than that dealing with wounds of the abdomen and in none did greater disappointment lie in store. Wounds of the intestinal tract, although they showed themselves capable of spontaneous recovery in a certain proportion of the cases observed, afforded but slight opportunity for surgical skill and the results generally deviated but slightly from those of past experience. Failure was due to the severity of the local injury or to the operations being necessarily undertaken at too late a date. In Mr. Makins's experience the wounds of the abdomen which proved the most dangerous were (1) wounds passing from one flank to the other; (2) antero posterior wounds in the area of the small intestines; and (3) wounds passing directly backward from the iliac regions. The 70 pages on injuries of the abdomen are well worth reading, but they lead the reader to the conclusion that surgical interference has been a failure and that the preconceived opinion, that laparotomy was in all cases of penetration the proper line of treatment, was certainly erroneous. In concluding his remarks on abdominal injuries, however, Mr. Makins adds that "the impressions are those that were gained as the result of the conditions by which we were bound in South Africa. ...... Under really satisfactory conditions nothing I saw in my South African experience would lead me to recommend any deviation from the ordinary rules of modern surgery."

The volume is well illustrated and Messrs. Smith, Elder, and Co. may be congratulated on the way in which they have published the work.

Congrès International de Médecine Professionnelle et de Déontologie Médicale. Edited by Dr. JULES GLOVER, General Secretary of the Congress. Paris: Masson et Cie. Pp. 697. Price 5 francs (free to Members of the Congress).

THIS is the official report of the International Congress of Medical Deontology and Ethics which was held, under the patronage of the French Government, at the Paris Faculty of Medicine in July, 1900. At the time we published lengthy articles from our Special Correspondent describing this congress, but, of course, it was impossible within the limits of our space to deal fully with all the papers read and the discussions that followed. Even the 697 pages before us do not give the discussions in full, for the congress was divided into several sections and sat during a whole week. Though this was the first time that a congress dealing exclusively with economical and ethical problems as they affect the medical profession had been held no less than 27 nationalities participated and were represented by 444 delegates and members. The Governments of France, Belgium, Portugal, Russia, Ecuador, Japan, Roumania, Austria-Hungary, the United States of America, Italy, Turkey, Norway, Sweden, and Venezuela sent official representatives to attend this congress and to report to their respective Governments upon the nature of the proceedings This showed on the part of these Governments an enlightened appreciation of the programme and probable influence of the congress. The questions at issue involved the legal, and what is, or should be, the illegal, practice of medicine, and in many other respects dealt with matters that must be partially, and sometimes wholly, settled by legislation. Though a Government only governs the people it represents, if several nations agree upon the necessity of certain reforms or new laws such a concurrence of opinion at least gives greater moral weight to the arguments of those who, in their respective countries, take the initiative in promoting legislation in this direction. Therefore, it is to be regretted that the British Government was not officially represented. It is further and still more regrettable that though Mr. Adolphe Smith, after reading a paper on the Organisation of the Medical Profession in Great Britain, was able to present a list of 35 British medical unions or associations formed for the special purpose of dealing with the questions which the congress had assembled to discuss, the number of British representatives actually present was very small. Fortunately, the publication of this list in the report before us will serve to show that the members of the profession in Great Britain and Ireland have taken action in many directions and that, if they were but feebly represented in Paris, they have not been idle at home.

The proceedings of the congress will serve to demonstrate very forcibly the remarkable similarity of the economical problems which face the members of the medical profession in all countries It will further show that in all countries the same idea prevails as to the means that should be employed to deal with the grievances that arise therefrom. On all sides the demand has arisen for organisation. The methods of organisation differ somewhat in the various countries, but the object is always the same. In Belgium, France, and the United Kingdom the mode of action—the formation of independent medical unions—is similar. In Germany and Austria the tendency is in favour of medical chambers, which differ from unions, associations, syndicates or guilds in so far as they are official organisations possessing legal powers, and with membership rendered obligatory by law. But in action both strive for the same end—the maintenance of the dignity of the profession and a high code of ethics, the prevention of abuse such as that involved by well-to do people availing themselves of medical charities or the degradation of the practice of medicine by the smallness of the remuneration paid for contract work. Then the conditions under which the practice of medicine should be allowed were also lengthily discussed and form part of the programme of all medical unions and medical chambers. As a branch of this latter subject we find the question of the medical man who practises in a foreign country, and on this Dr. J. Schwalbe, editor of the *Deutsche Medicinische Wochenschrift*, read a lengthy paper, reviewing the law of various countries with regard to foreign practitioners. Dr. Schwalbe concluded his paper by urging that protectionism should not interfere with scientific progress, but that, nevertheless, it arises as a natural consequence of the great and vital competition between nations which is becoming more and more keen every day. It is thus, he said, that hunger dominates generosity, just as might rules right. Therefore there is an ever-present reaction. On one side we see the great modern progress of science which serves humanity and intellectually unites the peoples of the world; while, at the same time, we see on the other side the increasing difficulties of material existence which have created the protectionism that economically divides nations one against the other. On this subject Dr. Greenwood, delegate of the Brussels Medical Graduates' Association of England, contributed a paper in which he maintained that academic distinctions and honours should be cosmopolitan, and that the State laws went beyond their province when they insinuated that degrees given by a foreign university were worthless. The proper criterion of a university's degree was, he urged, the opinion of the world.

On the question of hospital abuse a great amount of information was given, not only with regard to the hospitals of Paris and the principal French provincial centres, but also from many other countries. Thus the system of paying hospital patients which prevails, notably in Sweden, was explained and condemned. It was urged that hospital patients should be strictly examined as to the place where they live, the work which they do, the wages that they earn, and even as to the financial position of their near relations, so that the hospitals might be reserved exclusively for the treatment of the poor. But here a difficulty arose from the international character of the congress, as the question assumes a somewhat different aspect when the hospitals, as in England, are maintained by voluntary subscriptions and when, as in most continental countries, they are municipal institutions maintained by public taxation. Mr. E. Montefiore, on behalf of the Charity Organisation Society, contributed a paper on Hospital Abuse in London and advocated the formation of a Central Hospital Board for London. Of course, this centralisation does already exist where the hospitals belong to the municipalities. The question of poor relief taking the form of medical attendance on the poor in their own homes was also lengthily debated. Then there were the cases of accidents and the right of a person to be treated at a hospital when his employer had insured him against such accidents. This led up to the insurance companies, to the medical aid associations, to the friendly societies—in fact, to all the topics which in these columns we have grouped together under the general heading of the Battle of the Clubs. It is impossible here to summarise all that was said on these questions for it is spread over several hundred pages. The reader should consult the volume itself.

The injury that sometimes results from massage that is not performed under medical surveillance was explained and denounced, as also were all forms of special treatment practised by others than fully-qualified medical men. Then prescribing by druggists, the advertising of quack remedies and secret specialities in general newspapers, and many other manœuvres which deprive the medical profession of some of their clients and at the same time endanger public health, were lengthily discussed and energetically condemned. But the most delicate subject was that which comes more precisely under the denomination of "deontology"—namely, the relations of medical men towards each other. This discussion had for its basis a very lengthy and able paper by Dr. Grasset of Montpellier. But it was generally agreed that the duty of the medical practitioner towards his brethren in the profession has nowhere been clearly defined. Where, for instance, does advertisement begin and end? what about medical men who are shareholders in a hydro medical establishment, a sanatorium, or a drug manufactory? under what conditions can a patient when still ill change his medical adviser? what constitutes the consulting physician? what is the position of the travelling doctor? under what conditions may medical advice be given gratuitously? Fo all this a code of medical deontology is necessary, but wh possesses sufficient authority to draw up such a code? T create such an authority, to confer upon it the necessar moral weight, was the principal purport of the congress Dr. Grasset concluded by saying: "All we ask of th congress is this: that it will seriously consider one thing the creation of a superior council of professional medicin charged with fixing and interpreting the general principle of medical deontology (the duties of doctors to each other to be renewed by election only, on a very wide basis thus rising above questions of personal interests; having authority over all, by its origin, and from the independenc of its members; capable of creation without laws, and without imposing any financial tax; creating no new difficulty o hindrance to the free exercise of our profession; having only a moral authority, which is sufficient for honourabl persons who only ask to know what is their duty in orde to perform it."

These proposals being widely approved the congress agreed to meet again in 1903 at Brussels and, in the meanwhile, to endeavour to constitute an international committee, not only for the purpose of preparing for the next congress, but also to draw up a draft of a code on medical deontology. From these few words some idea may be gathered of the scope of the report before us. As it is the description of an international congress held in Paris, the greater part of the papers are published in French, but some are in English and German, and there are summaries of the more important conclusions in Italian as well as in English and in German. Altogether this is a valuable volume for all who are interested in the economical position of medical men and who are striving to organise the profession for the defence of its material interests and the maintenance of its dignity and high ethical standard.

Students' Manual of Medical Jurisprudence and Public Health. By G. HAXTON GIFFEN, L.R.C.P. & S Edin., Senior Demonstrator in Anatomy, Minto House, Chambers-street. Edinburgh: William Bryce. 1901. Pp. 330.

WE are not advocates for condensed text-books, but we believe that the author of this short work is correct in saying that in the first two portions, which are concerned with Forensic Medicine and Toxicology, there is a sufficient amount of information for the pass examinations of the Colleges, although we should hesitate to assent to the suggestion that a candidate could pass an honours examination simply from reading the pages of this volume.

The portion dealing with Forensic Medicine is well arranged and certainly contains a large amount of information in a small space. The use of comparative tables is largely taken advantage of, and these should be especially useful to the student to study immediately before presenting himself for examination, as it enables him to classify his knowledge in such a way that he can enlarge upon the facts so arranged more easily than by hastily reading over whole chapters. Illustrative cases are naturally not quoted in a book of this size. The accounts of the various poisons are brief but exact, the symptoms, post-mortem appearances, and tests receiving due attention.

In the third portion, that on Public Health, details of practical sanitation and methods of performing tests have not been included, as the book is not intended for either outdoor or laboratory work.

Our Army in South Africa. By R. SCOT SKIRVING, late Consulting Surgeon to the Australian Contingents. Sydney and Melbourne: Angus and Robertson. London: The Australian Book Company. 1901.

THIS little book, or pamphlet, of 43 pages is interesting and worth reading because of its freshness and of its stating the impressions of a civilian colonist who has actively pursued his medical calling in the field. It is mainly made up of the amplified entries of the daily journal which its author kept during the months which he spent at the seat of war in South Africa.

The author's observations extend over only a comparatively short space of time and a somewhat limited field, but they are, if of the "impressionist" type, nevertheless valuable because based on actual knowledge and experience. So far as regards his criticisms on the military aspects of the campaign he speaks with diffidence, knowing full well how a layman is likely to err when he criticises work altogether outside that of his own profession. But with respect to the medical aspects of the campaign he tells us in his preface that he feels on more familiar ground. He trusts that in anything he has said he may not hurt the sensibilities of that most gallant body of men—the Royal Army Medical Corps—and expresses a sincere desire rather to help the officers of that corps to a better position than to find fault and to suggest no remedy.

The subject has an interest at the present time and it is well to see how things struck an able civil surgeon without previous experience in war or any previous special knowledge of military organisation The author shrewdly remarks that the success which followed Lord Roberts's plan of campaign was partly due to the ignorance of strategy of the larger schemes of a campaign on the part of the Boer leaders, notwithstanding that they are past masters of all that pertains to individual warfare in a difficult country, "which aims at doing the maximum of evil to your enemy with the minimum to yourself." As we took an opportunity of saying at the beginning of the Boer campaign, they lost their great opportunity in not making at an early stage of the war a dash towards the coast. The author has not formed an elevated estimate of the Boer character, and he evidently thinks that had we throughout adopted severe measures hostilities would have been more quickly brought to an end Speaking of our non commissioned officers as a body he regards them as the very backbone of the British Army and looks to their much more frequent promotion to the commissioned ranks as a principal means of making the British army an efficient modern fighting force. In this war the special services—the artillery, the engineers, the transport, and the commissariat branches—appeared to him, as a layman, to be particularly well served. He thinks a British officer needs no artificial incentives to the display of personal valour and has evidently some misgivings lest the Victoria Cross should prove an incentive to rashness and a bait, even if of a very noble kind, for self seeking.

Touching the medical arrangements of the campaign the author has much to say. He thinks that if any grave blame attaches to anyone it should fall upon those who planned the campaign as a whole rather than on the medical heads and he advises the public to pause before they pass a hasty judgment based on Mr. Burdett-Coutts's representations He saw most of the horrors which Mr. Burdett-Coutts takes as his text and contends that the majority were wholly unavoidable, and as he was at Bloemfontein and was personally acquainted with all the circumstances he is in a position to speak authoritatively about all that he saw and describes What he has to say about the hospitals at this place and at Sterkstrom is worth reading. Taken as a whole it is strongly corroborative of all that we have maintained. "The fact," he says, "that the Australian medical units possessed their own transport gave them an enormous advantage in this respect over their imperial *confrères.* I am fully convinced that the ambulance service of an army ought to be quite independent of the transport department."

As regards the Royal Army Medical Corps, he believes "that no more honourable, hard-working, and willing set of public servants are to be found in Her Majesty's service. Many of the cruel things I have heard said of these men, who give freely of their best to the State, fill me with indignation. None the less, any outside observer can see plenty of faults both in the professional training of the men and the routine of the department." And to a consideration of these—more especially as to the point of professional training—he briefly addresses himself. Although we do not think that anyone, however able, who is not possessed of some military knowledge and experience is in a position to form any accurate opinion concerning many matters of army hospital organisation, we are nevertheless always glad to hail fresh and original views derived from recent and actual experience The author does not, by the way, approve of the practice of granting military titles to medical men, but medical officers would probably contend that if only he were in the army he would recognise the advantage that these confer, especially on field service, and that they simply follow and are a corollary of the unification scheme of army medical service organisation.

This little addition to the literature of the war by the late consulting surgeon to the Australian contingents may be taken, as we have said, as well worthy of being read and considered.

LIBRARY TABLE.

The Laws of Scientific Hand Reading By WILLIAM G. BENHAM. London and New York: G. P. Putnam's Sons. 1901 Pp. 650. Price 18*s* —This work, which is beautifully illustrated and got up, is evidently written by one who believes in his subject. Palmistry, like so many other quasi-scientific studies, has doubtless a substratum of truth. Thus the carriage of a person's hands upon his entering a room no doubt gives a partial clue to his character. The shape of the hands again gives indications of a particular diathesis and the effect produced upon the shape of the fingers—e g., clubbing—by various morbid conditions is known to every medical man. But that mounts and lines known under fanciful names give indications of qualities or of future events, or of things likely to lead to these events, is, we will not say impossible, but at any rate not proven. Mr. Benham's views upon physiology are peculiar. Thus on page 106 we find: "As an aid to memory .. . remember the vital life current entering the body through the tips of the fingers. The more pointed the tip the easier this current enters, *consequently the more direct the connecting link between the subject and its Creator.*" So on page 13 Mr Benham says: "At the moment the child is born and before it has given the first cry, or taken air into the lungs, the fingers extend with a *quick, spasmodic jerk.* . . I believe that *at the moment* the fingers of the child extend and become straight and rigid that *life*, the *vital spark* which sets the human machinery in motion, ... is projected into the child through the ends of the *rigid fingers* and thus becomes the gift of God to His creature."

Ballast By MYRA SWAN. London: Longmans, Green, and Co. 1901. Pp 360. Price 6*s* —We do not like the pathological novel. As yet in this country the novelist, although he or she discusses syphilis and drink, has not arrived at the treatment in romance of excessive morphiomania, or Sapphism, or vaginismus, all of which diseases will be found in French novels. But, on the whole, pathology is best treated in medical books. "Ballast" is apparently named after the principle with which Bottom's dream was named, for the heroine had no ballast, and hence she took to drinking, beginning with Vin Mariani and proceeding through absinthe to brandy. Her sister Grey, who nursed her with unparalleled devotion, is a very noble character and well drawn. Even she was erratic at times, as when with her lover in a hansom she remarked, "Smoke into my hair, so that when I brush it out the smell will remind me that it is not all a dream." It is rather reminiscent of the gentleman who said, "Pour it over me; I like the smell." But despite this one lapse from dignity we are sincerely glad that Grey eventually found happiness. We must give Miss Swan credit for her portrait of the dipsomaniac.

Modern Natural Theology. By F. J. GANT, F.R.C.S. Eng. London: Elliot Stock. 1901. Pp. 162. Price 2*s.* 6*d.*—Mr. Gant's little book consists of two parts—the first dealing with the testimony of a Supreme First Cause to be found in the workings of nature and the second with Christian evidences or apologetics. His argument is, shortly, that Christian evidences lead to the discovery of a Person who is "One with God and man," that this Person is One also with the Supreme Moral Lawgiver, and therefore One with a Personal Creator who is immanent in nature.

Jerusalem: a Practical Guide to Jerusalem and its Environs. By E. A. REYNOLDS BALL, M.A. London: Adam and Charles Black. 1901. Pp. 238. Price 2*s.* 6*d.*—Jerusalem is, in our opinion, a place which the traveller who does not wish to be disillusioned should avoid. Centuries of pilgrimage have—there is no other word—vulgarised it, and its associations, intensely sacred as they are and ever must be, will be better felt by imagination than if the quarrels between different bodies of Christians, to say nothing of the somewhat numerous fictitious holy places, are seen. But for those who wish to go to Jerusalem for the pleasure of "doing" it we can recommend Mr. Reynolds Ball's little book. It is clearly and simply written and there are some useful maps. We are glad to see by a quotation prefixed to the book that Mr. Reynolds Ball is acquainted with the delightful Evagatorium Fratris Felicis Fabri. Probably, except for the advent of modern tourist agencies and a railway, Jerusalem is much the same now as it was in the fifteenth century.

Atlas und Grundriss der Pathologischen Anatomie. (*Atlas and Elements of Pathological Anatomy.*) Von Obermedizinalrat Professor Dr. O. BOLLINGER. Band II., Zweite, stark vermehrte Auflage. 1901. München: Verlag von J. F. Lehmann. 1901. Pp. 190. Price 12 marks.—This volume of Lehmann's series appears as a second edition. It has been much enlarged and it now contains 72 coloured and 29 black-and-white illustrations, so that it forms a fairly complete atlas of that part of pathological anatomy with which it deals. The text consists of a somewhat brief account of the subject with descriptions of the plates. From these illustrations a student should be able to gather a very fair idea of the gross anatomy of many pathological conditions. It is, perhaps, advisable to mention that the work does not deal in any way with the minute anatomy of the diseases portrayed; that is contained in a special volume of pathological histology. As the coloured plates form the chief part of the work it is only right to mention that they are nearly all most admirably executed. In some cases, as often happens in coloured illustrations, the reds are too red and other colours are too pronounced, but these slight faults do not materially impair the accuracy of the drawings. The general get-up of the work is in accordance with what we have learned to expect from the publishers.

Eye, Ear, Nose, and Throat. By WILLIAM LINCOLN BALLENGER, M.D., and A. G. WIPPERN, M.D. With 165 Engravings and 6 Coloured Plates. London: Henry Kimpton. 1901. Pp. 512. Price 10*s.* net.—The portions of this book which deal with diseases of the ear, nose, and throat are less profusely illustrated than that which is devoted to diseases of the eye. In general the information given is good and there are many practical suggestions which are of distinct value; unfortunately, Dr. Ballenger commits himself to statements and advice which seriously detract from a work otherwise eminently suited for the class of readers for whom it is written, as examples of which we take the following. In the section on diseases of the ear Dr. Ballenger describes most minutely how and when to divide the various layers of the tympanic membrane; in that on the nose "swell bodies" is the term used for erectile bodies; and in that on the larynx Dr. Ballenger seriously states that a patient can adjust his epiglottis so as to enable the examination of the larynx to be easily made. It is the insertion of such careless or erroneous matter that renders the book unsafe; had the author confined himself to accepted views he would have been more successful in his task.

Cours de Minéralogie Biologique. Troisième série. Par J. GAUBE (du Gers). (*Lectures on Biological Mineralogy.* Third series. By J. GAUBE of Gers.) Paris: A. Moline. 1901. Pp. 331. Price 4 francs.—This volume contains a curious discussion upon the mineral composition of the muscles of man, woman, and of some animals. The author maintains that the degree of mineralisation has much to do with conditions of health and he suggests treatment by means of mineral matters that are normal to the human body in accordance with the indications from this point of view. Thus he speaks of the "remineralisation" of man and in the last lectures he discusses the biochemical properties of bacteria and the application of iodobenzyl iodide of magnesium in the treatment of bacterial diseases in general and in the treatment of bronchitic pneumonia in particular. The high rate of iron contained in the human muscle distinguishes it sharply from the muscle of animals. Again, woman's muscles differ from those of man by containing a greater quantity of organic matter, of potassium, and of soda and a smaller quantity of calcium and magnesium. We are not quite clear as to whether he means that the iodobenzyl iodide of magnesium has anything to do with ministering to the mineral needs of man, or that he merely regards it as a drug capable of acting on the whole family of infecting agents—that is, on the pathogenic bacteria. In the last two lectures he states that the action of this new compound has been instrumental in effecting a reduction in the mortality due to pneumonia. The methods of analysis described for the estimation of mineral matter are elaborate and evidently exact.

What to Eat and Drink. By CHARLES HYATT-WOOLF. London: The Gutenberg Press, Limited. 1901. Pp. 152. Price 1*s.*—For the most part this book consists of a series of articles reprinted from *Science Siftings*, of which periodical the author is editor. In many instances the analyses do not convey much information, as, for example, that of tobacco, of Yorkshire relish, or of certain cough specifics. In the analysis given of certain wines the author falls into the fallacy of recording the percentage amount of constituents to the fourth decimal place. We are perfectly certain that there is no method of analysis known which will record exactly the one-ten-thousandth part of a constituent in a hundred parts of the substance. The title of the book, "What to Eat and Drink," can hardly relate to at least two of the articles described—namely, tobacco and kelpion (a stainless iodine compound).

Arsenic. By J. ALFRED WANKLYN, M.R.C.S. London: Kegan Paul, Trench, Trübner, and Co., Limited. 1901. Pp. 106. Price 2*s.* 6*d.*—Mr. Wanklyn in this book censures the commission of experts appointed by the Manchester Brewers' Central Association, Professor Delépine and a few others, for their conduct in connexion with the recent epidemic of arsenical poisoning by beer. "Since the year 1864 some branches of chemical analysis have decayed in England. The following passage quoted from the report of the commission of experts appointed by the Manchester Brewers' Central Association to investigate the circumstances of the arsenical beer poisoning affords a curious example." The passage referred to relates to the adoption of the Reinsch test. The count which Mr. Wanklyn sets forth against Professor Delépine is that he stated that Marsh's test is inapplicable to beer which had not been previously treated so as to break up the organic matter, and Professor Delépine's knowledge of the test, Mr. Wanklyn ventures to think, was not derived from Marsh's original paper, "but must have come second-hand from some inaccurate text-book." And so the committee of experts are wrong, Professor Delépine is wrong, and everybody else is wrong who disposes of Marsh's test in favour of Reinsch's test. We quite agree with Mr. Wanklyn that there is still some mystery about the nature of the poisoning which we hope will be cleared up by the Royal Commission, and it is also possible, as Mr. Wanklyn believes, that the arsenic existed in a hitherto unknown combination, perhaps an organo-metallic one. The process of fermentation may have evolved a new arsenical compound more poisonous than arsenic itself. The book contains Marsh's original paper which was read at a meeting of the Society of Arts in 1836. In this account there is an obvious error in stating that arseniuretted hydrogen has precisely the same *colour* as arsenical fumes.

JOURNALS AND MAGAZINES.

The Journal of Anatomy and Physiology. Conducted by Sir WILLIAM TURNER, F.R.S., D. J. CUNNINGHAM, F.R.S., G. S. HUNTINGDON, M.D., A. MACALISTER, F.R.S., and J. M'KENDRICK, F.R.S. Vol. XXXV., Part 3. April, 1901. London: Charles Griffin and Co., Limited. 8vo. Price 6*s.*—The articles contained in this number of the *Journal of Anatomy and Physiology* are: 1 On the Topographical Anatomy of the Abdominal Viscera in Man, especially the Gastro-intestinal Canal, by Christopher Addison, M.D. Lond., Professor of Anatomy, University College, Sheffield, with three plates and two tables. In this article useful tables show the average positions of the parts in the ileo-colic region of the large intestine and of the solid viscera. 2. Notes on the Hairslope in Man, by Walter Kidd, F.Z.S. The direction of the hair in different parts of the body, as the chest, back, legs, arms, and head, is carefully given. The author of the article considers that in man the direction of the hairslope is in many regions determined largely by external forces and by habits peculiar to man. 3. Abnormal Veins in the Frog, by Thomas W. Shore, M.D. The veins described are an unusual renal portal vein, a vein connecting the renal portal and the pulmonary, mesenteric, splenic, and hæmorrhoidal veins connected to the left lung, and an innominate vein. 4. A Contribution to the Morphology of the Human Urino-genital tract, by D. Berry Hart, F.R.C.P. Edin., with two plates. 5 Contribution to the Pathology of the Bladder and Ureter; Extroversio Vesicæ and apparent low Implantation of the Ureter End, by D. Berry Hart, M.D., F.R.C.P. Edin., with a plate. 6. Osteology of the Penguins, by R. W. Shufeldt, M.D., C.M.Z.S., with a plate. 7. Notes on the Osteology of Scopus Umbretta and Balæniceps Rex, by R. W. Shufeldt, M.D., C.M.Z.S., with a plate. 8. The Joint in a Fowl's Tongue and its Vocal Function, by W. Ainslie Hollis, M.D. Cantab. Dr. Hollis considers that this structure is the effective agent in producing the "cluck" of the hen. 9. On the Notches and Fissures of the Spleen and their Meaning, by F. G. Parsons, F.R.C.S. Eng., Lecturer on Anatomy at St. Thomas's Hospital. The author of the article considers the notches of the spleen to be mere crumplings of the organ due to its growth and to the pressure of the surrounding viscera. They often correspond to the position of vessels. Lastly, we find the Proceedings of the Anatomical Society of Great Britain and Ireland for February, 1901.

Analytical Records

FROM

THE LANCET LABORATORY.

TABLOID, APOMORPHINE HYDROCHLORIDE AND STRYCHNINE HYDROCHLORIDE.

(BURROUGHS, WELLCOME, AND CO., SNOW-HILL-BUILDINGS, LONDON, E.C.)

THIS tabloid is intended for the convenient preparation of a solution of the hydrochlorides of apomorphine and strychnine for hypodermic purposes. Apomorphine is used as an emetic, but its administration is sometimes followed by considerable depression and even collapse. This objectionable effect is avoided by the addition of strychnine hydrochloride, the combination thus providing an emetic free from depressing effect. Since the employment of a fresh solution is essential the tabloid is very useful to that end.

GRAPE LIQUEUR BRANDY (SPANISH).

(WILLIAMS AND HUMBERT, 17, MINCING LANE, LONDON, E.C.)

We have frequently drawn the attention of the profession to the excellent brandy now being introduced into this country from Spain. Not the least important point about this brandy is that it is pure grape spirit duly matured in wood. It has been said that there can be no question as to whether Spanish brandy is the produce of the juice of the grape, for grape juice is the cheapest liquid in Spain next to water, and thus the failure of the grape crops in the celebrated environment of Cognac through the devastation of the phylloxera has been the opportunity of the wine-grower in Spain. Since the failure of the French vineyards suspicion has for a long time past been cast upon the consignments of brandy called "Cognac" coming into the country, and very naturally so. There can be no doubt, however, of the genuineness of Spanish brandy imported in case. It is a pure grape spirit uncontaminated with spirit from potatoes, maize, or other foreign materials. Hence Spanish brandy when duly matured may be confidently recommended for special medicinal purposes. The sample before us is an excellent type, possessing an aroma and bouquet resembling closely the fine liqueur champagne brandy imported from the Cognac district over 20 years ago. Our analysis gave the following results: absolute alcohol, by weight 42 29 per cent., by volume 49 81 per cent., equal to proof spirit 87 29 per cent.; acidity reckoned as acetic acid, 0 09 per cent.; extractives, 0 32 per cent., and ethers, 2 8 parts per 10,000. The last result recording the amount of ethers in the spirit is characteristic of a true grape brandy. The value of genuine brandy that is a pure wine distillate resides in its restorative and stimulating properties which are not possessed to anything like the same degree by etherless brandy, and the spirit derived from cereals is invariably free from ethers and certainly from the peculiar ethers of wine. We are glad to note that the above wine-shippers are introducing this excellent brandy direct in cases from Spain, a proceeding which guarantees it as a genuine product and which avoids any risk of it being tampered with in bottling. By this desirable arrangement the medical man may know for a certainty that the brandy he uses or recommends is genuine grape spirit, which is, moreover, not inferior as regards flavour and bouquet to the Cognac of the "seventies."

BEAMISH'S STOUT.

(GENDALL AND CO., 34, NORFOLK STREET, LONDON, W.C)

A plan has been adopted in regard to the bottling of this stout which may be commended. It is bottled by a special process whereby fermentation practically ceases by the time the malt liquor reaches the bottle. The result is a stout without any objectionable excess of carbonic acid gas. The taste is therefore mild and free from the sharp taste of highly carbonated liquors. On pouring out the stout into a tumbler it "creams" rather than effervesces. We understand that the specimens which we examined had been kept for more than 12 months—that is to say, the stout was bottled over a year ago. Our analysis was as follows: malt extractives, 5 36 per cent.; mineral matter, 0 28 per cent.; alcohol, by weight 4·94 per cent., by volume 6 17 per cent., equal to proof spirit 10·81 per cent. The stout was in good, sound condition.

MEAT POWDERS (BEEF, CHICKEN, AND TURTLE).

(H. J. DUNN, 110, BRIGHTON-ROAD, SOUTH CROYDON)

There should be a great future before these very interesting nutritive preparations. They present the entire qualities and properties of the respective meats from which they are prepared, the process of preservation being effected without altering the chemical or physical condition of the constituents mainly by drying the fresh meats in the cold. The result is a fine dry powder which may be used for preparing a juice containing albumin in the same condition as it occurs in raw fresh meat or the preparation of a really nourishing soup or "tea." The advantages thus gained are very obvious, and especially in the sick room. Thus the rapidly restoring effects of a raw meat juice may be obtained by simply infusing the powder in cold water and straining. On boiling the clear liquid a large part of its albuminous contents coagulates, just as in the case of boiling the white of an egg. We found that in this way the turtle powder yielded nearly 10 per cent. of coagulable albumin, the beef powder 6 per cent., and the chicken powder 7 2 per cent. Nor are the preparations deficient in the soluble and stimulating constituents of meat, these amounting to from 10 per cent. to over 15 per cent. The extraneous fat is carefully removed. We append our analyses of the three preparations. Beef powder: moisture, 7·48 per cent.; ash, 7·78 per cent.; proteids, 67·14 per cent.; and fat, 17 60 per cent. The cold water solution of this powder gave the blood spectrum which shows conclusively that the original condition of the meat is successfully preserved, the process in no way altering the condition of the nutritives, a condition so often essential in the feeding of the sick. Chicken powder: moisture, 7 61 per cent.; mineral matter, 7 37 per cent.; proteids, 77·42 per cent.; and fat, 6·60 per cent. This, like the beef powder, yielded a cold water solution of coagulable albumin, the clear fluid on boiling yielding a bulky albuminous coagulum. Turtle powder: moisture, 3 68 per cent.; ash mineral matter, 13 75 per cent.; proteids, 76·17 per cent.; and fat, 1·40 per cent. The turtle powder yielded nearly 10 per cent. of coagulable albumin, a result which largely explains the nutritive properties of this "fish, flesh, and fowl." The flavours both of the cold extracts and of the soups were preserved to a remarkable degree. We can speak very favourably of these preparations and no proof is needed that they are a great advance upon mere extracts of meat. They present all the nourishing constituents of the meats from which they were obtained and the flavour of the fresh meat is in no way sacrificed. Further, they offer a convenient and effectual means of preparing at a moment's notice either a nourishing raw meat juice or a nutritive soup or "tea." They should prove especially valuable in the sick room, where a juice or a soup may be immediately dispensed by this means—that is to say, raw or cooked meat can be administered, as the case may require. The powders would form also excellent adjuvants to other foods, raising their nutrient value to a powerful and certain degree. We have carefully considered the details of the process by which these meat powders are prepared, and the steps taken to retain the natural flavour of fresh raw meat and to preserve the nutrient strength of the original material unimpaired are as remarkable as they are ingenious.

New Inventions.

"DARK ROOM" FOR OPHTHALMOSCOPY AND LARYNGOSCOPY.

MR F. DAVIDSON of 140, Great Portland-street, W., manufactures a portable "dark room," which will in many cases be very serviceable in ophthalmoscopic and laryngoscopic examinations. In principle it somewhat resembles an ordinary photographic camera, having a bellows body, with the end carrying the lens removed. It consists essentially of two square mahogany frames having each a clear internal aperture of about 15 inches square. When in use these frames are vertical and are connected by the usual bellows arrangement; one of them is fixed to a wooden base and the other slides upon it so that the box or chamber formed by the bellows body may be adjusted to any length varying from eight inches to three feet. For retinoscopy it will usually be opened out to the full extent; for indirect examination a less elongation will be convenient. The surgeon looks in at one end and the patient at the other, a black curtain falling over the shoulders of each so that extraneous light is totally excluded. A lamp with a separate plano-convex condenser having universal motions is placed over the patient's head and in front of the surgeon there is a support on which the ophthalmoscope may be placed. The neutralising lenses for use in retinoscopy are set in a toothed wheel rather less than seven inches in diameter, which the surgeon can rotate with the utmost facility by means of a long brass rod inserted into the axis of a pinion. This wheel or dial carries 26 lenses, varying from + and – 0 5 to + and – 8. When opened for use the "dark room" is placed on a table, on which it stands quite firmly. Its special feature is its portability, for the bellows collapse, the base being hinged folds up against the ends, and the whole packs into a canvas cover so that it can be easily carried in one hand like a portmanteau. The price is 10 guineas complete, or eight guineas without the revolving dial carrying the lenses.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.—The report of the Medical Sickness and Accident Society states that during the year 1900 the number of members had increased to 2006, and the financial results of the year's working were very satisfactory. The funds increased by £11,379, almost the largest amount in any year's working, and, as no new annuity or life assurance business has been transacted by the society for some years, this shows the sickness business to be in a very healthy condition. The society is strictly confined to registered members of the medical profession, and is conducted on purely mutual principles. In 1900 £8250 were disbursed to the members as sickness benefit, being the largest amount ever paid away for this purpose in one year, but nevertheless, well under the expectation. The funds now amount to £143,553. Continuous sickness pay until the age of 65 is allowed in cases of permanent incapacity, and over a dozen of the members are under this arrangement drawing a permanent provision.

THE LANCET.

LONDON: SATURDAY, JUNE 1, 1901.

The Government and the Medical Profession.

As we briefly announced last week, Dr HENRY WARD IRVINE of Birmingham has been selected by the Education Department to be one of His Majesty's Inspectors of Schools The circumstances of this appointment presented features which made it inevitable that attention should be directed to it in Parliament, and the debate which accordingly arose was not directed either against the political probity of the Colonial Secretary or against the personal character of Dr. IRVINE At least such is our opinion, and certain it is that things far harder than any that were said last week in Parliament concerning Dr IRVINE'S appointment can now be said concerning the attitude of the Government on the matter. Dr. IRVINE accepted the appointment of medical officer to the Birmingham Consultative Institute at a time when the *medical profession* in Birmingham considered that the Institute was promising to give to the public professional facilities that it was not in a position to give The Institute advertised Dr IRVINE as its medical officer in a manner which was unprofessional. The matter was brought before the General Medical Council at the winter session of last year, and that body, while finding the charge proved against Dr. IRVINE of unprofessional conduct, treated him with all consideration, not removing him from the Register, but giving him a period of six months in which he could think over his position In the interval Dr. IRVINE, while presumably purging himself of unprofessional conduct, has been given a Government appointment, an appointment which he is no doubt well qualified to hold, but which as a matter of fact hardly ever is held by a medical man Mr McKENNA, M P., did well to bring the affair to the notice of the House of Commons, and whatever his motive for doing so may have been, it is absurd to say, as certain newspapers devoted to party politics have said, that only a malignant desire to damage Mr. CHAMBERLAIN could have been at the bottom of his action The importance of the questions involved forms an ample justification of any publicity that may be given to this subject.

Mr CHAMBERLAIN'S conduct was not in question, but as he took it upon himself to assume that it was, we may say that his interference in the matter did him little credit and reflected badly upon the Government whose attitude we suppose must be gathered from that of the Colonial Minister Mr. CHAMBERLAIN said that he had never heard of Dr. IRVINE even by name, but that he knew him to be a gentleman of great professional reputation—somewhat irreconcilable statements, made more difficult to dovetail by the fact that Mr. CHAMBERLAIN proceeded to give an account of Dr. IRVINE'S relations with the Birmingham Consultative Institute, with the medical profession of Birmingham, and with the General Medical Council, which though inaccurate was clearly inspired by some knowledge. In Mr. CHAMBERLAIN'S opinion Dr. IRVINE had only infringed the "trade-union rule" of the medical profession. He added that he was not responsible for the appointment which was made by the Lord President of the Council and the Vice-President The Vice President of the Council, Sir JOHN GORST, upon whom the responsibility of defending the appointment now devolved, said that Dr. IRVINE was chosen because *of his peculiar qualifications for the post* by himself and the President of the Council, the Duke of DEVONSHIRE, who had not heard of the charges of unprofessional conduct brought before the General Medical Council against the candidate for Government employment. While it was singular in Mr. CHAMBERLAIN to be able to give a sketch of the professional career of Dr IRVINE of whom he had never heard, it was careless or cynical of Sir JOHN GORST to plead ignorance of just those antecedents of Dr IRVINE which were actually contained in official information supplied to the Privy Council on the ground that neither the Duke of Devonshire nor himself had leisure to read the reports of the General Medical Council. The General Medical Council exists for the maintenance of proper relations between the medical profession and the public under the Privy Council. When the General Medical Council saw that it was a duty to the public to caution Dr. IRVINE as to his tenure of a certain post, all the proceedings were duly sent to the Privy Council; and if Dr. IRVINE had desired to appeal against the action of the General Medical Council it is to the Privy Council that his appeal would have been directed. Yet the Lord President of the Privy Council and the Vice President, while Dr IRVINE is under the ban of the General Medical Council, select him for a much-coveted Government appointment. This is to administer a public slap in the face to the disciplinary body of the medical profession while engaged in efforts to keep the roll of the profession pure and the standard of medical ethics high.

Our profession is not aggressively political, but it is one that cannot be neglected or flouted by politicians with impunity, for it deals with human interests and social and sanitary conditions that affect greatly the welfare of the nation. Moreover, it has the political influence belonging to men of general and special education, who have chiefly themselves to blame if this influence is not considerable. We do not pretend to say to which side the political bias of the medical profession leans, but it is safe to allege that it is largely conservative in its respect for good precedent, while it has that admixture of progressiveness which comes from contact with the revelations of ever-advancing science. If the medical profession is estranged from the Government in any degree more than it was when they re-entered into office—and we have reason to think that it is so estranged—they have only to thank themselves for the position. They have not acted up to the measure of their strength, as we have on previous occasions considered it right to point out On the vaccination question they yielded feebly, and they have since broken a promise to bring in legislation requiring revaccination. They lost the opportunity, offered by the Companies Bill, of altering the law so as to prevent any lay amalgamations from being used for covering unqualified practitioners in medicine. They dealt with the midwives question in a completely unsatisfactory manner. A valuable measure to amend the lunacy laws and a bill to improve the position of medical officers of health have both failed to get into the statute book through want of Government support, and a Medical Acts Amendment Bill has had to be withdrawn. This is not a good record. The Government have shown themselves to be out of touch with right medical feeling; and during the debate upon Dr. IRVINE'S appointment the two members of the Government who spoke emphasised their aloofness in a manner that must have been evident to all our readers. Mr. CHAMBERLAIN stigmatised the endeavours of the Birmingham medical men to maintain a high standard of professional conduct as trade unionism. Sir JOHN GORST said that the Lord President of the Council and the Vice-President had no leisure to read the reports of the proceedings of the General Medical Council. Mr. CHAMBERLAIN might take the trouble, before he again discusses medical ethics, to learn something of the aims and hopes of a self-respecting profession; and he must seek outside the Birmingham Consultative Institution for information. The Duke of DEVONSHIRE might vacate his office in favour of some one who could find time to discharge its duties. And we trust that Sir JOHN GORST, when next he looks among our ranks for an official to fill a place in the Education Department, will not feel compelled to select anyone in disfavour with the General Medical Council.

Influenza as a Factor of Recent Mortality in Chicago.

WE have on several occasions drawn attention to the most instructive bulletins issued from the Chicago Health Department. These publications are issued monthly and the amount of care and study involved in their production must be immense and reflects the greatest credit on the responsible persons, both writers and editors. In the number for March of this year is a leading article on "Influenza as a Factor of Recent Mortality." That the mortality from certain diseases, notably those affecting the respiratory system, rises greatly during an epidemic is a fully-recognised fact, but when we study the actual statistics we are made more fully aware of the ravages inflicted on the human race, directly or indirectly, by influenza. Writing in Professor CLIFFORD ALLBUTT'S "System of Medicine" in 1896 Dr. J. F. GOODHART says: "The permanent home of influenza, if one there be, is not yet absolutely certain. The west of Russia seems on the whole to be its most likely source. ......" It is perfectly true that in 1889 a great pandemic of influenza began, but since that time we are gradually becoming unpleasantly aware that influenza is not a chance visitor, but that it has become one of the most common diseases in this country, frequently assuming epidemic form, and having a marked effect on the mortality returns.

The article to which we have above referred commences with the remarkable statement: "Pneumonia has displaced the 'Great White Plague'—pulmonary consumption—as the principal cause of death in Chicago during the last ten years. In the previous half-century consumption had levied the heaviest toll on human life in this city, but in the decade 1891–1900 there were 9 per cent. more deaths from pneumonia than from consumption." The exact figures are then given, showing that between 1851 and 1890 inclusive, during which period deaths and their causes were recorded with increasing accuracy and fulness, there were 25,719 deaths from consumption and 16,577 from pneumonia; between 1891 and 1900 inclusive there were 22,957 deaths from consumption and 25,228 deaths from pneumonia—2271, or 9 per cent., excess of deaths from pneumonia. Taking a survey of other figures that are given the result shows the extraordinary increase of nearly 46 per cent. in proportion to population and of more than 50 per cent. in the actual number of deaths from pneumonia in the last over the previous decade. Doubtless other causes than influenza contributed towards this great increase. Death-rates of pneumonia increase considerably with advancing age, and some part of the accession in Chicago is unquestionably due to the increasing age of its population; but careful study of the statistics given in the "Bulletin" plainly shows that the augmentation of the pneumonia mortality in Chicago during the last decade is not due solely or chiefly to this cause. The baleful effects of influenza, however, are well shown in the following table:—

—	1889.	1890.	1891.
Total deaths all causes	16,946	21,856	27,754
Rates per 1,000 of population	18·11	19·87	23·92
Total deaths from pneumonia	1170	2073	2698
Rates per 10,000 of population... ...	12·5	18·8	25·0
Total deaths from consumption... ...	1489	1972	2120
Rates per 10,000 of population... ...	15·9	17·9	18·3
Total deaths from bronchitis	816	1189	1495
Rates per 10,000 of population... ...	8·7	10·8	12·9

The total deaths from all causes in 1891, the second "influenza year," are the highest number ever recorded in the history of the city up to date and are nearly one-third greater in proportion to population than in 1889. The consumption death-rate increased 15 per cent., the bronchitis rate one-half, and the pneumonia rate exactly doubled in the two years. Deaths from nephritis and from heart diseases also markedly increased, but not to the same extent as in the later years of the decade. The author of the article to which we are referring makes the interesting comment that the permanent increase of the mortality from consumption did not become marked until the fifth year of the influenza period. We agree with the explanation that is offered of this fact—namely, that pulmonary tuberculosis is a chronic and pneumonia an acute disease. Lesions of the mucous membrane of the nose, throat, and air-passages in the prevailing catarrhal bronchitis of influenza and of the air-cells in pneumonia rendered the soil suitable for the invasion of the tubercle bacillus, while the characteristic prostration of influenza and consequent impaired vital resistance favoured the development and activity of the bacilli which entered the system.

The article then refers to the bacteriology of influenza and rightly insists that its early recognition is the necessary first step to any restriction of its spread We cannot agree with the author, however, when he states that "the way to fight influenza is through the culture tube and the microscope" The high mortality that may ensue during an epidemic of the disease and the deplorable sequelæ that may never be completely recovered from are accepted facts, but too great a tendency has of late years been evinced to trust to bacteriological investigation rather than to clinical observation; the former is an immense aid to the latter, but must not be suffered to usurp its place The early diagnosis of influenza is of importance, and still more so is the adoption of means to prevent its spread In cases which present anomalous symptoms or run an unusual course the recognition of the pathogenic bacillus is of the utmost value, and we believe that for such purposes the laboratory facilities now so generally existing are not sufficiently made use of and many cases thus escape early detection, and the means of preventing the spread of the disease not being used infection of other persons is very likely When the disease, however, occurs in epidemic form the prevention of its rapid spread is most difficult, and it is only by insistence by practitioners on isolation that its diffusion can be stayed The quarantine period has not been definitely fixed and patients are apt to mix again with the world at large in pursuit of their ordinary avocations at too early a period and consequently again become centres of infection

◆

Administration in Irish Lunatic Asylums.

IN a leading article on April 13th last the *Sligo Independent* speaks in no uncertain tone as to its regret that the "high reputation of the Sligo Asylum should have been sullied by the brutal conduct of one of the attendants—a man named GAFFNEY—who savagely attacked a quiet and inoffensive patient and injured him most severely" The conduct of the Asylum Committee in dealing with this individual is almost incredible, and we feel it to be our duty to place the case somewhat circumstantially on record

An inspector of lunatics held an inquiry on oath, and from the official report as recorded in the *Sligo Independent* the facts of the case show that on April 2nd when the resident assistant medical officer was going his rounds he found the patient in question not walking about as was customary with him but sitting sobbing on a chair On being questioned the patient said that the attendant had beaten him, and the resulting injuries were found to comprise bruising of the left ear, bruising of the lower lip, the inner surface being cut by the edge of the teeth, a bruise of the right temple, bruising and tenderness over the left lower ribs and the lower part of the abdomen; severe bruising of the left thigh, the skin being removed; and a bruise on the right thigh Two patients corroborated the patient's statement and an attendant swore that he saw GAFFNEY hit and kick the patient GAFFNEY admitted having struck the patient, his only reason for the assault being that he was in the way when the ward was being cleaned up The report goes on to say that the offence was aggravated by the fact that the patient was a harmless, quiet, and most inoffensive man who, apart from his symptomatic restlessness, gave no trouble whatever The inspector gave it as his opinion that the services of the attendant ought to be dispensed with, on the ground that any person who would wilfully strike a patient, or had so little control over himself as to do so in a fit of temper, was utterly unsuited to be an attendant on that afflicted class of persons whose safety and well-being depend so much on the character and conduct of those who are placed in charge of them He further urged that if the committee were to condone such an offence, the asylum, instead of being, as it should be, a haven of refuge for the insane, would become a place to be feared and dreaded and the confidence of the public would be shaken in its management, while the ratepayers would become distrustful of the care and treatment which the inmates received In spite of the cogent utterances of the inspector the committee decided to retain the services of GAFFNEY One member gave it as his opinion that it was not a bad case, otherwise he would have dismissed him at once, and in any case, he thought that the retention of the attendant might be more effective than his dismissal would be

This decision appears to have been arrived at by the Leitrim members of the committee, all the Sligo members of the board having left to attend another meeting when the report on GAFFNEY'S misconduct came up for discussion The *Sligo Independent* refers to the probable great surprise of the Sligo members when the facts became known to them and it concludes its article in the following terms "We would not insult their humanity by even hinting that they would condone an offence against an afflicted and inoffensive man whose mental darkness made him the defenceless victim of an infuriated attendant" This out spoken condemnatory expression of feeling on the part of the local press cannot fail to find itself re echoed in the minds of all right-thinking, humane, and unbiased persons There must be some local or personal reason to account for this frustration of the well directed efforts of the inspector to maintain the reputation of the asylum But while the incident is one fortunately not of frequent occurrence, it is one from which a significant moral may be drawn in view of an agitation that has for a number of months been going on in official lunacy circles in Ireland having reference to the management and treatment of chronic cases of insanity A circular of the Local Government Board for Ireland with respect to the establishment of auxiliary asylums for harmless lunatics, idiots, and imbeciles led the Cork Asylum Committee to propose the utilisation of a disused workhouse at Youghal for this purpose, with such enlargements and adaptations as might be considered necessary and with such internal fittings and medical and other equipments as the circumstances of the case seemed to require, together with an increased cost of maintenance as compared with that expressly mentioned in the Local Government Act Any differences of opinion between the committee and the lunacy officials at Dublin Castle on these various matters would appear, from correspondence and statements in the *Cork Daily Herald* of Feb 11th and 23rd and in the *Freeman's Journal* of April 13th, to have been not absolutely insurmountable, or at all events not hopelessly impossible of authoritative decision one way or another. But when the Cork Asylum Committee decided that their auxiliary asylum for several hundreds of lunatics, idiots, and imbeciles was to be placed under lay resident superintendence we are not at all surprised to find that the lunacy authorities—the lunacy inspectors, in fact—recognised therein the invasion of a principle which they felt it to be their duty to uphold in the true interests of the insane—viz., that the immediate management and care, as well as the treatment, of any considerable number of mentally diseased and disordered beings in an asylum ought to be in the hands of a resident medical superintendent. Are we to take it that by a transference from Cork to Youghal or from a district asylum or workhouse to an auxiliary asylum these unfortunate members of the community leave behind them their brain lesions and their nerve lesions? Is it no longer the case that their bodily organs and functions, their passing humours, eccentricities, restlessnesses, demented helplessnesses, require that close supervision and individual attention which a resident medical officer is able to give, but which cannot possibly be expected to result from the daily visit of a non-resident physician, however experienced and careful? The latter might very properly see to the hospital sick, but who will ask him to make a daily inspection of all the inmates whereby alone he can have an opportunity of observing in their earliest stages new deviations and further progressions in conditions that had become more or less quiescent It is, for instance, a matter of doubt whether a merely visiting physician, who cannot be expected to know the habits and the characteristics of conduct of the bulk of asylum inmates, would have happened to detect during his visit the unusual condition of the patient to whose cruel treatment we have called attention. We do not wish to lay stress upon an individual case beyond pointing to it as an illustration of the needs as well as the risks that must attend the administration of an asylum containing only harmless patients, if ever we can bring our minds to regard idiots and imbeciles as generally belonging to this class. We are unable to do otherwise than to give our support to the lunacy authorities in Ireland in resisting the introduction of lay superintendence under the circumstances to which we have referred and we are not surprised that the inspectors would rather counsel the building of annexes to the district asylums where the immediate supervision of a responsible resident medical officer would not be denied to hapless lunatics under all the varying conditions to which their diseases render them liable and under the risks which in asylum life are associated with their restlessness and enfeeblement of mind.

We cannot conclude this article without reference to the opinions expressed by the Bishop of Ross, a member of the Cork Asylum Committee and the apostle of lay management in auxiliary asylums. In a letter to the *Cork Daily Herald* of Feb. 11th he admits that there is justification for the residence of medical officers in main or district asylums. He then goes on to speak as follows: "But what purpose will they serve among idiots and imbeciles? How they are to be employed surpasses common comprehension: the problem must be solved by the wisdom of the Lunacy Office. Will those highly skilled medical gentlemen be engaged in the vain task of infusing intellect into those whom God Almighty created idiots, or in the unsavoury task of looking after the beds of those poor creatures many of whom are of uncleanly habits? *It would seem to me that a few strong, vigorous women, neither squeamish nor over-refined, would be more necessary and efficient officers.*" The italics are ours, and we would ask whether this corollary of the "lay superintendent" idea is to be the trend of twentieth century science and humanity, and whether it is a system of treatment and administration that is likely to meet with the approval of the relatives and friends of the chronic insane or of the public generally.

Annotations.

"Ne quid nimis."

PROTRACTED GESTATION.

THE degree to which the duration of pregnancy can be prolonged has always been a matter of great interest. A very remarkable case of this kind is recorded by Mr. G. H. Hames in THE LANCET of May 25th, p. 1496, in which 320 days had elapsed from the last day of the last period to the day of the child's birth. Estimating the duration of pregnancy from the last day of the last period is always open to the fallacy that the patient may have become pregnant either immediately after the cessation of the last period or just before the period which failed to appear. If, however, we examine the data obtained from observations upon animals in which the date of a single coitus can be accurately determined we find very wide differences in the duration of gestation. Spencer and Tessier from observations upon 1303 cows found that the calves were dropped from the 253rd to the 321st day after coition—a difference of 68 days. Similar observations carried out by St Cyr upon mares showed a difference of as much as 87 days between the duration of the shortest and the longest pregnancy. In the case of the human subject statistics based upon a single coitus are always untrustworthy, but Dr. Nunnez-Ressié has recorded the case of a girl who gave birth to a child 317 days after she had been raped. Large numbers of cases of prolonged gestation have been recorded both by the old medical writers and in many of the modern works on jurisprudence. Joh. Johnston quotes Paschal as relating an instance of birth after a pregnancy of 23 months, Aventium one after two years, and Mercurialis one after four years' gestation! A case was decided in the Supreme Court of Friesland in 1634 in which a child born 333 days after the death of the husband was pronounced legitimate. As Gould tells us the Parliament of Paris was gallant enough to come to the rescue of a widow and save her reputation by declaring that a child born after a 14 months' gestation was legitimate. Campbell says that Simpson met with cases of pregnancy lasting 319, 332, and 336 days, while Meigs had seen one of 420. Jaffe describes an instance of the prolongation of pregnancy for 365 days in which, as in Mr. Hames's case, the weight and measurements of the child appeared to correspond to the degree of protraction. The civil code of France limits the longest period of the legitimacy of an infant to 300 days, the Scottish law to 300 days, and the Prussian law to 301 days. We may safely assume that the French law in fixing the limit of gestation at 300 days is well within the normal duration of pregnancy, and it is difficult to accept as authentic most of the recorded cases in which the gestation, reckoning from the last day of the last period, is said to have been prolonged much beyond this period of time. There can be little doubt that many of the older instances of very protracted gestation are to be explained by the retention of the fœtus in cases of extra-uterine gestation. A very interesting medico-legal point has been raised in some of these cases as to when the 300 days is to be counted from Is it to be reckoned from the exact hour of the marriage, from the hour of the death of the father, or the hour of the separation of the parents? or is it to be counted by legal periods of 24 hours In a case which came before it the Court of Angers decided that the duration of pregnancy should be reckoned from the moment of the death of the father. The Court of Cassation, however, upset this judgment and laid it down that the word "jour" signified a period of 24 hours, counting from midnight to midnight. In the particular case in question the father died on March 19th, 1866, at 2 A.M., and according to the Court of Cassation the period of 300 days commenced at midnight on the same day. The widow was confined on Jan 13th, 1867, at 8 A.M., and the 300th day, therefore, expired at midnight of the same day. Another interesting medico legal question which might arise is whether it would be possible for a woman to delay her delivery until the expiration of the limit of 300 days. In a case of this kind in which the wife wished to give her husband grounds for bringing an action against her the medical man is said by the administration of laudanum to have succeeded in delaying the birth of the child from the 298th to the 301st day.

PETROLEUM INCANDESCENT LIGHTING.

IT would seem almost idle to revert to oil as an illuminant when the great advances that have been made with both gas and electricity are considered, but recently a system of lighting by petroleum has been so successfully inaugurated in some of the London streets as to appear a reproach to existing gas lighting systems and the electric arc light The system that we allude to, which is very well illustrated in a recent installation along the whole length of Portland place, depends upon, first, the automatic vaporisation of petroleum oil, secondly, on the mixture of this oil with air, producing a flame like the Bunsen or atmospheric flame, free from a tendency to deposit soot, and, thirdly, on the impingement of this flame upon a specially made Welsbach mantle of the rare earthy oxides The light produced excels both the electric arc light and the incandescent gas light in its diffusive power, while its brilliancy may be almost without limit Its value for public street lighting is at once evident where installations have already been made and the contrast with gas and the electric arc is most favourable, while the cost is, as might be expected, much less so long as oil is as cheap as it now is. Moreover, a feature of the new system is—and we most heartily welcome this feature—that it dispenses with the "grubbing-up" of London streets The persistent tearing up of London streets is a serious matter, and an expensive matter, too, which may be placed as a very telling item to the account of both gas and electric lighting. With the new system of petroleum incandescent lighting, which is the invention of Mr. Arthur Kitson, M E, there is no necessity to dig down to mains in order to establish connexions Each lamp contains its own modicum of oil, the oil being contained in a strong metal cylinder under a slight pressure of air. The oil is forced into the cylinder by means of a force-pump and the air at the top in a similar way. The pressure of air simply serves to force the oil through an exceedingly small tube to the burner. The metallic tube is no thicker than the wire used for electric lighting, the thickness varying from one-sixteenth of an inch to a quarter of an inch. It is in reality a capillary tube. The tubes may be placed in a wooden moulding in the same way as are electric wires, and one cylinder or reservoir will furnish oil through these tubes for any number of lamps. The trouble of keeping the reservoirs charged and the lamps in going order is no more than that encountered by the postman in clearing letter-boxes. In some cases the renewal of oil or air may be needed daily, but in others only weekly. The oil is forced up to the burner where it is vaporised automatically. At the same time air is mixed with the oil by injection, producing a powerful atmospheric flame. It is said that the Kitson lamp gives more light than the so called 2000 candle-power electric arc lamp and is more reliable at less than half the cost The ordinary street lamps give 1000 actual candle power, but lamps are made which give a light from 50 candle power upwards. We are not aware that it is proposed to apply the system to domestic lighting, in which case it would be especially important to ascertain whether the system is satisfactory from a hygienic point of view. We are not informed as to whether the combustion of the oil is perfect or whether the lamp is free from smell. But a system which can light the City of London for less money than is now paid annually for tearing up the streets and repairing the mains, and which, moreover, gives a light of very high standard of diffusive power, is calculated to bid all lighting authorities to pause before increasing the undoubted nuisance and expense of a chronic upheaving of pavements and roadways. We understand that the light is very penetrating during fog and on this score far excels other systems Some interesting experiments with the most surprising results are being tried in lighthouses The system is, of course, in its infancy, and we have yet to learn how far it can guarantee success in the long run. But that it opens up many interesting possibilities in regard to public lighting is certain. Its application in the country should prove a very great advantage. We have been very much impressed with the installations which we have seen in London, notably in Portland-place and in the Marylebone-road opposite the Great Central Hotel. It would be odd if it should prove that this system of oil lighting should supersede existing systems of electric and gas lighting or even acetylene gas. However, it is often the case that one line of promised advancement, as, for example, electricity, becomes so fascinating that the possibilities of older systems are left unstudied and undeveloped. And there can be no older system of lighting than by means of oil.

MEDICAL ADVICE IN LAY NEWSPAPERS.

THE reasoning powers of the man or woman who is able to pay a medical man's fee and yet prefers to get advice through the columns of a penny newspaper must be curiously small or unexercised. Nothing else except motives of an unwise economy, a penny-wise pound foolish method, can explain the prevalent custom of asking advice by writing the description of an illness to a man who has never seen the case and most likely never one like it. As far as the question of expense goes anyone can understand the temptation for a poor man to get for a penny advice couched in apparently the same terms as those in which a medical man would proffer it to him. Yet medical men are notably charitable, and, even apart from their charity, other considerations unfortunately reduce medical fees in many neighbourhoods to a very low figure, so that it must always be possible for the sufferer, however slender his means, to get advice from a qualified medical practitioner If even the smallest fee is beyond his reach then the patient has hospitals to fall back upon. Yet in many instances he prefers to write a description of the case to the "medical" columns of a newspaper and to receive the instructions of its adviser. The chance of such advice being good must obviously be extremely slender. To begin with, the kind of man who is willing to give advice in this way upon cases which he has never seen is not likely to possess a high degree of education. Moreover, if he were the best instructed and ablest of medical practitioners his chance of making a correct diagnosis would be smaller than those of an inferior man who had actually seen the case in question. This is an argument which might be expected to prevail upon even the lowest intelligence. Most people would hesitate to send the purchase-money for an article without seeing the article first. Yet they are willing to pay someone, of whose name and position they are ignorant, to say what is the matter with them and how they are to be cured, when the patient and his adviser have had no closer communication than that which the post affords. It is another instance, presumably, of the truth demonstrated over and over again by the success of quacks and patent "cures," that where matters of health are concerned the human being is ready to believe anything he is told. Apparently the one exception to his credulity is that he does not readily believe that men who make the study of disease the main object of their lives are more likely to treat it with success than a confident quack or an ignorant compiler of prescriptions for a lay newspaper. We do not, of course, suppose that there are many people of position in the class that supports newspaper medical advice, but with the boasted educational progress of the day this class should be much smaller than it is. Our attention has been once more directed to the matter by the indignant letter of a correspondent, himself a layman, who inclosed the medical portion of a recent issue of the *Family Herald*. Our correspondent believes that the livelihood of the general practitioner is seriously menaced by the custom of which we have been speaking. Though we deplore the practice as much as he does we do not believe that it does much harm to the medical profession, but rather that the patients themselves are in the long run the chief sufferers, having probably to correct their newspaper "medical advice" by a subsequent acquisition of the genuine article.

THE IMPORTANCE OF ASEPTIC VACCINATION.

DR. WILHELM KARL KUBIN of New York has lately read a paper before the Medical Society of the County of New York on the Importance of Aseptic Vaccination, with Remarks on Vaccination in General. The paper is published in the *Medical Record* of New York of April 6th and is well worth the study of all practitioners. So many practitioners pass through life without *seeing any serious* result from vaccination that they are apt to think it unnecessary to apply to the operation those precautions of hygiene and asepticism which they insist on in every other surgical procedure. So true is this that in an experience of 50 years or more of the medical officers of the London Small-pox Hospital they did not see from vaccinations or revaccinations further inconvenience than soreness of the arms in some cases. It is to reduce this soreness and other more serious consequences that all good practitioners feel it to be their duty in vaccinating to take pains not to insert anything but pure lymph and to watch any case carefully for a week or two subsequently to vaccination. It is scarcely necessary to say that Dr. Kubin gives the most striking proofs of the efficacy of vaccination and revaccination in protecting from small-pox. We need only instance one fact quoted by him—that in the Franco-German war, in which both armies were fully exposed to small-pox, the German mortality was only 263 men, while the French loss was 23,468, though the French army was at no time more than half the size of the German army, the difference being due to the thoroughness with which vaccination is carried out in Germany. He agrees with Dr. Brouardel in thinking that a community in which every individual has been vaccinated and revaccinated is absolutely protected from an epidemic of small-pox. But the object of Dr. Kubin's paper is to enforce the fact that vaccine lymph, even calf lymph, is by nature septic and contains numerous forms of germ life which, however harmless in most instances, are pathogenic under certain circumstances, to say nothing of manifestly pathogenic germs which may be present exceptionally. He accepts the conclusions of Koch, Copeman, Blaxall, and others that the number of such germs decreases on the addition of glycerine, even to the destruction of streptococcus, the diphtheria bacillus, and the bacilli of tubercle and erysipelas. He insists that unless due precautions are taken untoward results will occasionally follow vaccination and so keep up that absurd prejudice against it which is nowhere more discreditable than in the land of Jenner. He enumerates the principal causes of untoward results incidental to vaccination as follows: (1) impure virus; (2) abnormal or paradoxical course of the cow-pox itself; (3) improper performance of the act of vaccination, as by (*a*) unclean instruments and hands of the operator, (*b*) improperly prepared surface for vaccination, and (*c*) imperfect dressing, which will allow secondary infection; (4) neglect on the part of the vaccinator to exercise supervision and control of the patient until the time of complete healing; and (5) coincident diseases, such as scarlet fever, measles, and the like. His illustration of the possibility of all these accidents is ample and is taken from all sources—from the reports of friends, from literature, and from his own experience. Dr. Kubin prepares the skin and his instruments as carefully for vaccination as any Listerian surgeon would for a major operation. He scarifies so as to have very little bleeding and then rubs in the matter with a spatula—all, of course, being aseptic—and immediately applies his aseptic shield of which he gives the following description. "My shield consists of eight layers of gauze, each three and a quarter inches long and three and a quarter inches in width, having inclosed in the centre a wire net two inches long and one and a half inches wide with a height of one-half inch. Five aseptic strips, each one six inches long and one-half inch wide, accompany every shield, four of the strips to be used in the primary adjustment of the shield and one for reserve to be used when inspection is made. This all reaches the physician in an aseptic condition. Under this device the scab will remain undisturbed by friction of clothing and healing may go on to completion under a single shield. The shield is secured with strips of adhesive plaster. On the first inspection, should the shield be found soiled by discharge, which happens occasionally, a new shield must be substituted." In conclusion Dr. Kubin recommends that a national law should be passed in the United States for enforcing vaccination and revaccination such as exists in Germany.

THE ANNUAL TAX OF THE ONTARIO MEDICAL COUNCIL.

OUR Canadian Correspondent writes:—After the practitioner has *secured by examination* a licence to practise medicine and surgery in the province of Ontario at a cost of $100 the Medical Council, the governing body of the College of Physicians and Surgeons, demand and exact from him an annual fee of $2.00. There are about 2500 practitioners, in this province and some 700 of them have become debtors to the Medical Council to the extent of several years' assessments. In order to make these delinquents pay up the official prosecutor of the Council on April 19th addressed to each of them a circular letter informing them that their names had been erased from the Register of the College of Physicians and Surgeons and that unless they settled with the registrar within 30 days from the date of the letter they would be proceeded against like all other unregistered practitioners, thus practically putting them down in the same category as quacks. About 100 of the 700 immediately paid their assessments along with the arrears, but the remainder sent representatives to the number of nine to wait upon the Provincial Government to protest against the imposition of this annual tax. The delegation was headed by Dr. Sangster of Port Perry who is himself a member of the Medical Council and who some 10 years ago was the leading spirit in a similar onslaught upon this tax which caused no little bitter feeling in the profession at that time. The opponents of the tax claim that they receive no benefit for it at all, that the Medical Council, which is composed of 30 members, are dominated by the college men and the homœopathic body, who have a representation of 13 between them; and that the regular profession is not properly represented on the council. Should the Medical Council persist in their claim and attempt to carry out their threat no doubt times will be warm in the medical profession in this province during the coming summer months in other than a literal sense. On the other hand, the *mandamus* having been issued, those who have responded will expect the Council to go on and to prosecute. There is every likelihood of a test case being submitted to the courts for decision as to the legality of the obnoxious tax.

"SWEETS SPARKLING WITH GLASS."

WE never doubted that the revelations which we published in regard to the presence of glass in certain sweets would be received with incredulity. Further than that, our analyses have been "challenged." Couched in more temperate and courteous terms than characterised some remarks in the general press upon the subject was an article appearing in *Confectionery* of May 13th, 1901, a journal devoted to "the interests of sugar confectioners, chocolate manufacturers, and fruit preservers." In this article our annotation is reproduced in full The editorial opinion is expressed that it is a case in which, in the interests of the trade, the Confectioners' Association should take action With this we cordially agree We have reason to believe that sweets containing glass are still circulating and we therefore repeat our recommendation that the local authorities throughout the country should institute practical inquiries under the Food and Drugs Act and should prevent the sale of such dangerous articles We can afford to disregard any impugnment of our analysis. No particular skill is required to detect glass in sweets, but it is desirable that examination should be set on foot before the presence of glass is indicated by serious mischief done to the human body. We have not been able to trace the makers of the sweets in question, but we may state that the specimens were sent to us by Dr. Horace Savory of Bedford whose attention was drawn to the sweets as the possible cause of severe abdominal pain in two little children under his care. There is no doubt that the sweets were the origin of the serious symptoms and that the sweets contained sharp splinters of glass. The splinters, moreover, were not buried in the body of the sweet but inlaid on the surface. From information which we have gained, we are inclined to the view that the presence of the glass was due to inadvertence. But what a dangerous inadvertence. Probably the glass was substituted for a harmless sparkling material, having got into the sweets much in the same way that arsenic got into beer. We are aware that sparkling glass is sold wholesale for certain purposes and doubtless this was inadvertently used in the sweets which we examined. The sale of such sweets would imperil the health of the purchaser, but there is no reason for believing that there was fraudulent intention. As we have said, it is possible that a great number of these sweets thus unintentionally (as we think) sprinkled with glass are yet exposed for sale. We have pointed out the danger, and it is for the local authorities to trace it to its source and to stamp it out.

PLAGUE IN CAPE COLONY.

A TELEGRAM received at the Colonial Office on May 23rd gives the following statistics of plague at Cape Town for the week ending May 18th Fresh cases: Europeans, 9; coloured persons, 6; Malays, 2; East Indians, 2; Chinese, 0; natives, 2; total for the week, 21. Corpses found: coloured persons, 3; Malays, 3; East Indians, 1; natives, 1; total, 8. Deaths (including corpses found): Europeans, 2; coloured persons, 9; Malays, 4; East Indians, 1; Chinese, 1; natives, 1; total 17 (*sic*). The total cases and deaths up to May 18th are as follows: Europeans, 164 cases and 52 deaths; other nationalities (Asiatics and African natives), 475 cases and 240 deaths. Total up to May 18th 639 cases and 292 deaths. A private in the Field Artillery, Gibraltar lines, Green Point, has developed plague, bringing up to 46 the total cases among persons under naval and military control. A private in the Army Ordnance Corps died from plague at Port Elizabeth on May 20th. A European in charge of a coffee-stall at Green Point camp has developed plague. Two privates in the 1st Battalion Loyal North Lancashire Regiment at Mafeking have now been officially pronounced to have plague; these men with 20 others arrived at Mafeking from Cape Town on April 19th. The area of infection remains unaltered.

MIND-WANDERING.

IN his presidential address to the Neurological Society Dr. W. Julius Mickle[1] dealt with the subject of mental wandering—a condition which he defined as allied to certain dream-states and delirious or sub-delirious processes. This condition lent itself to both subjective and objective study and observation, and its study threw light on certain nervous and mental states occurring in the borderland between the normal and the abnormal. The patient selected for special study in the present instance was a medical man who, as the result of typhoid fever, developed an abnormal mental condition. The first slight deviation from health occurred on the fifteenth night after exposure to infection, sleep being light and disturbed. The next morning a light "swimming" sensation was felt in the head. In spite of this he continued with his usual work with the result that his malaise and weakness increased, he looked grey and tallowy, had a febrile temperature, and had to take to bed. On the fifth day there were high temperature, headache, mental confusion, and incipient delirium. In comparison with the fever the degree of toxæmia, as measured by prostration, perspiration, insomnia, and delirium, was disproportionately severe. In the confusion and swirl of ideas which characterised this stage the mind was like the "dove from the ark unable to find a resting-place," and seemed in danger of sinking in the "trackless waste of delirium." The wavering Ego was even now partially and fluctuatingly confusing the self with others and with the surroundings. "In confusion and seething turmoil," says Dr. Mickle, "the Ego-group inclined to break up into constituent parts, to confound some of these with, or attach them to, other persons, or to group the constituents afresh." This partial dissociation of the Ego is the result of the action of morbid processes on the "association-centres" of the brain and may be brought about by toxæmia, fever, inanition, and cerebral exhaustion by insomnia or over-exertion. The patient would at times confuse himself with his interlocutor, or he would feel as if he was partially changed into another —or into several others—a condition analogous to certain dream-states—and occasionally the original self would be re integrated and would recall itself with some degree of lucidity. "At one time the delirant seemed to be mainly substituted by three persons of different ages, all suffering like him from typhoid fever." At this point of time the patient had refused to take beef-tea on purely medical grounds which he expressed and of which he could afterwards retain some recollection. When, however, he was expostulated with by his nurse and the reason of his refusal demanded his final reply, after some colloquy, would be, "I'm sure it is not good for them"—for *them*, be it noted. So that he was now, for the time being, assisting in the treatment of his changed and alienated self. During another stage of the illness there appeared a change of the self of another sort, a reduction towards the mental status and disposition of childhood. Dr. Mickle proceeds to point out the delicate complexity and heterogeneity of the Ego. Even in health we discover on careful scrutiny and analysis that manifold and multitudinous elements constitute the Ego, and many of these are loosely united, transient, and readily replaced by others. A process of decay and of renewal, of loss and of acquisition, is continually going on. In the present case certain sensory troubles also supervened, such as paræsthesia of the mouth and teeth, a feeling of general "pulpiness" of the body, and perverted sensibilities of sight. Illusions of sight—e g., landscapes and shipping, panoramic views of plants, paths, and cows—also appeared and vanished in association with some degree of vertiginous feeling. Dr. Mickle seeks to correlate some of these phenomena with rhythmic vaso-motor disturbances in the brain. Temporary bronchitis and treatment of it with inhalations formed the starting point of delusions as to being alternately anæsthetised and suffocated and to vigorous expostulation and denunciation by the patient. He also had phantasmagorial illusions of riding in a coach while actually seated in a chair, of watching a gigantic stringed instrument which he thought was allegorical of human lives, and at one moment even imagined he was a general paralytic. He slowly improved and in the course of about five months was on the high road to recovery.

---

[1] Brain, Spring, 1901.

A NEW EXPONENT OF "EDDYISM."

THE Earl of Dunmore has contributed three articles to a daily newspaper, in order that "Christian Science," of which he is apparently an enthusiastic devotee, may be brought home to the multitudinous readers of the halfpenny press. His lordship's summary of the religious doctrines of Mrs. Eddy has little concern for medical readers, save to reveal what they know already—viz , the incomparable credulity of that lady's followers. We learn that she was once a "gentle, pious, unassuming Christian woman," and that now she stands out "far in advance of the common frontage of human mentality"—a very gratifying position for an unassuming woman to occupy; and we are also informed that "(1) there is one Mind (God) and that Mind governs all; (2) that man being God's spiritual Idea is the reflection of this Divine Father." The unravelling and discussing of cryptic phrases such as these we must leave to others, especially recommending the matter to the attention of that large public which enters into journalistic competition of acrostic-guessing. But when we come to an assertion the meaning of which is conveyed by the phraseology we feel bold to make a remark or two. "It was authoritatively stated," says Lord Dunmore, "at the World's Congress of Religions, as long ago as 1894, that more than 1,000,000 cases of disease had been healed by Christian Science up to that date, and that many of these cases had been previously pronounced incurable by the doctors." We should like to know who, in Lord Dunmore's opinion, could be in a position to make such a statement "authoritatively"; and we should like to meet a few of "the doctors" who had given up as incurable the cases which quacks claim to have cured. The public ought to hear what actually was the nature of the alleged disease and the evidence of medical men as to the genuine cure of the condition by Christian Scientists. In particular, we ought to have the names of these "doctors." Unassuming Mrs. Eddy's name is blazoned forth in print, why should not the names of the medical men be also published? Beyond assertions of the kind quoted we have no doubt that Lord Dunmore has given a compendious summary of Mrs. Eddy's teaching, but it is our regret that when we begin to understand what he is driving at we commence at the same time to see that, judged by ordinary canons of reason and experience, this distinguished traveller and excellent nobleman is talking sheer nonsense. Perhaps we ought not to judge by ordinary canons such a sentence as this, which, we believe, sums up the Eddy position with relation to disease: "Metaphysical treatment through the power of Divine Truth is able to heal mortal mind of the illusion of sickness; and when the mind is relieved of its illusion there is no sickness left to disappear." Our "mortal mind" only enables us faintly to picture a cholera microbe or a bacillus of tuberculous tendencies taking a defensive and wholly unsympathetic attitude under metaphysical treatment and refusing to disappear from possibly congenial surroundings. We might even anticipate that the illusion of death might follow the illusion of sickness with unusual frequency among Lord Dunmore's friends, had we full confidence in the zeal of the convert when confronted with martyrdom, and had we not some faith in the sense of Englishmen and Englishwomen prevailing in the long run. When the Christian Scientist is seriously ill, the Christian Scientist's relatives, whether of the cult themselves or not, feel themselves loaded with a somewhat serious responsibility. This responsibility they usually proceed to transfer to a medical man, though possibly not until delay has considerably increased the difficulties of treatment.

INFANT MORTALITY AND THE OCCUPATION OF MARRIED WOMEN.

IT is frequently asserted that the high death rate of infants in large towns is in great part due to general neglect and also to want of breast milk in consequence of the mothers having employment as factory workers and therefore being away from home all day. In a recently published pamphlet,[1] however, Mrs. Florence J. Greenwood, sanitary inspector, Sheffield, shows that a good deal may be said on the other side and that the connexion between infantile mortality and the employment of married women as factory workers is by no means so immediate as has been often assumed. For instance, it is generally agreed that the employment of married women in factory towns is either diminishing or, at least, not increasing, but the infantile death-rate, nevertheless, tends decidedly to rise. The Registrar-General's report for 1899 shows that in 27 out of the 33 great towns it has increased during the past 10 years, and in six towns where it has decreased the reduction is not great, whilst in Burnley, a typical manufacturing town, during 1899 there were 269 deaths under one year of age per 1000 births, or an excess of 61 per 1000 over the average of the preceding 10 years. Again, a similar inference is to be drawn from the statistics of Chesterfield, a town of about 25,000 people, situated in the centre of a mining district in

---

[1] John Bale, Sons, and Danielsson, 83-89, Great Titchfield-street, W.

Derbyshire, where there is little or no employment for married women. In 1898 the infantile death-rate for England and Wales was 161 per 1000 births; in Sheffield, with a population of over 360,000 and a small population of married women employed as trade workers, it was 195 per 1000; in Chesterfield, a country town, it was 228 per 1000. Mrs. Greenwood supports the view that these high infant mortalities are due principally to improper feeding, insufficient clothing, and general domestic mismanagement. She believes that more good can be done by house-to-house visitation and advising parents than by any legislation tending to prevent women from working in factories.

ABDOMINAL PAIN IN TYPHOID FEVER.

THOUGH abdominal tenderness is one of the recognised symptoms of typhoid fever the question of spontaneous abdominal pain apart from complications is little considered in the text books The introduction of the operative treatment of perforation has rendered this question important, for pain is the most constant symptom of perforation. Professor Osler, in a valuable paper on the study of the symptoms of perforation with view to early operation,[1] points out that severe abdominal pain in typhoid fever may be associated with pleurisy, cholecystitis, a distended bladder, or a loaded rectum, or may follow the administration of an enema. In the *New York Medical Journal* of May 4th Mr. Thomas McCrae, assistant resident physician of the Johns Hopkins Hospital, has published an important paper on abdominal pain in typhoid fever based on observations made in Professor Osler's clinic. Typhoid fever is becoming more and more a disease which is treated in hospitals. The recognition and estimation of serious abdominal symptoms must often depend on the resident medical officer. The question of the cause of pain may confront him suddenly and other symptoms may be contradictory or deceptive The diagnosis of perforation may be most difficult, but decision is imperative for early operation is all-important Mr. McCrae has made a careful study of the symptom of abdominal pain in a series of 500 cases of typhoid fever. In 206, or 41 per cent., there was neither pain nor tenderness; in 72, or 14 per cent, there was tenderness without pain; and in 222, or 61 per cent., pain was present at some period. Out of these last cases pain was present only at the onset in 61, which leaves 161, or 32 per cent. in which pain was present during the course of the disease In the first group (in which there was no pain or tenderness) it is of interest that conditions which sometimes cause pain—tympanites, diarrhœa, and hæmorrhage—were found. These cases were mild as a rule; eight were fatal. Pain present at the onset of typhoid fever may lead to erroneous diagnosis: in cases associated with diarrhœa in which high fever is absent enteritis may be diagnosed; if the abdominal symptoms are more severe and there are localised tenderness, rigidity, &c., appendicitis or peritonitis may be diagnosed. In four cases this error was made. Abdominal pain during the course of the disease may be due to: 1. Conditions apart from any special lesions of the disease—hysteria, pleurisy, pneumonia, distended bladder, labour, and menstruation In the series pain was due to hysteria in four cases, to pleurisy in two, to pneumonia in one, to distended bladder in four, and to menstruation in one. 2 The pain may be due to disturbances of the gastro-intestinal tract apart from complications. In two cases the pain was due to the taking of solid food which was smuggled into the hospital by friends, in three it was associated with severe and protracted vomiting, in 10 it was apparently due to constipation (fæcal impaction in three), in two it was associated with the administration of an enema, and in 16 it was associated with diarrhœa. 3. The pain may be due to abdominal conditions apart from the specific intestinal lesions. In two cases it was due to appendicitis (apparently not typhoid). In one case it was due to peritonitis; the patient had recently undergone operation for pyosalpinx. In three intestinal obstruction—after operation for perforation in two and for hepatic abscess in one—was the cause. In four cholecystitis and in one hepatic abscess was the cause. In 10 the pain was associated with a tender spleen. In four phlebitis of the iliac vein was the cause of severe abdominal pain. 4. The pain was associated with hæmorrhage in 14 out of a total of 36 cases of this complication In some cases it came on in paroxysms, in others it was more continuous. 5 Pain from perforation occurred in 13 cases; in all it was severe. These cases may be divided into two groups—those with sudden onset, of which there were 10, and those in which pain preceded the perforation for some days. In four the pain was accompanied by vomiting. In three the pain at the onset was referred to the penis. This sudden onset of pain is very suggestive of perforation. The nurses should be instructed to send immediately for the medical officer when it occurs. It is important to see the patient at once, for the severity of the pain may pass off in a few minutes and the patient be comparatively comfortable. The most careful examination should be made, noting every symptom as advised by Professor Osler.[2] An endeavour should be made to exclude all other possible causes of pain. The pain did not remain constantly severe in any instance but was paroxysmal, the patient in the intervals being almost free from pain Should the patient be then seen—for example, by a consultant—a very different picture may be presented to that found a short time previously In such cases, perhaps, a couple of hours should be spent in frequent observation of the case. Only thus may it be possible to estimate the character of the pain. In one case recurring paroxysms of severe pain with increased respiratory rate were the only symptoms of perforation during eight hours; then tenderness and rigidity suddenly supervened. Next to cases of perforation in which there is no pain those in which there was no sudden onset and possibly no increase of the pain previously present are the most difficult to recognise There were three such cases in which pain was present for five, nine, and 10 days before operation respectively. In one a sudden severe exacerbation suggested perforation, in the second vomiting suggested the general peritonitis which was found on operation, and in the third the perforation was not recognised. 6 Pain without discoverable cause was present in 70 cases—a surprisingly large number. It was usually not severe and was of short duration. The majority of these cases showed no special features, but one group was important because perforation was simulated; leucocytosis and abdominal symptoms—tenderness, rigidity, &c.—were present. Possibly some undiscovered inflammatory complication was the cause of these symptoms. Leucocytosis in typhoid perforation has recently been discussed in an annotation which may be read in connexion with the present one[3]

HONOURS TO EDOARDO PORRO.

AN Italian contributor, under date Milan, May 24th, writes:—"The Senator, Dr. Edoardo Porro, professor of gynæcology in the Regia Scuola Ostetricia of Milan, has just received gratifying testimony of the admiration and affection entertained towards him by his colleagues and fellow-workers in his own branch of the profession. Twenty-five years have elapsed since he devised and performed the operation to which he had given his name, but his clinical and consultant activity during the interval has been scarcely less salutary to the lay world and honourable to the medical cause. Interpreting a sentiment not confined to his native Lombardy but universal throughout the Italian kingdom, a strong committee, of which his colleagues Dr. Mangiagalli and Dr. Decio were the leaders, raised funds by subscription for a massive gold medal to be struck in his honour, the artistic elaboration of which was entrusted to the well-known masters in that *métier*, Signor Cappuccio, Signor Boninsegna, and Signor Johnson of Milan. The result is in all respects worthy of Edoardo Porro. On the obverse a three-quarters profile in strong relief renders vividly and happily the characteristic North-Italian head, with the masculine yet refined features aglow with intelligence, decision, urbanity, and benevolence. Encircling the head, in capital letters, are his name and place of origin: EDVARDUS PORRUS MEDIOLANSIS. On the reverse, reposing on a floral wreath, up which the Serpent of Epidaurus has worked its way, rests an oblong tablet inscribed as follows: SECTIO CAESAREA . SALUBRIOR INSTITUTA . AN . MDCCCLXXVI . COLLEGÆ ET AUDITORES AN . MDCCCCI. On the same day the illustrious gynæcologist was presented with another testimonial, equally significant, an address inscribed on a 'targa artistica' (artistic shield) and signed by office bearers of the Società Italiana delle Levatrici (Society of Italian Midwives), of which he is president. No one was less prepared for this touching demonstration than Professor Porro himself, and the scene was one never to be forgotten by those who waited on him at his residence, when amid words of reciprocal affection and gratitude the testimonials, as a κτῆμα εἰς ἀεί, passed to their worthy destination."

---

[1] THE LANCET, Feb 9th, 1901, p. 316.

[2] Loc. cit

[3] THE LANCET, May 18th, 1901, p. 1417

UNCERTIFIED DEATHS IN THE HEBRIDES.

WHEN the time comes round for procuring any adequate attention to the treatment of the sick poor in remote districts, the claim of such persons in the Hebrides for early consideration will be very strong. The tenth annual report of Dr. Ogilvie Grant, medical officer of health of the county of Inverness, is one of great interest. It gives much information of the difficulties in the way of a health officer who has to make journeys to the remote islands in the west, more difficult to accomplish and requiring more time than journeys to Paris or Berlin. It contains tables for the past 10 years of deaths and death-rates, of longevity, of density of population, of infantile mortality, of causes of death, of uncertified deaths, of births and birth-rates, of old age, of meteorology, and of notified diseases. Dr. Grant dwells with much satisfaction on the increased efforts to grapple in all its forms with tuberculosis which has been a deadly disease in these districts in Scotland. But he dwells with very opposite feelings and with much reiteration on the fact that in the country an enormous number of persons still die without any medical assistance. In the last year under the head of "uncertified' deaths" he says that it is deplorable that in the county of Inverness nearly 400 persons died and were buried without any knowledge about, or investigation of, the cause of death, as far as the medical profession was concerned. Thus, of 80 deaths registered in the parish of Duirinish 51 were uncertified, of 47 deaths in Kilmuir 33 were uncertified. In the parish of Portree, of 55 deaths registered 27 were uncertified. In the parish of Sleat, of 27 deaths registered only four were certified. In Harris, of 111 deaths registered 57 were uncertified. In North Uist, of 85 deaths registered 26 were uncertified, and in South Uist of 85 deaths registered 57 were uncertified. Taking a period of 10 years into view in the Island of Skye alone there were no less than 1426 uncertified deaths, and in South Uist district there were 770 During the same period in 10 years in this single county "nearly 4000 persons have gone to their graves unalleviated by medical care." We shall not moralise on so pitiful a fact but commend it to the Local Government Board for Scotland The medical profession cannot be blamed for it. Nor can the medical journals. The General Medical Council, too, has urged the matter in various ways on the attention of the Government. Even the war does not excuse the Government for such indifference as is displayed in allowing the continuance of such a scandal as 4000 deaths in one county in 10 years with no provision for medical attendance. In many of these cases, doubtless, life itself would have been saved by proper medical supervision and in most of them unspeakable suffering would have been averted or reduced to a minimum. A remarkable instance of an isolated population deprived of medical aid is reported from the three islands of Arran, situated off the west coast of Ireland, 30 miles from Galway. Communication with the mainland is limited to a steamer from Galway three times a week, if the weather permits, and an occasional small sailing vessel. Typhus fever is of not infrequent occurrence in the island and Mr. T. Kean, the dispensary medical officer, fell a victim. During his illness, which unfortunately proved fatal, he is said to have been without medical attendance for a week and the Galway Board of Guardians, as the local authority, is much blamed for permitting this deplorable state of matters.

THE PATHOLOGICAL SOCIETY OF LONDON

THE council of the Pathological Society of London having proposed certain alterations in the mode of conducting the business of the society, these proposals were submitted to the annual meeting held on May 21st and were adopted. The work of the society will now be carried on in four sections, and certain vice-presidents have been elected to act as chairmen in these sections, and secretaries have likewise been elected who will each arrange the proceedings of his own section, and members of the council have also been deputed to act as committees of the several sections. Section A will be concerned with Pathological Anatomy and Histology: its chairman will be Dr. J. F. Payne, and the secretary will be Dr. H. Morley Fletcher; the committee will consist of Dr. J. Galloway, Dr. C. D. Green, Dr. H. D. Rolleston, Dr. N. Dalton, Dr. G. F. Still, Mr. T. W. P. Lawrence, and Mr. D'Arcy Power. Section B will deal with Bacteriology. the chairman will be Dr. E Klein, F R S, and the secretary Mr. A. G. R. Foulerton; whilst the committee will include Dr. F. W. Andrewes, Dr. W. Bulloch, Dr. Allan Macfadyen, Professor John McFadyean Mr. H. G. Plimmer, and Mr. W. C C. Pakes Section C will study Experimental Pathology: the chairman will be Dr. F. W. Pavy, F.R.S, and the secretary Dr T Grigor Brodie; whilst the committee will be formed by Dr W. S. Lazarus-Barlow, Mr. Walter Edmunds, Professor E. H. Starling, F.R.S., and Mr. C. A. Ballance. Finally, Section D will be concerned with Chemical Pathology. the chairman will be Professor W. D. Halliburton and the secretary Dr. A. E. Garrod; and the committee will consist of Mr. F. G. Hopkins, Dr. Vaughan Harley, and Dr. S. G. Hédin. It will be interesting to see how this new scheme will work. We believe it will be found greatly to increase the value of the society and to accentuate the advance of pathological knowledge. The large number of physicians and surgeons who have done special work in the various branches of pathology as above indicated, and who have been appointed in some capacity to the different sections, will doubtless take an increased interest in the work of the society generally, and a friendly rivalry will probably exist between the sections to forward as far as possible original research and to encourage those who have special opportunities of studying and observing morbid specimens and pathological processes to bring the result of their observations before one or other of the sections, so that the members who frequent that section will be able to criticise and to suggest much to the advantage of pathological work in general.

CHELSEA CLINICAL SOCIETY.

THE fourth annual dinner of the Chelsea Clinical Society was held at the Criterion Restaurant, Piccadilly-circus, W., on May 23rd. There was a large attendance of members and guests under the chairmanship of Dr. William Ewart, the retiring president of the society. After the health of "The King" had been duly honoured Dr. Ewart proposed the toast of "The Chelsea Clinical Society" and dwelt upon the great advantages likely to accrue to that society from its association with the Jenner Institute of Preventive Medicine. The latter institution has generously offered to the society the use of its rooms for meeting purposes and the meetings of the society next session will probably be held at the Jenner Institute Kindred societies were replied for by Dr. Archibald Garrod and Dr. Dundas Grant and the visitors by the Rev. H. J. Kitcat. Mr. C. A Morris, the president-elect of the society, Mr. Foster Palmer, and other members spoke during the evening, the speeches being pleasantly interspersed with music.

BLUE URINE.

THE case recorded in another column of a patient who passed blue urine is a good illustration of a rare phenomenon, and Mr. John Good deserves thanks for having brought it to the notice of the profession. Methylene blue is now fairly frequently prescribed in neuralgia and kindred affections. The urine of patients taking this drug becomes coloured blue, but this cause of the colour of the urine cannot apply to Mr. Good's case; he made careful inquiries and satisfied himself that his patient had not been taking methylene blue. We believe the etiology suggested by Mr. Good to be the correct one—namely, that indol was produced from the products of proteid decomposition. Indol by the putrefactive action of the bacillus coli forms indican, which on oxidation causes the formation of indigo. For these chemical changes to occur before the urine is passed is most rare, but this phenomenon has been noted in cholera and in typhus fever. The blue colour is more frequently seen when the urine has been exposed to the air and is becoming decomposed. Indican occurs in the urine more particularly in cases of constipation and in cases of long-continued intestinal obstruction. Professor J. Rose Bradford, writing in Professor T Clifford Allbutt's "System of Medicine," states that it is also found in cases of putrid inflammation, such as putrid empyema and gangrenous pneumonia, also in tuberculous peritonitis, gastric ulcer, cancer, and other diseases. Should the indican become oxidised in sufficient quantity, the urine may then become blue from the formation of indigo. The latter substance is occasionally found in urinary sediments and calculi.

IN connexion with the establishment by the Metropolitan Asylums Board at Rochester House, Little Ealing, of a training-school for 150 imbecile children of a more hopeful type than the mass of those congregated at Darenth, Dr. G E. Shuttleworth (now examiner of defective children to the London School Board and formerly medical superintendent of the Royal Albert Asylum, Lancaster) has been appointed medical expert, and Dr. R. Halstead Dixon visiting medical attendant.

THE *London Gazette* of May 28th officially announces the following appointments to the Royal Victorian Order:—To be a Knight Commander: Mr. Frederick Treves, C.B. To be a Commander: Mr. Alfred Downing Fripp, C.B., M V.O. To be a Member of the Fourth Class: Dr. William Augustine Ellison.

MR. JAMES GRAHAM, M.A., M.D. Edin., M.B. Sydney, the Mayor of Sydney, whose knighthood was recently announced, was knighted by the Duke of Cornwall and York on May 29th at a *levée* held at Government House, Sydney.

THE Jubilee Festival (1850-1901) Dinner of the Islington Medical Society will be held at the Café Royal, Regent-street, London, W , on Wednesday, June 5th. The chair will be taken by Dr James Grey Glover, J.P.

MR J. BLAND-SUTTON will be a candidate for a seat on the Council of the Royal College of Surgeons of England at the next election.

THE REPORT OF THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA FOR 1899.

CONCLUDING NOTICE.[1]

THIS question of the vastly increased susceptibility of the European soldier to be attacked by typhoid fever during the first two years of his service in India, and notably during the first year, has been so frequently alluded to by us that there is no need to dwell upon it now. The fact has been repeated for so many years in Indian statistics of the disease that it may be taken as established and it has a most important bearing upon our military occupation and rule of India. The European military population of that country may be said to constitute a great etiological and pathological experiment. The white population of India is almost exclusively made up of individuals of that time of life which may be termed the enteric fever age in all countries, and as far as the army of India is concerned its numerical strength is maintained under a short-service system by being annually replenished with fresh arrivals of young soldiers from the United Kingdom who, during their earlier years of Indian service and whilst they are undergoing a process of seasoning, acclimatisation, or of "survival of the fittest"—call it what we will—form a material highly susceptible to typhoid fever. The comparative freedom of the British garrison at Aden from this disease falls in with the foregoing observations, for the troops garrisoning Aden are usually composed of corps which are on the homeward route after having served their time in India.

One of the most important and interesting points connected with the prevalence of typhoid fever in India is as to whether the native population suffer from that disease. If it could be shown that they did then we need not go far in seeking for an explanation of its spread among Europeans, for with the customs and habits of the natives of India the disease-cause would be widely distributed in the surface soil That cases of the disease do occasionally, though rarely, occur among them is not denied, but what is denied is that the races of India do, as a rule, suffer from the disease. On the contrary, it is contended that they are, practically speaking, immune, and as far as there is any positive evidence on the point of a statistical and clinical character, it is strongly corroborative of this view, as we have frequently had occasion to point out. Assuming its general correctness—as must, we think, be done, if only for the sake of argument, there are several ways in which it has been accounted for. That more especially favoured is that the diarrhœal disease to which native infants and children are subject is in reality typhoid fever. If this be so it is, of course, easy to explain the relative, or nearly absolute, absence of that fever in the adult native population. The native, it may be said, having paid his tribute to typhoid fever in early life acquires thereby a relative immunity from subsequent attack. But in the case of Europeans at home it is difficult to diagnose typhoid fever from the clinical symptoms alone, and it is confessedly still more difficult in the case of the natives of India, where the term "fever" has a very wide and undefined significance and where it has been the practice to collect together a number of undifferentiated fevers and diseases of an anomalous sort and to affix one and the same label—that of fever—to the lot. On the other hand, typhoid fever does not appear to be a common complaint among the children of European parents resident in India.

---

[1] The first notice appeared in THE LANCET of May 11th, 1901, p. 1352.

An attempt, we are glad to say, is now being made to investigate this subject and to solve the problem of the prevalence or not of typhoid fever among the native populations of India by having recourse to a more exact and scientific method for its diagnosis than can be obtained where we have to depend solely upon a consideration of the symptoms and clinical history. We refer to the diagnosis of typhoid fever by means of the serum agglutination and sedimentation reaction test. An experimental investigation of this nature is now being carried on in connexion with the Research Laboratory at Bombay, and there is an interesting report on the subject in the *Indian Medical Gazette* for April last by Captain George Lamb, I.M.S. This medical officer considers that typhoid fever is much more common amongst natives, especially children, of India than is commonly supposed. This branch of study is, however, still in its infancy, and in the meantime it is quite allowable to indulge in some speculation based on the ascertained facts so far as we know them in regard to the alleged non-prevalence of typhoid fever among the native Indian population. It is a subject, as we have said, to which we have more than once called attention. That cases of this fever do occasionally occur among them is admitted, but their number is quite insignificant in comparison with those which occur among the European population in their midst. It is also a somewhat significant and noteworthy fact that the cases of typhoid fever which arise, for example, among the native army of India are most commonly recorded among Ghoorka troops coming from Nepaul (an elevated district with a relatively cool climate) to the plains of India. These are meat-eaters and spirit-drinkers like the British troops, whilst the natives of India are not. Moreover, we know how the habits of the natives and the disposal of night-soil in and around native jails lend themselves to soil-contamination but without, so far as ascertained facts are to be relied upon, causing the spread and prevalence of typhoid fever. May it not be that the great liability of the European in India and the immunity of the native to this form of fever is not so much attributable to any racial differences as to differences of food—that diet may be reckoned among the factors productive of enteric fever—that the typhoid bacillus, for example, may find a favourable soil, especially adapted to its growth and development in a flesh-feeding people which it does not find in the graminivorous races of India? It may be that there is a great difference between the two in regard to the nature and composition of their fæcal products, or in the bacterial intestinal flora in the two cases. Supposing this to be so, it would be easy (if we take note also of the factors of youth and recent arrival in the case of the European soldier) to account for the great liability of the British to be attacked and to die from this fever as compared with the native soldier on the one hand and the innocuous non-infectious properties and nature of the fæcal discharges of the latter on the other—the bacillus of Eberth or the disease-cause, be it what it may, not being present in such discharges owing to their not affording a suitable nidus for it. On physiological grounds it would seem that the nature of the food consumed by the natives of India is better adapted to the climate than is a dietary in which meat and beer (alcohol) enter so largely. It would however, be both impracticable and unwise, as far as the European soldier is concerned, to make any great change in this respect, but it might be possible, nevertheless, to consider whether his diet could not be more assimilated to that of the native and the requirements of the climate than is the case at present.

The typhoid bacillus must be much more widely distributed in nature than is generally imagined, and it is no longer tenable that enteric fever is an exclusively water-borne disease. The trend of scientific opinion in the present day is in the direction of the soil, although no essential difference has been made out between the soils of fever and non-fever areas—at least, that seems to be the reading of some of the latest researches and of the valuable pioneer work carried on by Dr. Sidney Martin and Dr. A. C. Houston of the Research Department of the Local Government Board in the recently published report for 1899–1900.

The truth is that there is still a great deal to be learned about the etiology and spread of typhoid fever and that much of the teaching and doctrine in regard to the subject has been hitherto expressed in a too peremptory and dogmatic way. Without assuming, for instance, that the bacillus coli becomes changed into the enteric bacillus we do not yet know all about the relations of one to the other and there exists a good deal of evidence to show that Sanarelli's experimental results are applicable to typhoid fever in the human subject and that auto-intoxication with the products of intestinal fermentation is a factor in the causation of typhoid fever. We now find that the typhoid bacillus will grow readily in some kinds of soil which have been sterilised and that, on the other hand, it would almost look as if the putrefactive bacteria were among its more formidable antagonists, and in the Sanitary Commissioner's report under review Professor Hankin is quoted to the effect that the enteric fever microbe is one that flourishes better in comparatively pure than in very polluted water.

We have devoted a large amount of space to this subject of typhoid fever in India at the risk, we fear, of wearying our readers, but the subject is one of great importance, considering the drain which this fever annually makes on the health and life of the young manhood of this country. We would only add one further remark and it is this: How far would it be practicable to introduce the biological system of drainage into Indian stations and military cantonments in place of the existing dry-earth system which, despite its advantages and simplicity, is nevertheless attended with difficulties and many possible risks and dangers to health? Passing on to other subjects in the report under notice, we find that there were altogether 83 cases of scarlet fever and six deaths in the European army in India—a disease of rare occurrence there. If we recollect aright the occasion of the importation of the infection to India was first of all recorded some years ago by Surgeon-General T. Maunsell, C.B., and the fact was noticed in Watson's "Practice of Physic." The infection on the present occasion (1899) was imported in the transport *Simla* and all, or nearly all, the cases were traceable to that source.

At pages 56 and 57 of the report there are some interesting data about dysentery and hepatic abscess. It may be mentioned that the mortality from the latter disease was 32 times greater among the European troops than among the native troops, while the admission-rate for dysentery was higher among the native soldiers. We pass over the statistics and remarks on venereal diseases, which show a decreased prevalence (pages 58 and 59), because we do not think that there has yet been time to form any correct estimate of the effect of the new measures which have been, or are being, adopted.

At pages 61 and 62 there are some brief remarks on the vital statistics of officers, women, and children which are worth being referred to if only because they so often escape notice owing to the space devoted to other subjects. A note is added illustrative of the need for caution in the use of serum diagnosis (Widal test).

Our review has already extended to such a length that we must omit all allusion to the sections devoted to the native army, the jails of India, and the general population. Section X. of the report (page 231 *et seq.*), under the head of "General Remarks," discusses in an interesting sketch the scientific work which has been undertaken in the investigation of Indian fevers and the progress of preventive inoculation for enteric fever.

NOTIFICATION OF TUBERCULOSIS.—Dr. W. H. Symons, the medical officer of health of Bath, in his annual report for 1900 mentions that 82 deaths occurred from tuberculosis. After every death from tuberculosis a visit is paid to the house, inquiries are made, free disinfection is offered, and advice is given as to the prevention of the disease. Dr. Symons adds that the voluntary notification of tuberculosis, with the consent of the patient, came into force on Nov. 24th last.

MEDICAL MEN AND THE WORKMEN'S COMPENSATION ACTS.

III.[1]

ALLUSION has been made in preceding articles to the medical referees constituted under the Workmen's Compensation Act of 1897 and to some of their duties The medical referee has now been in existence for some years, and medical men have had experience of the responsibilities and difficulties of the post The position assigned to him by the legislature is one of considerable importance, but the questions upon which he is intended to be the final arbiter are frequently questions upon which no human being could truthfully give the conclusive answer which the legislature seems to expect For example, the employer wishes to put an end to weekly payments made to an injured workman who, he alleges, has completely recovered The workman claims to be still suffering from symptoms which, he says, are the result of the accident The question of whether he so suffers and whether the symptoms are due to the accident, or not in any way connected with it, may provoke conflicting opinions honestly formed by two competent medical men who have seen him from time to time ever since the accident took place, and perhaps before it. On their differing in opinion the matter is referred to the medical referee, perhaps a year or two after the accident, in order that he may read the medical evidence, examine the patient, and report It is quite possible that his report in such circumstances may wisely leave the continuance of the workman's compensation largely to the discretion of the judge or arbitrator.

The duties of the medical referee (apart from those which we have mentioned in the second article, where a workman, dissatisfied with a medical examination made on him during the continuance of his weekly payments, goes on his own account to the medical referee) are performed on the appointment or at the request of the county court judge or arbitrator in accordance with the schedules of the Act of 1897 and sundry rules and regulations duly made in accordance with that Act The principal provisions of these are as follow —

> Schedule II., Sec 13.—The Secretary of State may appoint legally-qualified medical practitioners for the purpose of this Act, and any committee, arbitrator, or judge may, subject to [illegible] the Secretary of State and [illegible] to report on any matter [illegible] in the arbitration, and th[illegible] shall, subject to Treasury [illegible] vided by Parliament.

Regulations, dated May 2nd, 1898, made by the Secretary of State and the Treasury :—

> *Regulation 2*—Before making any reference the committee, arbitrator, or judge shall be satisfied, after hearing all medical evidence tendered by either side, that such evidence is either conflicting or insufficient on some matter which seems material.
>
> *Regulation 3*—Every reference shall be made in writing [illegible]

Simultaneously with the making of the reference as above the injured man is ordered to submit himself for examination by the medical referee, or if he is not in a fit condition to travel this is to be stated in the reference The reference has to be duly signed by whoever makes it, and countersigned by the registrar of the county court, who shall insert in it the name of the referee proper to be appointed, if no such name appear on it, and shall forward it to the medical referee, and the medical referee shall not [illegible] unless it is duly signed and sealed [illegible] "reference" the medical referee appoint[illegible] for the examination of the injured m[illegible] sends him notice accordingly, examines him and the evidence submitted, gives his report in writing, and forwards it to the registrar from whom he received the reference

> *Regulation 18*—The committee, arbitrator, or judge may, by request signed and forwarded in the same manner as the reference, remit the report to the medical referee for further statement on any matter to be specified in such request.

The medical referee, therefore, is an expert adviser or assessor of the judge or arbitrator, and is not in any circumstances a witness, although he may be summoned to be present at the hearing of a case in which he has reported. The legislature imposes considerable responsibility upon him, but in return it shows confidence in his skill and a laudable desire that the evidence of medical witnesses which may with perfect fairness be conflicting or which may almost unavoidably be coloured by circumstances shall be weighed by one who is himself an expert and who by his position should be absolutely impartial.

The regulation governing the presence of the medical referee during the arbitration is as follows :—

> [illegible] being called as a witness

With regard to the fees to be asked by the medical practitioner not a referee in cases where he is required to make an examination under the Act no scale is laid down, but medical men must settle a reasonable fee in accordance with their knowledge of the circumstances of those who will pay it, whether individuals [illegible] The following are the fees fixed [illegible] compensation of the medical refere[illegible] the Treasury, the medical referee [illegible] Office each quarter in a prescribed form a statement of the payments due to him

> 1 For a first reference, to include examination of the injured workman and written report, two guineas.
>
> 2. For a further statement under Regulation 18 on any matter not covered by the original reference, one guinea
>
> 3 For a second or subsequent reference to the same referee in a further arbitration on the same case, to include examination, if necessary, and written report, one guinea
>
> 4 Where a medical referee attends at the request of the county court judge or appointed arbitrator, for such attendance three guineas.
>
> 5 Where, in order to examine the injured workman or to attend on [illegible]

The above may afford some idea of the views of the Treasury as to reasonable fees in cases of the kind contemplated.

In writing of the Workmen's Compensation Acts we have only dealt in general terms with those portions of them which are likely to be of interest to members of the medical profession at large who may at any time, particularly now that the "workman in agriculture" is a subject of compensation, be called upon to observe them. We do not quote the whole of the rules and regulations dealing with medical referees because we are inclined to assume that those who from time to time are appointed as such will possess themselves of copies of the Acts, regulations, and forms under which they have to perform their duties, or will purchase some legal handbook containing them, together with notes upon them. There are many such, some of them stocked with a considerable amount of learning, on the vexed questions decided or likely to arise in construing the Act, those by Messrs Beven, Ruegg, and Minton Senhouse being, perhaps, the principal ones. A handy small book not over burdened with matter of this kind, which to a medical man is superfluous, is entitled "The Workmen's Compensation Act," by W. A. Willis, barrister-at law It costs 3*s* 6*d*. and is published by Butterworth and Co, Fleet street, and Shaw and Sons, Fetter lane As far as we know a new edition has not been brought out since the Act of 1900 but pre[illegible] [illegible] Acts will insure, and for the benefit of medical men who may have "workmen in agriculture" in their employment, and who do not wish to be responsible for all the accidents which may happen to them, we mention that they can be insured at the moderate premium of 3*s* for every hundred pounds paid in wages, the rates for other workmen varying from 5*s* to £1 5*s* per hundred pounds paid in wages, according to the nature of the dangers associated with the insured persons' work.

---

[1] Parts I. and II. appeared in THE LANCET of May 18th (p. 1370) and 25th (p. 1457) respectively

THE MEDICAL, SURGICAL, AND HYGIENIC EXHIBITION.

THIS annual exhibition maintains its popularity, as is evident from the increasing attendance year by year. Last year there were present, according to the statement of the chairman of the Organising Committee, Mr. Fred Weiss, in his inaugural speech on the opening day (May 28th), over 3000 medical men. The committee, he added, were very much encouraged this year by the number of applications made by new exhibitors.

On Tuesday afternoon the Queen's Hall, Langham-place, W., presented an animated appearance, calling to mind an Oriental bazaar rich in colour and abounding in air redolent with an indescribable mixture of aromas. One very interesting and important feature of the exhibition this year was the display of sanitary appliances for special medical and surgical purposes and for everyday purposes also. Considerable progress has been and is being made with appliances of this class, such as lavatory basins, water-closets, operating room sinks and tables, hospital sinks, &c., the aim being to secure greater cleanliness and convenience in operation than was hitherto possible. We shall describe some of these appliances at a later stage in this article. Of course there must be a certain amount of the commercial element connected with this exhibition, but we were glad to find that, on the whole, the visitors were spared much of the annoyance of the appeal of the tout which is too often characteristic of this kind of "exposition." Each section, as implied in the title of the exhibition, was well represented, drugs, special foods, surgical appliances, sanitary appliances, miscellaneous articles, periodical literature, books, &c., forming an attractive and engaging *tout ensemble.*

Fine chemicals, alkaloids, and drugs constituted the excellent collection of specimens shown by Mr. E. Merck (Darmstadt) whose London office is at 16, Jewry-street, E.C. As is well known, Mr. Merck issues periodically his "Notes on New Remedies" which give full information on the recent additions to pharmacy. Amongst the specimens shown were jequiritol and jequiritol serum (a substance which produces artificial conjunctivitis), bromipin and iodipin in capsules, the new halogen oils, various glycerophosphates, cacodylates, physiologically pure sodium salicylate, hæmol, hæmoglobin in scales, and other fine preparations. Besides "hypodermules" of suprarenal gland solution with and without chloretone, Mr. Frank A. Rogers (327, Oxford-street, London, W.) exhibited a series of special sprays for treatment of the larynx and naso-pharynx. The method of spraying into the nose or throat direct from hypodermules or sterilised sealed glass capsules is worth attention. Messrs. Cooper's exhibit (80, Gloucester-road, London, S.W.), though tastefully decorated with syphons of the oxy-carbonated water now connected with their name, showed also a series of fine drugs as well as different forms in which they may be administered. Amongst the former may be mentioned acoin (a local anæsthetic and for ophthalmic injection), various cacodylates, nirvanin (an anæsthetic giving a longer effect than cocaine), and amongst the latter cachoids (that is, soluble wafer capsules) gelatin capsules, medicated pastilles. The exhibit also included the "globena" meat essences. Besides palatinoids and bi-palatinoids (which afford an ingenious and satisfactory way of administering drugs), Messrs. Oppenheimer, Son, and Co., Limited (179, Queen Victoria-street, London, E.C.), exhibited traumatol or cresylic iodide which is, as we have pointed out, a powerful bactericide not inferior to mercuric chloride while it is, comparatively speaking, non-toxic. The exhibit included a new hypodermic case and some medicine cases suitable for attachment to a bicycle. Messrs. Parke, Davis, and Co. (111, Queen Victoria-street, London, E.C.) represented their specialities in standardised fluid extracts, chocolate-coated tablets, elixirs, soluble elastic capsules, and sera. We have recently described adrenalin which is regarded as the active principle of the suprarenal gland. The exhibit included an interesting series of compounds of mercury, silver, copper, and iron with nucleinic acid. Similarly we have recently called attention to some favourable features of the Abbey Effervescent Salt (144, Queen Victoria-street, London, E C). It is composed of well-known saline aperients and is agreeably effervescing. The interesting preparations known as bromaurum and hydraurum were the feature of Messrs. Arthur and Co.'s stall (69, Berners-street, London). They have been used in a variety of maladies—in rheumatism, epilepsy, hysteria, and diabetes. The neutral solution of lime and iron, the biniodide antiseptic soap, and a special cream soap, cleansing and antiseptic, are also worthy of mention. Messrs. Rebman, Limited (129, Shaftesbury-avenue, London, W.C.), besides exhibiting recent publications, had a space assigned for serum preparations which are sold in cases containing two hermetically sealed flasks each. Amongst these were Lustig's and Haffkine's anti-plague vaccine and Yersin's serum.

There was a great variety of special foods shown, the majority of them being either milk itself modified in some special manner or a milk product. The Aylesbury Dairy Co. (St. Petersburgh-place, Bayswater), for example, showed all sorts of modified milk, peptonised milk, humanised milk, sterilised milk foods, and sparkling Koumiss. The exhibit included a very interesting series of products illustrating the researches carried out in the company's laboratory on the composition of human milk contrasted with the milk of the cow, the goat, the ass, and the mare. The exhibit afforded excellent evidence of the system of scientific control which this company, to their credit, have rigidly adopted. Plasmon is now well known as the soluble proteid of milk unimpaired in any way in the process of preparation. The representatives of the company (56, Duke-street, London, W.) demonstrated some very interesting applications of plasmon, as, for example, in whipped form, in ices, in beef-tea, in cocoa, and so on. An excellent example of the modern scientific way in which the business of a dairy is carried on was well typified in the exhibit of Messrs. Welford and Sons (Elgin-avenue, Maida-vale, London, W.). This company make a very special feature of asses' milk, a herd of milch asses being kept expressly for this purpose under the strictest sanitary precautions. The exhibit included peptonised, humanised, and sterilised milk, all produced under the same control of a large scientific staff. Peptore is the precipitated proteid of milk prepared by the Protene Co., Limited (36, Welbeck-street, London, W.). Protene has many valuable applications, as in bread, biscuits, and in diabetic foods. The advantages of Hovis (Macclesfield and London) bread are well known; it contains the germ of the wheat and possesses an attractive nutty flavour and is never dry. By the use of Hovis flour the germ of wheat may be included in biscuits and other articles of food An interesting addition to the exhibit this year was "Lito," a new self-raising flour. Close by this stall was Cerebos Salt, which is now recognised as a great advance on the old table and culinary article, keeping not only dry and in a fine form, but containing also a small proportion of the soluble phosphates (3, Maiden-lane, London, E C) Amongst nutrient meat preparations must be mentioned as of distinct merit "Hipi," a pure mutton essence (G. Nelson Dale and Co., 14, Dowgate-hill, London, E.C.). As we have shown in our columns it is a really nourishing and palatable article, affording an agreeable change from the more often used beef extract Messrs. Fairchild Brothers and Foster (Snow-hill-buildings, London, E.C.) showed their well-known digestive and digested products. Amongst the former is pepsencia (a solution of the essential organic ingredients of the gastric juice taken directly from the peptic glands), pepsin in tablets now known as "pepules," and enzymol, a solution obtained from the stomach glands in a carefully sterilised menstruum. An interesting application of this latter enzyme is in dissolving albuminous matter in the various forms occurring in false fibrinous membrane, sloughing tissues, &c. Of digestive products panopepton may be mentioned perhaps as the best type, containing the entire substance of beef and wheat-flour in rapidly diffusible and assimilable form. Extracts of meat were represented in various forms at the stall of Liebig's Extract of Meat Co. (9, Fenchurch-avenue, London, E C.) Amongst the new preparations added to the already excellent list is "Oxo" which, as we have shown in our analytical columns, is not a mere stimulant but a nutrient preparation also The Manhu Foods (88, Charing Cross-road, London, W C), are represented as diabetic foods though containing carbohydrates to the same degree as wheat flour because the starch is said to be changed in such a way that it is acted upon by the intestinal juices so completely as not to aggravate the condition of the diabetic These foods appear to have been tried by some physicians who report good results in spite of the theories held that carbohydrates should be excluded from the regimen of diabetic patients Similar arguments are advanced by the Cheltine Food Co , Limited (Cheltine Works, Cheltenham) who exhibited a number of foods of a special kind They hold that the starch of the cereals used is still starch, but that owing to a certain process of manufacture it may serve its normal purpose in the nutrition of the body of the diabetic patient instead of being excreted as sugar These statements seem to us to require very definite clinical confirmation A very great variety of special foods was shown by Bovril, Limited (152 to 156 Old street, City-road, London, E C) The preparations included raw meat juice as well as the extracts and also the emergency foods and rations which gave satisfaction in the South African war Close by was the exhibit of Virol, Limited, of 152 Old street, City road, London, E C We have already described this preparation which is composed of the proteids and fat of beef and eggs, the marrow of beef and extract of malt, all these being associated with their respective mineral salts which are of dietetic value Messrs Cadbury Brothers (Bourneville, Birmingham) exhibited their well known cocoa These manufacturers make special claim for the purity of their cocoa, the process of manufacture relating only to the fine grinding of high quality cocoa and the expression of a good deal of its indigestible fat We have already critically examined the special foods of Messrs Callard and Co (65, Regent-street, London, W), and invariably we have been enabled to confirm the special claims made for these foods, such, for example, as the food for the diabetic the food for reducing weight, the food for indigestion, and the food for the rheumatic and gouty A very satisfactory feature of Nestlé's condensed Swiss milk (H Nestlé, 48, Cannon street, London, E C) is the maximum proportion of fat which it contains, an average of just over 13 per cent The exhibit included condensed milk without sugar and a special food for infants We have published analyses of somatose, a tasteless and odourless powder made from beef and consisting largely of albumose The company (165, Queen Victoria street, London, E C) now prepare a fluid somatose which is more convenient for administration than the powder We have also described analytically Maggi's excellent consommé for the preparation of a nutritious soup It contains something more than the mere extractives of meat—in fact, the nutrient principles The tonic bouillon contains, as we have also shown, an assimilable form of iron Messrs J and G Cox, Limited (Eastcheap buildings, London, E C) exhibited their sparkling gelatin which is a pure product and reliable for dietetic purposes Besides the well known fluid malt extract, M Hoff (29, Newbury street, London, E C), exhibited liqueur ironol and Mattoni's iodine preparations Meat preparations were of course the feature of the exhibit of Messrs Brand and Co of Mayfair, London, W They showed raw meat juice as well as essences and peptones and a nutrient powder which we have already described in our analytical columns It is prepared from the fibre of muscle and contains the proteids unaltered and uncoagulated Messrs G Van Abbot and Sons (104, Wigmore-street, London, W) showed their various foods for diabetics, dyspeptics, and invalids, including the well known gluten bread, bran gluten rolls, soya bread, almond bread, and so on We note that they are introducing a new and cheap biscuit for diabetic patients called the Midolia biscuit In the analysis given of this biscuit the proteids are recorded together with the cellulose as 46 14 per cent This is a perfectly unintelligible association, proteids, of course, constituting flesh formers and cellulose being of no food value whatever Hence from this analysis the food value of the biscuit cannot be deduced

Next week we propose to give an account, amongst other things, of the interesting and novel series of sanitary appliances which were offered for inspection and which formed a very important and attractive feature of this year's exhibition

(To be continued.)

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY

THE eighth annual report and balance sheet of the London and Counties Medical Protection Society were received and adopted at the annual general meeting held at 12, New Court, Carey street, Lincoln's Inn, W C , under the presidency of Mr Jonathan Hutchinson, on May 28th Though the number of members present was only 17 considerable discussion took place before the adoption of the report

The annual report of the Council stated that the society had made very satisfactory progress both in numbers and in financial position A large number of members had availed themselves of the help of the society and the increasing number of members made the work considerably heavier As usual, a great many cases had been dealt with in which patients had tried to evade paying for the services of their medical attendants by alleging negligent or unskilful treatment As a rule, it had sufficed for the society to undertake the case for the fees to be paid forthwith Unceasing efforts had been made to suppress unqualified practice, but unfortunately the highly unsatisfactory state of the law enabled quacks to continue their evil practices with impunity The interests of the dental section had not been overlooked and a batch of dental cases will come before the next meeting of the General Medical Council in regard to unprofessional advertisements In accordance with precedent the Council did not publish details of cases in which the assistance of the society had been sought and obtained When a member of the society complained of unqualified practice in his own immediate neighbourhood the matter had been taken up and dealt with as one directly concerning the interests of the member The reserve fund had now nearly equalled a sum representing 15s for every member of the society, but it would, of course, have to be increased as new members joined

Dr L LIEBSTER commented on the very vague terms in which the report had been drawn up and asked for the number of the quacks who had been prosecuted by the society and also how many members there were in the society

This speaker was followed by Mr E R DAWSON who explained that it was difficult to get new members in his district because of the evasive and impotent reply that had been received from the society in answer to a letter asking for the prosecution of a quack. He had noticed that the Medical Defence Union not only secured the credit of doing a great deal of work but they took care to bring the facts well before the profession He was not at all satisfied with the attendance at that meeting and would like to know the number of members in the society so as to judge what percentage was present

Mr A G R FOULERTON (honorary financial secretary) stated that the number of members was somewhere between 1600 and 1700 and he suggested that it was possible to arrive at the number by calculating from the figures in the balance-sheet

Dr HUGH WOODS (general honorary secretary) replied at great length concerning the principles which governed the management of the affairs of the society by the Council He gave a brief sketch of the present position of the law as to medical practice and stated that the Council had not seen its way to carrying out the prosecution of a quack during 1900

Dr LIEBSTER said that he was quite satisfied and the accounts and balance sheet were unanimously passed The various officers of the society were re elected and the proceedings closed with a vote of thanks to Mr. Jonathan Hutchinson for taking the chair

ASYLUM REPORTS

Derby Borough Asylum (Annual Report for 1900).—The average number of patients resident during the year was 304 and comprised 143 males and 161 females The admissions during the year consisted of 94 patients—viz , 51 males and 43 females Of these nine—viz , five males and four females, were not first admissions Dr S Rutherford Macphail, the medical superintendent, states in his report that among the admissions were 10 patients from the union who were afterwards transferred from the pauper to the private class. Five males and four females among the admissions had formerly been under treatment in this asylum. "*Only* six of the nine cases were relapses after previous recovery; they had, on an average, kept well for four years and one month since their discharge." The mean age of the patients admitted was 43 years, the youngest being 16 and the oldest 82 years. Five of the patients admitted were transferred from other asylums and were all chronic cases. Forty-two per cent. of the admissions were cases of recent and, possibly, curable insanity, while the proportion of general paralytics was less than that of the previous year, but against this should be set the tendency each year to send in more senile and hopeless patients who hitherto would have been cared for in their own homes or in workhouses. Suicidal tendencies were present in 54 cases admitted, and 17 of these were actively suicidal and required constant watching to prevent self-destruction. Only eight of the admissions were in good or average bodily health, while four were admitted in a critical and almost moribund condition, and of these three died within a fortnight. Of the causes of insanity among the admissions alcoholic excess was found in 21 cases, influenza in 10, and old age in seven cases; 31 patients were predisposed to insanity on account of hereditary influences, and 18 had had previous attacks. The number of cases discharged as recovered during the year amounted to 34, or 11·1 per cent. of the average number resident. The number of deaths was 44—viz., 24 males and 20 females, or 14·4 per cent. of the average number resident. "Two-thirds of the deaths occurred in the first quarter of the year and were indirectly the result of a severe epidemic of influenza." General paralysis was the cause of death in 16 cases, or 36 per cent. of the total number of deaths. The average length of residence of these patients was under 10 months. Cardiac disease was responsible for four deaths and three patients died from phthisis. One case of suicide of a remarkable nature occurred and was the subject of a coroner's inquest. A female patient suffering from melancholia "tore out her tongue and threw it on the floor by the unaided use of her fingers." There was extensive bleeding which was soon controlled, but the shock was severe, and being a sufferer from heart disease she died 42 hours afterwards. "There had been no previous attempt at self-destruction by this patient, but she was regarded as suicidal." The possibility of such an occurrence had not been contemplated. "It was unfortunately impossible," says Dr. Macphail, "to prevent the other patients from hearing the details of a case of this sort, owing to the publicity given it by the local press. During the succeeding few weeks four of my actively suicidal patients told me they had tried, without success, to pull out their tongues." During the months of January and February a severe epidemic of influenza prevailed, affecting altogether 117 persons, including patients and staff. As compared with previous epidemics the symptoms and complications were chiefly abdominal; 41 per cent. of the patients and 30 per cent. of the staff were affected. A married woman who was admitted on March 1st (1900) was safely confined of a child on the 26th and she made a good recovery. Lectures and demonstrations by the medical staff are systematically given to the nursing staff. The Lunacy Commissioners in their report state that the institution is in a very favourable condition as regards management. In every case of death a post-mortem examination was made and the case-books and other medical records continue to be very well kept.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Brighton Urban District.—Dr. Arthur Newsholme gives some interesting tables in his current annual report as to the value of isolation hospitals in the control or limitation of the spread of scarlet fever. Such tables are of considerable value in view of the discussions which have recently taken place upon this subject. Scarlet fever prevailed in a mild type in Brighton last year and Dr. Newsholme asks whether, having regard to such mildness, the town obtains a *quid pro quo* for the somewhat heavy outlay which the machinery of control demands. He, however, answers the question unhesitatingly in the affirmative. He thinks that the isolation of scarlet fever cases in hospital tends to diminish the virulence of the disease and that such isolation, generally speaking, has had an influence in bringing about the present benign type of the disease. When, and if, the type of disease becomes more virulent there will not be wanting those who will allege that such virulence has been produced by aggregation in hospital. We cannot here reproduce all Dr. Newsholme's tables in this connexion, but those medical officers of health who take interest in this question may be glad to consult them. We present, however, one table relative to the differences in fatality-rate between cases treated at home and hospital isolated cases, and it has to be noted that the average is enormously in favour of the hospital.

Year.	Admissions to sanatoria per cent. of total notified cases.	Case mortality per 100 cases.	
		Among patients treated at home.	Among patients treated in sanatoria.
1891 (from March 1st)	70·0	—	—
1892	77·7	6·0	2·5
1893	70·6	2·5	1·6
1894	82·2	2·6	1·3
1895	77·4	2·3	2·6
1896	82·6	2·3	2·0*
1897	81·6	3·3	3·7
1898	82·7	3·1	1·6
1899	85·5	3·7	0·9
1900	87·8	5·6	1·7

* Including one death after the patient returned home.

Obviously patients are at times too ill to be sent to hospital, and in this sense the figures relative to the hospital cases are favoured, but, on the other hand, very severe cases are frequently sent to hospital on account of the better nursing to be obtained there, while among the cases treated at home are a large number of children of wealthy parents among whom the death-rate is likely to be but small. An interesting account of an outbreak of milk-borne scarlet fever is embodied in Dr. Newsholme's report. With regard to diphtheria tables illustrative of the relative prevalence of this disease among the scholars of the board schools and the voluntary schools are given, and the figures show a very considerable excess of attacks among the children in board schools—i.e., the excess in 1899 was 30 per cent. and in 1900 86 per cent. A table showing the age-incidence of diphtheria in relation to school infection is here reproduced:—

Percentage of Fatal Cases at each Age-group.

Ages.	Cases in which there was no school attendance.	Cases in which there was school attendance	
		(*a*) Including secondary cases.	(*b*) Excluding secondary cases.
0–3 ...	23·4	2·7	0·4
3–13 ...	34·3	89·2	93·7
Over 13 ...	42·3	8·1	5·9
—	100·0	100·0	100·0

The excess of diphtheria in some schools over that in others is, perhaps, Dr. Newsholme thinks, to be accounted for partially by the varying activity on the part of teachers to procure the return of convalescent children to school in order that the average attendance may be as little diminished as practicable. The experience of Brighton is, in common with practically all other towns, that diphtheria spreads largely by unrecognised cases and by what may be termed persistently infectious cases. As Dr. Newsholme observes, there is need for a much larger use of medical aid in determining why children are absent, and whether they may safely return to school; in other words, better machinery and increased expenditure are essential The voluntary notification of phthisis is now in operation in Brighton, the sum of 2s 6d being paid for each notification received, save in the case of a certificate from an official in his public capacity, when the fee is 1s On a case being notified the patient is visited by one of the medical officers of health, particulars are taken, and advice is given Japanese paper pocket handkerchiefs are left when required, and they seem to be appreciated greatly The experience of the year has been that the voluntary notification of phthisis can be worked without friction, and the patient, whose occupation has in no case been interfered with, has always been grateful for the advice given It is, however, sometimes found that when a second visit is made the house is occupied by new inmates who have taken up their quarters there before cleansing and disinfection have been accomplished A more rigid system of registering changes of address would assist administrative measures

Macclesfield Urban District —This district suffered somewhat heavily from enteric fever during 1900 and Mr J Hedley Marsh has been impressed with the high directly infective power of this disease under certain conditions He tells us that in one localised outbreak he traced no less than 75 per cent of the cases to direct infection, and in another outbreak he regarded 60 per cent of the cases as having been so caused He thinks that the delay in notification is largely responsible for the spread of the disease, and as the sanitary authority have now provided for the performance of Widal's test gratuitously doubtless the medical practitioners in the district will have any suspicious cases thus examined as early as possible

Crewe Urban District —Dr Alfred Greenwood refers in his annual report for 1900 to the large proportion which in this district still born children bear to the total number of births The annual rates for the last 11 years have ranged from 3 per cent to 5 8 per cent of the total births

Finchley Urban District —Dr Henry Kenwood, in making some observations upon the health of schoolchildren, strongly advocates the periodical inspection of the scholars by medical men in the manner which now obtains in Germany As an illustration of the advantages of this system mention is made of Leipsic where, as a result of the examination of the scholars in the schools, there were detected two cases of phthisis, 11 of heart disease, 10 of spinal curvature, 63 of obstructive growths in the nose and throat which led to defects in speech, 75 of defects of vision, and 10 of defects of hearing It is difficult to over estimate the advantages of a system such as this provided the defects found are properly dealt with The removal of adenoids alone would probably be productive of the greatest comfort and wellbeing to the children operated upon, and how much unnecessary strife may the defective vision and hearing have led to between pupil and teacher? We quite agree with Dr Kenwood that the arrangements *quâ* health protection for dealing with absentees might be enormously improved

VITAL STATISTICS

HEALTH OF ENGLISH TOWNS

IN 33 of the largest English towns 6561 births and 3674 deaths were registered during the week ending May 25th The annual rate of mortality in these towns, which had been 16 5 and 16 8 per 1000 in the two preceding weeks, declined again last week to 16 7 In London the death rate was 15 7 per 1000, while it averaged 17 4 in the 32 large provincial towns The lowest death rates in these towns were 11 2 in Croydon, 12 1 in Norwich, 12 6 in Brighton, and 13 6 in Bristol, the highest rates were 21 5 in Swansea, 21 8 in Birmingham, 22 1 in Salford, and 22 6 in Wolverhampton The 3674 deaths in these towns last week included 388 which were referred to the principal zymotic diseases, against 394, 381, and 372 in the three preceding weeks, of these 120 resulted from whooping-cough, 93 from measles, 65 from diphtheria 49 from diarrhœal diseases, 38 from scarlet fever, and 28 from "fever" (principally enteric) No death from any of these diseases was registered last week in Huddersfield, in the other towns they caused the lowest death rates in Brighton, Norwich, Oldham, and Halifax; and the highest rates in Swansea, Wolverhampton, Salford, and Preston The greatest mortality from measles occurred in Portsmouth Nottingham, and Sunderland, from scarlet fever in Preston, from whooping-cough in Swansea, Wolverhampton, Derby, and Newcastle, and from "fever" in Wolverhampton The mortality from diarrhœal diseases showed no marked excess in any of the large towns [illegible] included 22 in London, four [illegible] three in Leicester, and three [illegible] small pox was registered last week in any of the 33 large towns; and no small pox patients were under treatment in any of the Metropolitan Asylums hospitals during the week ending May 25th The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2241, against numbers increasing from 1522 to 2052 on the four preceding Saturdays; 341 new cases were admitted during the week, against 371, 397, and 323 in the three preceding weeks The deaths referred to diseases of the respiratory organs in London, which had been 237 and 249 in the two preceding weeks, declined again to 191 last week, and were 98 below the corrected average The causes of 39, or 1 1 per cent, of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner All the causes of death were duly certified in Bristol, Bradford, Leeds, Sheffield, and in 14 other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Blackburn, and Preston

HEALTH OF SCOTCH TOWNS

The annual rate of mortality in the eight Scotch towns, which had been 19 3 and 20 2 per 1000 in the two preceding weeks, further rose to 20 7 per 1000 during the week ending May 25th, and showed an excess of 4 0 per 1000 over the mean rate during the same period in the 33 large English towns The rates in the eight Scotch towns ranged from 14 2 in Perth and 18 9 in Leith to 22 0 in Aberdeen and 23 6 in Dundee The 659 deaths in these towns included 40 which were referred to whooping cough, 30 to diarrhœa, 19 to measles, two to scarlet fever, two to diphtheria, one to small-pox, and not one to "fever" In all, 94 deaths resulted from these principal zymotic diseases last week, against 99 and 89 in the two preceding weeks These 94 deaths were equal to an annual rate of 3 0 per 1000, which was 1 2 above the mean rate last week from the same diseases in the 33 large English towns The fatal cases of whooping cough, which had been 49 and 41 in the two preceding weeks, further declined last week to 40, of which 19 occurred in Glasgow, 13 in Edinburgh, four in Leith, and three in Dundee The deaths from diarrhœa, which had been 20 and 18 in the two preceding weeks, rose again to 30 last week, and included 17 in Glasgow, three in Edinburgh, three in Dundee, three in Aberdeen, two in Paisley, and two in Perth The fatal cases of measles, which had decreased from 25 to 15 in the four preceding weeks, rose again last week to 19, of which 10 were registered in Glasgow, three in Greenock, two in Edinburgh, and two in Paisley The mortality from scarlet fever corresponded with that recorded in the preceding week, while that from diphtheria showed a marked decline The fatal case of small pox occurred in Glasgow The deaths referred to diseases of the respiratory organs in these towns, which had declined from 169 to 101 in the four preceding weeks, were again 101 last week, and were slightly above the number in the corresponding period of last year The causes of 24, or nearly 4 per cent, of the deaths in these eight towns last week were not certified

HEALTH OF DUBLIN

The death rate in Dublin, which had been 27 4 per 1000 in each of the two preceding weeks, declined to 26 4 during the week ending May 25th During the past four weeks the death rate in the city has averaged 26 9 per 1000, the rates during the same period being 16 0 in London and 21 5 in Edinburgh The 175 deaths of persons belonging to Dublin registered during the week under notice were seven below the number in the preceding week, and included nine which were referred to the principal zymotic diseases, against 15 and 10 in the two preceding weeks, of these, five resulted from whooping-cough, three from diarrhœa, and one from "fever" These 9 deaths were equal to an annual rate of 1 4 per 1000, the zymotic death rate during the same period being 1 9 in London and 3 3 in Edinburgh The fatal cases of whooping-cough, which had been seven and eight in the two preceding weeks, further declined last week to five. The three deaths from diarrhœa showed an excess over the number in the preceding week. The 175 deaths in Dublin last week included 28 of children under one year of age and 45 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons showed a slight decline from the numbers recorded in the preceding week. Five inquest cases and three deaths from violence were registered; and 66, or more than one-third, of the deaths occurred in public institutions. The causes of nine, or more than 5 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

Royal Navy Medical Service.

Deputy Inspector-General of Hospitals and Fleets Thomas Bolster has been promoted to the rank of Inspector-General of Hospitals and Fleets in His Majesty's Fleet.

Royal Army Medical Corps.

Civil Surgeon James Bertram Clarke to be Lieutenant.

Major A. O. Fitzgerald has taken over medical charge of the Station Hospital and troops, &c., Golden Hill Fort, Isle of Wight. Surgeon-Captain Smith, A.M.R., assumes medical charge of troops, Buddon Camp. Surgeon-Captain A. Macdonald, A.M.R., proceeds to the Station Hospital, Edinburgh Castle, for duty.

Army Medical Reserve of Officers.

Brigade-Surgeon-Lieutenant-Colonel Henry William King, 2nd Volunteer Battalion the Cheshire Regiment, to be Surgeon-Lieutenant-Colonel.

Volunteer Corps.

Artillery: 4th Durham (Western Division, Royal Garrison Artillery): John Stewart Milne to be Surgeon-Lieutenant. 1st Norfolk (Eastern Division, Royal Garrison Artillery): Alexander Michael Ross to be Surgeon-Lieutenant. *Royal Engineers:* 1st Sussex: Robert Macfie Johnston to be Surgeon-Lieutenant. *Rifle:* 1st Volunteer Battalion the Essex Regiment: James Aitken to be Surgeon-Lieutenant.

The War in South Africa.

It must be confessed that to the ordinary reader in this country it is very perplexing and difficult—even with the aid of Lord Kitchener's laconic despatches and a good map—to follow out the military policy and course of events in South Africa. We hear of sweeping movements in this direction and that and we get summary statements from time to time of the captures effected by the British columns and of huge losses by the Boers in horses and live stock and in ammunition and food stuffs until the wonder is that any ammunition is left for the Boers to fight with or that anything is left for them to maintain a separate existence in the field. The extent and nature of the country are eminently suited, of course, for the Boers' elusive tactics, who at once split up and retire on the approach of a British column only to emerge again as soon as it has departed. It seems still to be the case that our forces have not sufficient mobility to catch the Boers, nor is this to be wondered at considering the distances that have to be traversed. Our possession of the railway is a great factor in our favour, but apart from the frequent raids made upon it by the Boers much of the fighting and many of the skirmishes are not along, or in the vicinity of, the track of the railway, and the number of horses required to mount our troops and to keep them moving in pursuit of the enemy is enormous. The following is an extract from a letter received by a member of our staff from a private in the Cameron Highlanders. The particular "Tommy Atkins" in question, who is evidently a rather observant person, bears out the views so frequently expressed in The Lancet.

> Sir,—There is a lot of *mounted troops keep* coming out here and the public think we should send troops home in return. I don't; there is not enough out here yet, the more troops the quicker it will be finished and will be cheaper in the end. Infantry is no use now only for guarding convoys and the railway. It is a very bad country and I am sure if people at home was but here to see it they would open their eyes.

The Boer leaders, whose names are by this time as familiar as household words with the British public, disappear and reappear on the scene of action in a somewhat perplexing way. They are neither caught nor do they surrender. Meanwhile, so far as the Orange River Colony is concerned, we really seem to be getting its civil administration into working order, and for the rest of the country we have only to possess our souls in patience and to await a possible sudden and unexpected collapse or a slow disintegration in the way of inanition of the force fighting against us. The lists of wounded which appear from time to time show that a chronic "sniping," alternating with an occasional acute engagement or skirmish, is still going on and that enteric fever holds an important place among the diseases of the army in the field. Happily, plague makes but slow progress and we do not hear of any severe outbreak or recrudescence of that disease such as has been recently reported to have occurred at Hong-Kong.

The Post-Graduate Education of Naval Surgeons.

The April number of the *Archives de Médecine Navale* contains an appreciative notice of the recommendations made by the commission which was recently nominated to report upon the system of instruction in vogue at Haslar. "In its very interesting report," says the author, Dr. Portengen of the Dutch navy, "the commission in the first place insists upon the insufficiency of the existing cours in so far as concerns the diagnosis and treatment of th tropical diseases which are to be met with at exoti stations." The attention of the commission had naturall been called to the School of Tropical Medicine recentl established near the Albert Docks under the auspices of th Colonial Minister, but in its opinion the instruction at tha institution lasted too long for the purpose in hand, and moreover, included subjects, such as gynæcology, that wer unsuitable. The several additions recommended by th commission to the Haslar course as it now stands—i e tropical pathology, blood analysis, and serotherapy—mee with the writer's unqualified approval, as does the pro posal to establish special wards for men suffering from diseases that were acquired abroad. Dr. Portengen likewis thinks well of the stress laid upon the following subjects removal of sick and wounded men; naval surgery; the equipment of hospital ships; and the application of the Roentgen rays. The extension of the course to four month and the appointment of an additional professor he regards as sufficient; and he approves the suggestion of offering special prizes for the encouragement of zealous students. Finally, he mentions with commendation the commission's advice regarding the supply of instruments for medical officers at a cost of 500,000 francs. The sole unfavourable criticism in this exhaustive article has reference to the omission of provision for an electro-technical examination in cases of beri-beri, "which," says Dr. Portengen, "is such a very valuable procedure."

Deaths in the Services.

Inspector-General William Kilner Swettenham (retired list), A.M D., at his residence, in West Kensington, on May 21st, aged 84 years. He joined the army April 9th, 1841; became surgeon Oct. 14th, 1851; surgeon-major April 9th, 1861; and retired as inspector-general June 27th, 1868. He served with Havelock's column in the action of Mungarwar, attack and capture of the Alumbagh, the assault and relief of the Residency of Lucknow and its subsequent defence, and was wounded (grant of a year's service). He was present with Outram's Division throughout the occupation of the Alumbagh and also at the capture of Lucknow by Lord Clyde, and the subsequent campaign in Oude, including Buxar Ghat and Doondiakera (medal with two clasps).

South African War Notes.

Lieutenant P. G. Stock, R.A.M.C., is reported dangerously ill with enteric fever at Charlestown (May 26th).

Major Thomas, R.A.M.C., has left England for the seat of war in charge of a large draft of non-commissioned officers and men of the Royal Army Medical Corps.

The Royal Albert Hospital, Devonport.

The recent bazaar held in aid of the funds of this hospital realised over £700, and after paying expenses leaves £635 for the benefit of the funds of the institution.

Captain F. E. Gunter, R.A.M.C., has been granted a gratuity of £250 yearly by the Government of India on account of an ailment contracted by him in the performance of his duty in August, 1897.

Lieutenant-Colonel W. Johnston, who has been for over a year officiating as Assistant Director, A M S, has retired from that hospital

Major G H Barefoot, R A M C, and Lieutenant McGregor, R A M C, have been appointed principal medical officer and assistant principal medical officer respectively at the Royal Military Tournament

Correspondence.

"Audi alteram partem."

THE NATIONAL HOME READING UNION.

To the Editors of THE LANCET

SIRS—Had it not been for the war in South Africa and the great national bereavement there can be little doubt that the celebration of the millenary of King Alfred's death would have been one of the most notable events of the year Yet although the celebration cannot now attain to the importance as a national festival which its promoters originally contemplated, no passing events can rob it of its significance, nor is the city of Winchester, in which the representatives of universities and learned societies will shortly assemble, any less interesting as the capital of the great king Its thousand years of association with his name and fame make it in a peculiar sense the birthplace of English national life, and its abundant historic monuments mirror the successive developments of this life with very singular fulness Will you allow me to call the attention of your readers to the summer assembly which the National Home Reading Union has arranged to hold at Winchester from June 22nd, when the Mayor has kindly promised to welcome the visitors until June 29th, when the members of the assembly will disperse, visiting Athelney, King Alfred's refuge in his darkest days, or Wantage, the scene of his decisive battle with the Danes, on their way to their respective homes? During the week lectures will be given by Dean Stubbs, author of "God's Englishmen the Prophets, and Kings of England", the Bishop of Bristol on "King Alfred [illegible] Professor Skeat, [illegible] Edward VII", [illegible] ng of the West [illegible] nchester Cathedral', Mr N C H Nisbett, on "Wolvesey Castle", Dr T J Lawrence, some time deputy Whewell Professor of International Law at Cambridge, on "Alfred as Statesman and Lawyer" (four lectures), Mr Philip Wicksteed, on "Alfred as a Man of Letters" (four lectures), Mr J E Marr, F R S, Sec G S, on "The Application of Geology to Scenery" (four lectures); and others

The course last named indicates a secondary purpose of the meeting—namely, the study of the geology and botany of the district as well as its archæology The afternoons of the assembly will be devoted to visits to the places and [illegible] the great king's fame, as well as [illegible] morials of mediæval times with [illegible] ds such, for example, as the [illegible] Hyde Abbey, and the Hospital of St Cross where the "Wayfarer's Dole" of bread and beer is still given to strangers who ask it The assembly is open to all who obtain tickets from the Secretary, National Home-Reading Union, Surrey House, Victoria Embankment, W C

I am, Sirs, yours faithfully,

ALEX HILL,
Master of Downing College, Cambridge.

Surrey House, Victoria Embankment, London, W C,
May 22nd, 1901

"HÆMORRHAGIC TYPHOID FEVER"

To the Editors of THE LANCET

SIRS—Having once attended a case of hæmorrhagic disease I am inclined to think with Dr Eshner that its pathology more often points to a degraded state of the blood and blood-channels than to the toxic effect of alcohol or, indeed, any other condition The case was one of small pox and the horrible appearance of the body both before and after death is an experience not easily forgotten The whole surface of the body was of a blue or rather prune juice colour There was a very low temperature and death took place in something under two days He was a quiet, respectable man and had no history of either alcoholic or other excess On account of the panic raised in the place we buried him in the dead of night under, I must say, rather [illegible] Mr George Ormsby, now of Runco, [illegible] in the case, I have no doubt [illegible] or it was of a very startling character and one not often coming within the ken of even the busiest practitioner

I am, Sirs, yours faithfully,

Kettering May 25th, 1901 **JAMES MORE**

"LOCAL *v* GENERAL ANÆSTHESIA IN CERTAIN CASES OF ABDOMINAL SURGERY."

To the Editors of THE LANCET

SIRS,—Mr T. H Morse's remarks in THE LANCET of May 11th, p 1322, raise the interesting question of shock in cases of abdominal operations and the part, if any, which anæsthetics play in producing shock Few surgeons, I imagine, certainly few anæsthetists, will agree with Mr Morse in placing the anæsthetic first as a cause of shock It is open to doubt whether there ever is a patient on whom it is safe to operate but whom it is unsafe to anæsthetise To begin with, death from shock of operation was no unknown thing before the introduction of anæsthetics, but death from shock due to an anæsthetic alone, other than chloroform, is so far, I believe, unrecorded Therefore we know that operations alone can kill by shock, we have no evidence that ether alone can do so Again, it is, as your correspondent Dr S H Long[1] points out, not uncommon to administer anæsthetics to a collapsed patient and to notice the general improvement of circulation and improvement under the influence of the anæsthetic The main factors, I believe, in the production of shock are the severity of the operation and the time taken in its performance It is only by dulling the surgeon's appreciation of the value of rapidity in operating that anæsthetics can be blamed for the production of shock Since the introduction of anæsthetics surgeons have naturally become more indifferent to the length of time which they occupy in performing operations, yet this has a most important bearing on the patient's chances of recovery The anæsthetic chosen also, no doubt, makes a difference. Chloroform by the lowered blood pressure it induces probably adds to the facility with which shock may be produced. Ether, on the other hand, will often render operation safely possible on a patient who might otherwise succumb from shock Long administration of ether probably adds to the chance of the patient's dying after the operation when reaction from the too prolonged stimulation sets in That is another matter and is avoidable by proper discrimination in using anæsthetics The danger of inhalation of vomit which Mr Morse refers to is completely avoidable by proper washing out of the stomach before operation and if necessary again later This can easily be performed while the patient is anæsthetised without prolonging the anæsthesia, as I have pointed out[2] In the abdominal operations which I have seen performed under local anæsthetics though no pain was felt the reflex effects of manipulation of abdominal contents were enough to impede the surgeon and to distress the patient, and shock was certainly no less than it would have been under general anæsthetics properly chosen and administered To what extent the chance of shock varies with depth of anæsthesia is uncertain, but whether shock is less likely under deep anæsthesia or under light, at any rate evidence seems to show that shock is less likely under general anæsthesia suitably produced and maintained than altogether without it

I am Sirs, yours faithfully,

Sloane-terrace Mansions, S W, May 23th, 1901 **J BLUMFELD**

"THE METROPOLITAN WATER-SUPPLY."

To the Editors of THE LANCET

SIRS,—Will you allow me to point out, in connexion with your annotation on water supply in THE LANCET of May 18th, that the figure quoted for filtration—viz, 1 12 gallons per square foot per hour—is the least rapid instead of being, as stated, the most rapid of all the companies, and that the use of such language as "the dirtiest water" is not justifiable, considering that the differences in colour, like those in analysis, are in measurements absolutely unappreciable except by scientific method. I inclose the official report for March and remain, Sirs,

---

[1] THE LANCET, May 25th, 1901 p 1493.
[2] THE LANCET, Sept. 23rd, 1899, p. 833

Yours faithfully,
J. GOODWIN, Secretary.

Grand Junction Waterworks Company, South Molton-street, London, W, May 22nd, 1901.

⁂ We much regret that through an unfortunate oversight we stigmatised the figure quoted for filtration of the Grand Junction water (namely, 1·12 gallons per square foot per hour) as "the most rapid of all the companies." As a matter of fact, the rate is the least rapid. But it is not correct to say that "differences of colour, like those in analysis, are in measurements absolutely unappreciable *except by scientific method*." The dirty colour of the water supplied by some of the metropolitan water companies can frequently be detected by the simple method of inspecting it in a glass water-jug or tumbler. Anyone who is supplied by the Lambeth, the Southwark and Vauxhall, or the Grand Junction Companies can easily satisfy himself on this point by examining the water which he receives after the Thames has been in flood for a few days. Dirt has been defined as matter in the wrong place, and the matter which causes the brown tint is decidedly out of place in drinking-water. The word dirt is accurately applicable to the matter which is brought down by the Thames water when the river is in flood, and which, when not removed by the process of sedimentation and filtration by the water companies, is supplied by them in the water which they distribute to their customers. In the case to which the secretary refers, in which brownish water was distributed by the Grand Junction Company, it is evident that the failure to purify the dirty Thames water was not due to hurried filtration, as we had previously assumed in error; it must therefore have been due either to some other error in the process of filtration or to the fact that the storage reservoirs are totally inadequate to allow a sufficient time for the preliminary process of sedimentation.—ED. L.

"LEGISLATION AGAINST NATIONAL INTEMPERANCE."

To the Editors of THE LANCET.

SIRS,—It would be highly interesting to learn exactly what are Dr. Archdall Reid's real views respecting the relations of his theory of alcoholic immunity to Weissmann's speculation. In one case he appears as a Weissmannian out and out; in another he figures as an opponent of the view that it is the germ plasm alone which can transmit features from one generation to another. Might I recommend to those of your readers interested in the question of heredity a perusal of two works which will show them how very far from being accepted by biologists are Weissmann's views. The one is a little book by Hertwig, "The Biological Problem of To-day" (Heinemann), the other, Cunningham's translation of Eimer's "Organic Evolution" (Macmillan). Herbert Spencer has declared himself dead against Weissmann's views. His pamphlets are published by Williams and Norgate. If Dr. Reid (or anybody else) is going to build up a serious theory of heredity with Weissmannism as its basis, I warn him that he is constructing a house of cards and nothing more. Cunningham well asks: "Is there any criterion by which we can distinguish among variations appearing *de novo* at a post-embryonic period of life, those which are acquired, and those which are due to variations of the germ plasm? There is none, and therefore it would be as true to assert that there is no evidence of the inheritance of any individual variations as to say there is no evidence of the inheritance of acquired variations." This is a sufficient answer to Dr. Reid and others who desire to lay the whole burden of proof that acquired variations can be inherited upon us. There is evidence, only they will not study it, as far as I can observe. What we of the neo-Lamarckian school believe is not that all acquired variations can be or are inherited, but that such variations may be inherited. The first difficulty of the Weissmann theory is to show that the germ plasm is really separate from, and independent of, the body of which it forms part. I have been looking for years for evidence of this fundamental proposition of the theory. It has not yet been supplied. That is why all the rest of the superstructure is in a highly rickety state. Hertwig's account of the experiments of Wilson and others on division of the eggs of echinoderms and frogs and the subsequent results of the development of the embryos give the death-blow to the notion that the germ plasm is one thing and the body plasm another. Dr. Reid will find a fuller account of such experiments in Wilson's large book on the "Cell" (Macmillan). One last point. Weissmannism applies itself to explain the continuity of amœba plasm, equally with the germ plasm of man. Now Vöchting, cutting a piece out of the middle of a thallus of Lunularia vulgaris, chopped it up with a knife into pulp. Spread on moist sand, the pulp gave origin to any number of young fronds. Is there any distinction between germs and body plasm, then, in lunularia? I trow not; and if not in lunularia, then the theory of Weissmann cannot hold good for all organisms. It is cases like this one which, to my mind, reduce Weissmann's doctrine itself to a mass of illogical pulp. I see that Dr Reid is to deliver a series of lectures on "Heredity" in Edinburgh. They are sure to be interesting and I hope he will publish them to enable us to understand his real relation to the biological theory under discussion. All I can say is that if no acquired characters can be inherited evolution becomes a mere farcical speculation, inheritance a theoretical fable, and all social reform, not to speak of medical teaching, a vain thing. I am, Sirs, yours faithfully,

Edinburgh, May 25th, 1901. ANDREW WILSON

THE COVENTRY PUBLIC MEDICAL SERVICE.

To the Editors of THE LANCET.

SIRS,—The ninth annual meeting of the Coventry Public Medical Service has just been held and the reports show a steady increase in membership. The number on the books is about 9000 and the collections for the year amounted to £1835 12*s*. There are 11 medical men on the staff who have the management entirely under their own control. It has been established on the wage basis principle and, broadly speaking, it works with success. This is the largest agency, we believe, under professional control for administering medical relief to the working classes and our experience on the wage limit question ought to be of some use to the profession at large We have proved by a practical working scheme how it may be carried out. There is no absolutely perfect plan by which dispensaries or other institutions can be managed Under any arrangement abuses will creep in, and although we do not adopt any strict detective system we do claim that under our system abuses are reduced to a minimum. Occasionally people are admitted whose incomes are above our limit, but we are always able to detect gross cases of abuse, and, approximately speaking, we enrol only the class of people for whom the service is intended. We have established a scientific branch for discussing questions of a medico-chirurgical character to which all eligible medical men in the neighbourhood are invited.

I am, Sirs, yours faithfully,

May 26th, 1901. W. RICHARDSON RICE, M.D. Dub.

"NEW YORK INSTITUTE OF SCIENCE."

To the Editors of THE LANCET.

SIRS,—Copies of the inclosed circular are being sent broadcast over this country, and judging from the number of letters I have received on the subject I fear they are having the effect anticipated by the senders—the exploitation of the British public for the benefit of an unscrupulous set of adventurers. My name is mentioned in these papers as practising hypnotism, and therefore, as it were, giving support to this institute; hence the inquiries like the one inclosed addressed to me. I need hardly say that I know nothing about these people. The more we know about hypnotism and the greater our belief in it as a therapeutic agent in competent medical hands the less likely are we to approve of this wholesale method of encouraging the use of hypnotism by the general public. I have seen the course sent to inquirers on paying five dollars. The fee is exorbitant for the information given, but the teaching inculcated is, I consider, fraught with danger to public morality.

I fear this unscrupulous exploitation of hypnotism will lead to the occurrence of such crimes against the person and pocket as are described in your annotation in THE LANCET of May 18th, p. 1419, "Suggestion and Hypnotism in their Relation to Jurisprudence," on Dr. von Schrenk-Notzing's article. It is to be hoped that medical men everywhere will lend their influence to counteract the work of this bogus institute.

I am, Sirs, yours faithfully,
CHARLES LLOYD TUCKEY, M.D. Aberd.
Park-street, W., May 26th, 1901.

*** The circular justifies Dr. Lloyd Tuckey's description of it as "unscrupulous exploitation of hypnotism."—ED. L.

"THE MEDICAL PROFESSION AND THE FRIENDLY SOCIETIES."

To the Editors of THE LANCET.

SIRS,—I cannot altogether agree with "Colliery Surgeon's" letter. I am of opinion that if friendly societies paid 4*s.* per annum for adult male members and 5*s.* for juveniles and female adults the friction between the friendly societies and their surgeons would at once cease. This is really the cause of dispute. Surely this sum is a reasonable one. The difficulty we have to contend with is that friendly societies insist on our acceptance of a halfpenny a week for juveniles and 3*s.* 6*d.* or 4*s.* for female adults. This is not a living wage and is the bone of contention between the profession and the friendly societies. The Long Eaton (Derbyshire) friendly societies intend to start an institution, and to give an instance of the determination and unanimity of the club officials interested in the promulgation of the scheme they have decided to have a house-to house canvass and to petition Sir Walter Foster to support the scheme. Mr. Gretton, M.P., has also been written to on the same question—viz., "Is it advisable to establish a friendly society's dispensary?" This means that in a town of 10,000 about 2500 belong to clubs, and if an institution of this kind is established all the married adult lodge members will put their wives and children in, thus increasing the number of dispensary members so considerably that of the eight town practitioners three or four will have to seek fresh fields and pastures new, for one man will have a fixed salary with free residence and have to do the work of two or three men. The general medical practitioner with clubs is better qualified to speak on this question than any member of the General Medical Council, the members of which have very probably never had a club appointment of any kind. It is only in places where the clubs have refused a fair fee that these institutions have been started.

I am, Sirs, yours faithfully,
Derby, May 12th, 1901. W. H. JACKSON, M.B.

TEMPORARY ARMY RANK FOR VOLUNTEER OFFICERS.

To the Editors of THE LANCET.

SIRS,—Perhaps Mr. MacNeill or one of the service Members would, at the earliest opportunity, ask Mr. Brodrick if, in view of army order dated May 15th, 1901, wherein temporary army rank is conceded to militia officers employed during the present emergency, a like privilege will be accorded to other auxiliary officers—viz., volunteer officers, combatant and otherwise, "doing duty with troops." Such a concession should at least be granted to those officers holding commissions in the Reserve and Army Medical Reserve; at any rate, they should be allowed seniority from the date of their reserve commissions. If it is just and necessary to grant temporary army rank to volunteers serving abroad it is equally just and necessary to do so for home service; and, further, if in view of the withholding of the gratuity to which they are entitled at the end of 12 months' service, until their services are dispensed with, any grant is likely to be made for "wear and tear" of uniform. Undress uniform, which in the ordinary course of volunteer duties lasted for years or even perhaps for the whole of a volunteer career, is now worn and dirty and must be replaced.

I am, Sirs, yours faithfully,
V. M. S.
May 25th, 1901.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Decline of the Plague in India.—Disturbances in the Punjab.—The Increase of the Famine.—Fresh Hospital Accommodation in Calcutta and Darjeeling.

THE decline of plague is not general throughout India although the total mortality was 3298 as compared with 4093 last week. The number of deaths is nearly double that for the corresponding week last year. The deaths last week fell in Bengal (districts) from 1707 to 1198; in the Punjab from 547 to 524; in the North-West Provinces from 424 to 287; and in Calcutta from 215 to 156. On the other hand Bombay city shows a rise from 393 to 419, Karachi city from 270 to 297, Kashmir (Jumma) from 23 to 46, and Gaya from 320 to 518. The disease still lingers in the districts of the Bombay province—Belgaum, Dharwar, Thana, and Cutch, as well as in the Mysore State. There have been 12 deaths from plague in Agra. This is a new outbreak and it shows how the disease is gradually diffusing itself over the whole country. A recrudescence of plague in Bombay city seems to attain a greater height, to last longer, and to subside more slowly than in any other city. The general mortality in Bombay keeps up at the rate of over 90 per 1000 per annum. Out of 1390 deaths for the week ending April 30th 403 are recorded as due to plague. Deducting this number from that of the general mortality it would still show Bombay with a death-rate of over 64 per 1000 per annum. As there is very little cholera or small-pox in the city, the excess mortality is imperfectly accounted for.

In the plague stricken villages of the Sialkot district of the Punjab there have been serious disturbances and troops have had to be despatched to them. The hospital assistants suffered severely at the hands of the mob and the Naib-Tahsildar was beaten and his thatched huts were ignited. No Europeans were attacked except the assistant commissioner who was pelted with stones and mud. Punitive police will now be placed in the district.

The latest famine returns show that there are still nearly 300,000 persons on relief and the numbers have been increasing lately in the Bombay Presidency. In the native States there are 30,000 and in Hyderabad Deccan about 25,000.

With the increasing popularity of Darjeeling as a hill station and health resort additional provision has to be made for the sick. A new surgical ward has been added to the Eden Sanitarium "for the separate and special treatment of serious surgical, medical, and obstetrical cases demanding operation and special nursing." The new block of the Presidency General Hospital in Calcutta ought also to be ready in a short time. It is intended primarily to afford medical aid and accommodation to well-to-do middle-class European inhabitants of Calcutta, and to planters especially.

May 9th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Hospital Saturday Fund.

THE annual meeting of the Executive Committee was held on May 20th. The report showed that the total receipts in respect of last year's collection were £18,280 7*s.* 10*d.*, of which sum £17,874 1*s.* 7*d.* were received from manufactories and industrial establishments. This showed an increase over the previous year. The expenses of collection amounted to 4·69 per cent.; the number of establishments contributing was 1802. Of the amount collected £10,000 were distributed among the medical charities of the city. Four convalescent homes were associated with the movement, being supported by these funds.

Report of the Medical Officer of Health.

The annual report on the health of the city for the year

1090 has just been issued by Dr. Alfred Hill. Some interesting details are given at length. The sanitary questions discussed in the report relate to the reforms required, to those already accomplished, and to the possibilities of increased action in the future. One fact is made evident—that the death-rate of the city is too high, being above the average for the last 20 years. Inquiry shows that this is mainly due to long-standing causes, among which are overcrowding and the existence of insanitary conditions in the poorer dwellings; it is demonstrated that in six of the wards the death-rates are considerably in excess of the rate for the city as a whole. Dr. Hill, however, justly remarks that while many of the older houses are unfit for habitation it is undesirable to close any large number of them until suitable new houses have been erected. Much has been done by the Health Committee in cleansing courts, improving drainage, and generally diffusing knowledge of the laws of health among the poorer classes, and efforts continue to be made to keep the public attention directed to the subject. In a previous communication mention was made of a threatened action for libel upon the chairman of the Health Committee in connexion with some articles published in the *Birmingham Daily Gazette* upon the slum question. It is now stated that a writ has been issued claiming damages for libel against this paper. Counsel have been retained on behalf of the plaintiff, Alderman Cook, chairman of the Health Committee.

Adulteration of Butter.

At the police-court recently certain tradesmen were summoned for selling butter containing 70 grains per pound of boric acid and at least 6 per cent. of water in excess. It was stated that the butter came from Australia and was then dealt with by some operation of the defendants. The question of excess of moisture has been raised before the Longton stipendiary who refused to state a case. In this instance the case was adjourned pending an appeal.

General Hospital, Birmingham: Past and Present Residents' Club.

A most successful dinner of past (since 1891) and present residents of the Birmingham General Hospital was held at the Great Western Hotel on Friday, May 10th, 46 attending (including late "residents" from Edinburgh, Leeds, Manchester, Derbyshire, Hereford, and London), while 26 others wrote expressing approval. Dr. T. Sidney Short occupied the chair. It was decided to form a club of all residents since January, 1891, to which all past and future residents would be admitted on application. An annual dinner is to be held in April or May. All past residents of the "General" wishing for further information are invited to communicate with the secretaries, Dr. W. J. McCardie, 54, Newhall-street, or Mr. Howard J. Collins, General Hospital, Birmingham

May 28th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Liverpool and District Branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis.

A MEETING of the executive committee of the above branch was held on May 23rd at the Medical Institution under the presidency of Mr. Edgar A. Browne. The chairman said that they were all agreed as to the object of the parent association in London, which was primarily the prevention of consumption. Those of them who belonged to the medical profession could now assure the general public that consumption was a preventable and transmissible disease, and that if they could only follow the teachings of science and use such precautions as the medical profession were able to suggest that which some quarter of a century ago was regarded as a disease inherited from the parent by the child, and as handed down from generation to generation, had now been proved to be as easily preventable as any other contagious or noxious disorder. Moreover, it had been discovered by the exercise of common sense as well as by the exact modes of observation which now existed that in many cases of consumption the patients made exceedingly good recoveries. The methods by which they proposed to reach the masses were by the education of public opinion, by means of lectures given by medical men of known standing and approved by the committee, and by the distribution of various kinds of useful literature. They also wanted to invite the coöperation of the municipal bodies of the towns. He might say with some satisfaction that there had been no necessity for them to invite the cooperation of the municipality of Liverpool. The Health Committee, the ex-Lord Mayor (Mr. Cohen), and the medical officer of health (Dr. E. W Hope) had thrown themselves into the movement with enthusiasm; they had been leaders in the work and there was no town in the whole kingdom which had made such practical progress in the matter as had Liverpool. Two large sanatoria were in course of erection in healthy neighbourhoods in the vicinity of the city. One, containing 60 beds, was being erected near Delamere Forest by private subscription and was intended for the treatment of early cases of consumption amongst the working-classes. This, it was hoped, would be ready for occupation in a few months. The second sanatorium was being erected on the banks of the river Dee, near Heswall, for the treatment of early cases amongst the poorer classes. The Health Committee had also adopted a new system of voluntary notification of consumption and they had also established depôts for sterilised milk. The demolition of insanitary property and the erection of better houses for the poorer classes were also means adopted by the corporation for the prevention of this fell disease. Sir John Willox, M.P, was appointed to be the chairman of the Liverpool branch of the association and Dr. William Carter was elected to the vice chair. Sir John Willox, Dr. William Carter, Dr. E. W. Hope, Dr. James Barr, Dr. T. R. Bradshaw, Dr. Nathan Raw, and Councillor Shelmerdine were chosen to represent the branch at the national meeting to be held in London in July.

The David Lewis Northern Hospital.

The vacancy at the David Lewis Northern Hospital caused by the resignation of Dr. Edward H. Dickinson is exciting much interest and will be keenly contested. The election, which is fixed for June 4th, will be made by a committee comprising 150 trustees of the charity. Dr. Dickinson was formerly lecturer in comparative anatomy and zoology at the Royal Infirmary School of Medicine prior to its incorporation with University College and was exceedingly popular with the students. He also took a great interest in the deliberations of the British Medical Association as a member of council. His resignation is much regretted by his colleagues, especially as he has not yet reached the specified age of retirement.—Mr. Benn W. Levy, with characteristic liberality, has offered to present the David Lewis Northern Hospital with the apparatus for the light ray treatment of lupus (Finsen). It is estimated that the cost of installing one lamp supplying four telescopes, together with the necessary accessories, will be about £1200. Mr. Levy has also undertaken to defray the expenses involved in working the telescopes during the space of a year.

The New Foundations in the School of Tropical Medicine.

The "Walter Myers Chair of Tropical Medicine," recently founded in commemoration of the late Dr. Walter Myers, has been bestowed upon Major Ronald Ross, F.R S., late I.M S, the lecturer on tropical medicine. Dr. J. E. Dutton has been appointed to the "Walter Myers Fellowship in Tropical Medicine," an institution which has been endowed for five years.

The Medical Faculty of University College, Liverpool.

The winter session of the Medical Faculty of University College will be inaugurated on Oct. 12th, when the opening address will be delivered by Dr. Oliver Lodge, F R.S, the principal of Birmingham University, and until recently the professor of physics at University College, Liverpool.

May 28th.

WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

Housing of the Poor in Bristol.

THERE was established in Bristol a few years ago a committee for promoting the better housing of the poor, and it has quietly accomplished a great deal of good, principally in the way of obtaining the repair of dilapidated cottages or the closing of those which were beyond repair. At the annual meeting of the committee held on May 24th Mr. Lewis Fry raised a warning note with regard to the provision by municipalities of working class dwellings the rentals of which were not sufficient to pay the interest and repayments upon the original outlay It was a question, he said, whether they might not create a privileged class who would hold their dwellings at a low rental by the taxation of the whole community, and that possibly that class might be banded together and use their votes simply to protect themselves Mr Fry further deprecated the driving of private and voluntary enterprises out of the field The housing of the working classes is not quite so simple a matter as some ardent reformers would have us believe

Hospital for Pontypool.

Pontypool is the centre of a mining population approaching 50,000 in number and is situated in one of the Monmouthshire valleys, which is increasing almost as rapidly as some of the Glamorganshire colliery districts The nearest accident hospital to Pontypool is at Newport, and to this institution patients have to be taken a distance of some 12 or 15 miles, so that it is hardly surprising to find that there is a movement to establish a local cottage hospital. The initial steps were taken several months ago and the promoters have succeeded in obtaining as a free gift a freehold site of two and a half acres A bequest from the late Mr Cosslett of Bristol of £1000, with an annual grant of £100, has been secured. Yearly subscriptions amounting to about £700 are promised, while the workmen have agreed to contribute 1*d* weekly and the colliery proprietors offer another 1*d* per week for each man employed by them. The scheme is therefore well on the way towards realisation and plans have been prepared for a building with accommodation for 20 beds Although colliers as a class are somewhat averse to being treated in a hospital—or, perhaps, it would be more correct to say that the collier's wife *does* not like her husband to go to a hospital—it has been found that this aversion speedily disappears in those localities in which hospitals have been established, and at Aberdare, Mountain Ash, Porth, and Bridgend the accident hospitals are of immense service to the inhabitants

Refuse Destructor for Taunton.

The corporation of Taunton have led the way in so many municipal enterprises that a refuse destructor might be expected to be already installed in the town The first step towards the erection of what is considered an essential to the proper equipment of a public health department has now been taken and the Local Government Board have been asked to sanction the expenditure of £4500 upon a destructor to be erected at the sewage works. Taunton was the first municipality in England to establish electric lighting works, and at the present time extensive alterations are going on at the sewage works to adapt the mode of treatment to the septic tank method

Ambulance Arrangements at the Royal Agricultural Show.

One of the features of the Eisteddfodau which are held in different parts of Wales has of late years been the ambulance competitions and the instruction in first-aid provided in the technical instruction classes organised by several county councils The Glamorganshire County Council give special encouragement to this subject and every police-constable is expected to obtain a certificate of competency It appears, however, that at Cardiff, although classes have been held yet no distinct corps has been formed and the ambulance arrangements in connexion with the Royal Agricultural Show to be held in June at Cardiff have therefore been entrusted to 50 men from the Bristol corps

The Prevention of Tuberculosis

A largely attended meeting was held at the Weston-super-Mare Assembly Rooms on May 21st, under the auspices of the National Association for the Prevention of Consumption and other Forms of Tuberculosis. The Rev. Prebendary de Salis, rector of Weston, presided, and was supported by the majority of the members of the medical profession in the town and several others, including Colonel Bramble, Captain Phelp, and Mr. J. Cook Interesting addresses were delivered by Dr Lionel A. Weatherly (Bath) and Dr H S Ballance (the local honorary secretary) A resolution was unanimously passed recognising the urgent need of a sanatorium for the poorer classes of sufferers from consumption in Gloucester, Somerset, and Wilts, and promising to help forward the scheme by assisting to raise the necessary funds

Society for the Prevention of Cruelty to Children

The annual meeting of the Bristol and District branch of this society was held on May 21st The report stated that 553 complaints of cruelty to children had been investigated; this number was 107 in excess of those for the previous year, the increase being chiefly due to cases of indecent assault, neglect, or starvation Of the 553 cases 13 were not well founded, in 422 warnings only were issued, in 109 prosecutions were instituted (103 convictions being obtained), and nine were otherwise dealt with The financial statement was satisfactory

May 27th

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Plague in Scotland.

THE Local Government Board of Scotland have just issued a memorandum with respect to plague in which it is stated that, in view of the possibility of the introduction of plague into Scotland, the Board will assist in the identification of the disease In suspicious cases on board ship or in the earliest suspected case or cases newly developing in any district the Board have arranged for bacteriological testing, without cost to the local authority, of material from such cases This material can be received only from the medical officer of health With the memorandum are sent directions for obtaining and forwarding for bacteriological examination material from suspected plague cases which have been drawn up with the assistance of the Council of the Royal College of Physicians of Edinburgh The opportunity is also taken in the memorandum of reminding medical officers of health of the peculiar facility given for the importation and dissemination of plague by the circumstance that it affects the lower animals and most especially rats, mice, and by natural sequence cats, and of the inquiries which ought therefore to be made as to evidences of diseases among those animals on board ship and the special importance of measures for their extermination

Glasgow University

The programme of the arrangements in connexion with the celebration of the four-hundred and-fiftieth anniversary of the founding of Glasgow University is fairly well completed and the official proceedings are now practically fixed. On June 12th the ceremonies will be inaugurated by a commemoration service in the Cathedral and in the afternoon of the same day the Right Hon. the Earl of Stair, K T, the Chancellor, and Principal Storey, the Vice-Chancellor, will hold a reception in the Bute Hall, when the various delegates will be introduced and numerous congratulatory addresses will be presented; the evening will be occupied by the students' gaudeamus and by an "at home" in Queen Margaret College. The forenoon of the 13th is set apart for two orations on famous men formerly connected with the University—the one on James Watt, who did some of his most important work at the old college, by Lord Kelvin, and the other on Adam Smith, who was for a period of 15 years a professor in the University, by Professor William Smart, who is the first occupant of the chair of political economy. Following these orations there will be a graduation ceremony at which numerous honorary degrees will be conferred. On the afternoon of the 13th the new botanical laboratories will be opened by Sir Joseph Hooker, F R S, and there will be a garden party in the grounds of Queen Margaret College; in the evening a conversazione will be held in the University buildings at which some 2000 guests are expected The last day of the ceremonies, June 14th, includes an oration by Professor John Young, M D, on William Hunter, the founder of the Hunterian museum, a reception of the delegates in the art galleries and exhibition grounds, and in the evening a banquet given by the corporation and a students' ball at the University For the convenience of delegates and guests several excursions on the Firth of Clyde have been arranged for the day after the close of the official ceremonies A sketch of the history of the University has been prepared by Mr Coutts, the assistant clerk of Senate, and, as already announced, "The Book of the Jubilee" has been published.

by the Students' Celebration Committee. To this Lord Rosebery, as Lord Rector, contributes "A Foreword"; Principal Storey writes on "The Relation of Civic to Academic Life"; and Mr. Andrew Lang, as an old Glasgow student, contributes an article on "Glasgow in 1864." The poetry includes an ode in Greek by Sir Richard Jebb and an English ode by Sir Lewis Morris. The volume will form a welcome memento of a most interesting academic anniversary.

Glasgow Southern Medical Society.

At a recent meeting of this society it was resolved to send to the General Medical Council a formal statement of facts bearing on the practice of keeping open surgeries for the sale of drugs by medical men; to represent to the Council that this practice is distinctly conserved by the Pharmacy Amendment Act of 1869, and is in no way a breach of the law; and to urge that if an unqualified pharmaceutical assistant engaged in such a surgery and acting in opposition to his employer's instructions sells a scheduled poison this does not involve any illegal action on the part of the proprietor of the surgery. A petition defining the society's position in relation to the question at issue was read and approved.[1]

Glasgow Special Hospitals.

The annual meeting of the Glasgow Ear Hospital was held on May 24th. The medical report revealed a steady increase in the scope and usefulness of the institution. It is gratifying to observe that this increase extends not only to the number of the patients, but also to the clinical instruction given at the hospital. The students in attendance during the year numbered nearly 50 and as the patients' roll is close upon 1700 it is manifest that there are abundant opportunities for practical clinical study. It is proposed to enlarge the hospital by the acquisition of the adjoining property. The Hospital for Skin Diseases has also issued a satisfactory report. The new out-patients during the year numbered 1510 and the in-patients 109. The clinical classes were attended by 72 students and the resources of the hospital are also available for post-graduation study. The Duke of Montrose has consented to become patron of the hospital in succession to the late Duke of Argyll.

Glasgow Small-pox Epidemic.

The favourable reports which continue to be issued show that the outbreak is now practically at an end. A new case is an exceptional event and the number in hospital has fallen to 45. At a meeting of the town council on May 27th the minutes of the Health Committee contained a recommendation, based on the authority of the medical officer of health, that a new small-pox hospital should be erected and that the committee should be authorised to visit and to inspect sites suitable for this purpose. After some discussion this was approved. Some time ago a committee was appointed to consider the question of the re-organisation of the Health Department which, unless rumour is gravely at fault, has not for many months been altogether a happy family. It appears, however, that in consequence of the numerous engagements of the Lord Provost the committee has not yet been called together. An early meeting is now promised.

Tribute to a Paisley Practitioner.

Colonel Sir Thomas Glen-Coats, Bart., commanding the 2nd Volunteer Battalion Argyll and Sutherland Highlanders, has received the following letter from the front:—

> Camp, near Vryheid, Transvaal, April 8, 1901.
>
> SIR,—I trust you will excuse my writing to you, but I would like to bring to your notice the excellent work done by Dr. H. C. Donald, of Gauze-street, Paisley, while out in South Africa. He joined my regiment as its medical officer in the beginning of April, 1900, and only left it in the end of November, when he had his leg broken by a horse kicking him During that time he gained the complete confidence of all his comrades, both officers and men, by his care and his kindness to all our sick and wounded. He shared all our hardships, discomforts, and dangers with us, going into every fight with the regiment which we were engaged in. Not being a professional soldier, it is rather hard to mark one's appreciation of all he did for us in any public way, so I write to you, as commanding officer of his Volunteer battalion, to draw your attention to his good work and let you know how much we all appreciated it, as I feel sure you will be pleased to know of the good work of one of your officers. If you could do anything in the way of promotion for Dr. Donald I am confident of his deserving it fully and all his former comrades in South Africa would be very glad.
>
> I am, Sir, yours faithfully,
> H. P. GOUGH,
> Major Commanding Gough's Regiment Mounted Infantry.

May 28th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Cullen Case.

THE case of Mr. J. J. Cullen, the dispensary medical officer for the Castleknock district, including the prolonged legal conflict between the Local Government Board of Ireland and the guardians of the North Dublin Union, has now reached what promises to be its penultimate phase. At a meeting of the guardians held on May 22nd the chairman disclosed the result of an interview which took place recently between a deputation of the guardians and the Local Government Board in reference to Mr. Cullen. The terms agreed upon were that Mr. Cullen should resign and that no salary should be paid to him for the 12 months intervening between the issue of the sealed order and the present time; that a locum-tenent should be appointed for one month; and that an election of a medical officer should take place at the end of that period, the Local Government Board agreeing to sanction the appointment of Mr. Cullen if he should again be elected. A motion approving of these terms was adopted by 25 votes to seven.

The Death-rates of Dublin and Belfast.

Sir Charles Cameron has recently addressed an interesting letter to the Dublin daily papers in which he calls attention to the results of the census just published, which show that the population of Dublin was considerably under estimated, while that of Belfast was over-estimated. The recent death rates, being calculated on those assumed populations, showed Dublin in a more unfavourable, and Belfast in a more favourable, light than would have been the case were the actual numbers of the population known. Sir Charles Cameron observes that as Belfast has no township and corresponds practically to the Dublin metropolitan area the population of the latter still exceeds that of the former by 25,935.

Royal College of Surgeons in Ireland.

No less than 10 new candidates have offered themselves for election on the Council of the Royal College of Surgeons in Ireland at the ballot which will take place on June 3rd

Cottage Hospital for Larne.

Mr. Hugh H. Smiley of Larne has handed over to trustees the sum of £5000 to build and to endow a cottage hospital for Larne. These trustees have the entire responsibility of selecting a site, erecting the building, and arranging details as to management and terms of admission.

The Midwife Question at Caledon.

Dr. C. J. Clibborn (Local Government Board medical inspector) held a sworn inquiry at the Court-house, Caledon, co. Tyrone, last week in reference to the death of a woman at Cronghill, Caledon, on March 30th last, on whose body an inquest was held, when the jury found that "they attached no blame to the midwife, who had done all she could for the deceased according to her knowledge, and unanimously condemned Dr. Patterson for neglect of duty." A public meeting was held in Caledon to protest against the verdict and the Local Government Board of Ireland was requested to hold an inquiry. From the evidence it appeared that the husband of the deceased came for the medical man, Mr. R. D. Patterson, on March 29th, and although he had no "line" the medical man walked a mile to see the woman. On arrival he found only a little girl, 10 years of age, with the woman who was in an office house, made temporarily habitable, and with no fire. She was suffering from puerperal septicæmia and was in a dying condition, with a temperature of 102°F. and a pulse-rate of 120. The entire surroundings were filthy and the woman's clothes had not been changed nor had she been cleaned. The medical man said to the husband that his wife's condition was hopeless and that he would hold them all responsible. He gave medicines to ease the poor woman's pain. The midwife admitted that she had not changed any of the clothes from the date of the confinement (March 24th) until the death of the woman on the 30th. When asked why a medical man was not sent for sooner she said that that was for the friends to do, not for her.' She admitted that there was singing and drinking in the house on the night of the birth and on the following night. The husband said that he had left all to the woman who had attended his wife. It would appear also that the priest had been sent for to administer the last rites of the Church before the medical man was sent for. The decision of the Local Government Board will be given after some time

---

[1] The text of the petition is published on page 1543.

The Water-supply of Belfast.

Owing to the long-continued dry weather the reservoirs are down five feet six inches below the high water level The water commissioners, with the view of obtaining a temporary supply of water from the new Mourne scheme, have ordered the construction of a short temporary diversion channel in the Annalong valley to divert the water of the river into the pipes connected with the main conduit, as it will be impossible to have the permanent weir and other works completed in time to afford any relief during the present season. This temporary arrangement will be effected in a few weeks.

The Royal University Commission.

The report prevalent in Ireland for some time that the Government were finding great difficulties in the selection of men willing to act on the Royal University Commission has been confirmed by the statement which was made by Mr. A. J. Balfour in the House of Commons on May 24th, in reply to an inquiry by Mr. T. Healy, M P. Mr. Balfour was unable to give the names of the Commissioners. One of the reasons for the delay, he said, was the large number of Commissioners—Englishmen and Scotsmen—who have been asked to serve People engaged in education could not take evidence in Ireland after the beginning of an academic term. Another delay arises from the circumstance that an invitation is sent to a gentleman and he finds that he is not able to attend and then the invitation is sent to someone else. In these circumstances, said Mr. Balfour, delays are inevitable. The truth seems to be that the question is such a thorny one that few care to accept the position of Commissioner, as no matter what recommendations may be made as the result of the sittings of the Commission the most adverse criticism will come from one or other quarter in Ireland.

The Removal of Lunatics.

Mr. E S Finnegan, the coroner for the city of Belfast, appeared before the Poor law guardians of that city on May 21st, and having given illustrations of the present barbarous plan of removing lunatics suggested for their approval the following method Suppose a person was noticed to be of unsound mind, a relative or friend could go to the relieving officer of the district who would fill in a form provided for the purpose and direct the friend to get a medical man (if he could pay his fee, or, if not, a dispensary medical officer) to meet at the lunatic's house at some specified time. If the medical man, after examination, was satisfied that insanity existed a magistrate was to be found and brought to the house. A legal court would then be formed and the medical man in the presence of the magistrate, could sign the certificate in the proscribed form. The magistrate would then sign his certificate for the transfer of the patient, not to the workhouse but to the district lunatic asylum The patient was then to be taken to the asylum by a friend in a cab, and the resident medical superintendent had told him (the coroner) that he would admit every patient in whose case the various steps in the plan he had suggested had been carried out The coroner was thanked for his remarks It would appear that there are two methods by which patients in Ireland are admitted to public asylums. The friends finding a relative insane go to the asylum and procure a "house" form and get a medical man to fill it up But to do this he must state certain symptoms of insanity that he has personally noticed. In the case of dispensary patients, to save time and any risk of being blamed, the dispensary medical officer often sends the patient to the workhouse as a kind of half-way house, where there is plenty of time to investigate fully the question of insanity, and afterwards the patient can be transferred to the asylum. But there is another method—a most barbarous plan—by which, it is said, three fourths of the lunatics in Ireland are committed. Suppose a man shows signs of being a "dangerous lunatic," a relative makes a sworn information that he proposed to commit "an indictable crime" The police, acting on this affidavit, arrest the lunatic (often he is handcuffed, sometimes tied on a car) and drive him to a petty sessions or police-court, where before two magistrates he is charged and committed as a common criminal with the stamp of a criminal on him for all time, even if he recovers The magistrates then give an order for his admission to the nearest asylum. It is reported that neither in Great Britain nor in any other country do such an absurdly cruel and barbarous law and system prevail, and it is to replace this method that the Belfast coroner has suggested an alternative and more humane scheme.

Down District Asylum.

Mr. M. J Nolan, the resident medical superintendent, in his annual report, records that 500 cases were under his charge in the year ended Dec. 31st, 1900, for physical ailments, which gives a fair idea of the extent to which bodily disease is associated with mental disorder. A large proportion of the cases came from workhouses, often only when the decay and degradation of years required all the resources of an asylum In the meantime the entire burden of their cost of maintenance has been thrown on the union districts and the country at large has been deprived of the Treasury contribution of 4*s.* per week per head, since for want of due certification as lunatics they were denied the advantages of legal recognition. Recent legislation was provided for such long delayed recognition by the proposed establishment of auxiliary asylums, either as separate establishments or as departments of existing asylums, but the grant in such cases will be but 2*s.* per week per head. It is difficult to see why such a reduction should be made, as surely it is very often patients of this class who so largely tax the nursing staff and equipment of the asylum hospitals. There is something anomalous in the legislative philanthropy which doles out to the chronic harmless lunatic but a moiety of the State support granted to his more fortunate but dangerous brother.

May 28th

PARIS.

(FROM OUR OWN CORRESPONDENT.

Election of Dr. Laveran to the French Institute.

AT the Institute (Academy of Sciences) the election of a member in the section of medicine to succeed the late Professor Potain took place on May 20th. This election has given rise to very active wire-pulling in medical circles. The candidates were numerous and all of them were distinguished, the list being M Charles Richet, M. Cornil, M. Laveran, M. Jaccoud, M Lancereaux, M. Fournier, and M. Charrin. M. Charrin was chiefly supported by M. Bouchard, who is all powerful in the Section of Medicine in the Academy of Sciences; he was, in fact, placed first on the list which the section draws up in accordance with custom before the whole Academy proceeds to vote. M. Richet had the support of the old friends of his late father who was a member of the Institute. M. Laveran was supported by the members and friends of the Pasteur Institute; he came out at the head of the poll in the third voting after a very animated contest. M Laveran discovered the hæmatozoon of malaria, and his name has so often figured in the pages of THE LANCET that it would be superfluous to give details of his career It may be mentioned, however, that the greater part of his life has been spent as an army surgeon, and that notwithstanding his success as a *savant*—for he was professor at the École de Santé Militaire du Val de Grâce and a Member of the Academy of Medicine—his rise in military rank was surrounded with difficulties on account of the jealousy of his official superiors On his becoming a Member of the Academy of Medicine he was ordered to leave Paris and was appointed medical officer of the hospital in Lille He thereupon resigned his position in the army and quitted the service to join the Pasteur Institute.

"*Kleptomania*"

A Paris medical man practising as a specialist in mental diseases has just been the victim of a heartless trick which is not without its humorous side. One day he was consulted by a man of very distinguished appearance and giving a very aristocratic name, who said: "Doctor, I have come to ask you to cure my daughter of a terrible affliction She is a kleptomaniac and because of this we are heart-broken. I have brought her with me and she is here in the next room" The girl was then shown in and the medical man commenced treatment by means of suggestion which required several attendances. From the first, under the influence of her hysterical mania she every time carried away from the practitioner's consulting-room some small object which the father sent back next morning. The medical man ordered his servants not to pay attention to these eccentricities of the patient who, it was thought, would soon be cured, but one day she carried off a jewel-box of great value taken from an adjoining room into which she had been shown. The owner was not anxious at first, but the missing article was not returned the next day as the others had been, and the girl never came back. At last he sent to the address given by the aristocratic personage and then found that the address was false, and that he had been victimised by two rogues of exceptional craftiness.

A Proposed Leper Asylum.

At the meeting of the Academy of Medicine held on May 21st M. Besnier read a report on the proposal to establish a sanatorium for lepers in the commune of Ronceux (Vosges). This proposal, originated by M. Santon, has given rise to much opposition in the neighbourhood and the Academy had been requested by the Conseil d'État to advise upon the question. Provided, said the report, that sufficient hygienic precautions are taken, the risk of the spread of leprosy is far from being so great as seems to be supposed. Some of the Paris hospitals—the Hôpital St. Louis for instance—contain lepers, but extension of the disease has never been observed. There still are in France a few foci of leprosy not quite extinct; if a leper asylum were founded it ought to be in the neighbourhood of these foci of leprosy—on the Mediterranean coast for instance. From the humanitarian point of view it would be very useful; a leper asylum would render great services to patients who had contracted leprosy abroad. It ought to be a free sanatorium. A leper asylum does not form a danger to the neighbourhood, since if sufficient precautions are taken there is hardly any prospect of the disease spreading. Foreign authorities on leprosy do not think that the dangers of contagion are very formidable. Hansen states that at Bergen in Norway lepers move about freely beyond the limits of the asylum without extending the disease. At Christiania, a part of the country where leprosy rages, the disease does not occur in the vicinity of the leper asylums The sanatorium established in Prussia has not given rise to any inconvenience. Dr. Ehlers of Copenhagen is of opinion that leper asylums may disseminate the disease to some extent; they ought, therefore, not to be placed in districts free from leprosy. César Buuck also thinks that a leper asylum may be a source of danger. The committee advised the Academy to reply as follows to the questions put by the Minister of the Interior: 1. Under the conditions and with the reservations detailed in the report the Academy is of opinion that if placed as near as possible to a region where some lepers still exist a sanatorium for lepers would be of great utility. 2 Under the conditions and with the reservations aforesaid, if in a well-chosen and isolated situation, worked under strict regulations laid down by the sanitary authority and subjected to constant and effective supervision by the sanitary authority both within and without, a leper asylum ought not in the present state of knowledge to be a source of danger to the public health. 3 As the present state of the law in France does not render this supervision possible a committee nominated by the Academy would decide on the measures which ought to be taken in this respect. The conclusions arrived at in M. Besnier's report will be discussed at the next meeting of the Academy.

May 27th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Vegetarianism.

IN the Berlin Medical Society a lengthy debate arose lately on a paper read by Dr. Albu on Vegetarianism. He said that it must be ascertained (1) whether a person was able to live on a purely vegetarian diet and (2) whether this diet was advisable As to the first question he alluded to the observations of Professor Voit and Dr. Rumpf who found by experiments on two men, aged 28 and 19 years respectively, that in both there was nitrogenous equilibrium. He had himself investigated the phenomena of metabolism in a lady living for the last six years on a strictly vegetarian diet and whose health was perfect. The research was continued over five days, the food consisting exclusively of bread, fruits, nuts, and salad, and the result was that the nitrogen assimilated during this period showed an increase An exclusively vegetarian diet was therefore a practical possibility. Dr. Albu, however, said that in his opinion this diet was not advisable for healthy persons, because vegetable albumin was not so easily absorbed as animal albumin, and because a vegetable diet was too bulky and too monotonous. For invalids a vegetarian diet might, however, sometimes be in every way advantageous, not, however, in its strictest form, but combined with milk. The conditions in which such a diet was indicated were: (1) neuroses and neurasthenia; (2) nervous diseases of the gastro intestinal canal, but only for periods of from six to eight days duration; (3) chronic constipation; (4) general obesity; (5) gout; (6) neurosis of the heart and Graves's disease; and (7) Bright's disease. Contra-indications were afforded by all diseases of the gastro-intestinal canal and cardiac failure. Some persons had a marked idiosyncrasy the effect of which was that vegetables disagreed with them. The drawbacks of vegetarianism had been exaggerated by its adversaries. Dr. Albu had never observed either gastrectasia or dyspepsia or any other undesirable symptom.—In the discussion Professor Rosenheim said that although certain persons, such as peasants accustomed to it from their youth, might live on a strictly vegetarian diet it would be a different thing suddenly to change the food of a man who had been a meat-eater all his life. In these cases he had observed that the patients felt ill, and therefore when prescribing a vegetarian diet he had always for a long time recommended the addition of butter, milk, and eggs. In neurasthenia, gastric ulcer, and carcinoma this "lacto-vegetarian" diet proved valuable.—Dr. Schonstadt made a reference to the researches of M. Hofmann and Professor Rubner, the former of whom observed general debility and the latter gastro intestinal troubles as sequelæ of vegetarian diet. Vegetable albumin was of course not easily absorbed. To get the necessary daily amount of albumin from bread not less than 1740 grammes must be eaten. He mentioned that in the beginning of last century prisoners received an exclusively vegetarian diet, the result being an enormous morbidity and mortality, but as soon as mixed food was given the state of health in the prisons became normal. It was a mistake to suppose that there were nations which lived on an exclusively vegetarian diet, for they all took some animal food in addition to articles of vegetable origin.—Professor Fürbringer was of opinion that the instances in which vegetarians had beaten the record in athletic performances must be regarded as exceptions. He had never prescribed a strictly vegetarian, but always a lacto-vegetarian, diet, especially in sexual neurasthenia when too much animal food had been previously taken. In Bright's disease and in general obesity this diet was advisable; in gout, however, its utility was still doubtful. The human species belonged neither to the carnivora nor to the herbivora but to the omnivora.—Dr. Arthur Meyer said that he had lived as a vegetarian for a fortnight *experimenti causa* and his weight increased by 1 5 kilogrammes (three pounds and a quarter) during that time.—Dr. Hauchecorne gave interesting details with regard to vegetable-feeders among the lower animals He said that there were but few herbivorous animals, the majority being omnivorous. It was erroneous to suppose that for the lower animals flesh was the most suitable food in hot climates and vegetable products in cold climates. Herbivorous animals were, as a rule, not so intelligent as the carnivorous and the assertion that they were naturally of a quiet disposition was a mere fable —Dr. Albu, in replying, recommended the lacto-vegetarian diet for certain diseases

May 27th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Diversion of Blood from the Portal Circulation by Surgical Means.

AT a recent meeting of the Medico-Chirurgical Society of Bologna Professor Schiassi reported three cases in which he had diverted blood from the portal into the general circulation in order to relieve hepatic engorgement and the ascites dependent upon it The operation consisted in grafting the omentum or mesentery between the peritoneum and the abdominal muscles so as to establish anastomotic communication between their respective vessels. By this means excessive intravenous pressure in the portal system is relieved and it is thought also that a smaller amount of noxious matter finds its way to an over worked liver. Surgical interference Professor Schiassi considers to be indicated (1) in cases of passive hepatic congestion when ascites is beginning, (2) in cases of capsular cirrhosis before the growth of connective tissue has involved and damaged the liver cells; (3) in portal phlebitis; and possibly (4) in certain forms of biliary cirrhosis In each of Professor Schiassi's three cases there was cirrhosis with ascites, and the result of the operation was immediately successful, except in one case where a second grafting was required to supplement the first

Anti-malaria Campaign

The Italian Red Cross Society have succeeded in collecting by voluntary subscription the greater part of the sum necessary for renewing the summer campaign against malaria in the Agro Romano Some 5000 lire are still needed to make the scheme practicable, and an appeal for funds is being made to the Government by the society and others interested in the undertaking

The Use of Glycerine in the Preservation of Vaccine Virus

In the report of THE LANCET Commission on Glycerinated Calf Vaccine Lymph[1] it was stated that the discovery of the value of glycerine for the preservation of vaccine virus was due to Copeman, Chambon, and Saint Yves Menard According to Rossi Doria[2] this honour belongs to Professor Leoni, formerly director of the Vaccine Institute of Rome, who was the first to demonstrate that vaccine virus in the fresh state is contaminated by germs, among the most important of which are those of pus, and that these germs disappear in the lymph when it has been preserved in glycerine for a time—from three to four weeks—under certain conditions of temperature It is stated that the experiments determining this important fact were made by Leoni in 1889 and were published by him in the *Rivista d'Igiene e Sanità Pubblica*, and that Copeman's work dated from 1892 and that of Chambon and Saint Yves Menard from 1893

Congress of "Medici Condotti"

The second congress of "Medici Condotti" (district doctors) was held in Rome on May 5 h and the three succeeding days for the purpose of agitating for reforms in the conditions under which that hard working but ill paid class of medical men are now discharging their onerous duties It is two years since the first congress of the same kind sat at Como, and little or nothing has as yet been done towards ameliorating or removing their many grievances Of these there are especially two about which the loudest complaints are made—viz, the insecurity in the tenure of the office of the "medico condotto," and the power possessed by the communal councils of cutting down his salary at their discretion Resolutions were passed to the effect that after the lapse of the three years of probation prescribed by law for the newly appointed candidate he should be secure in his post, and that during the period of probation as well as afterwards the communal councils should not have the right of dismissing him except for some sufficient cause and with the consent of the Provincial Sanitary Council Further, the salary of the "*medico condotto*," once fixed, should not be subject to reduction It was also resolved that a month's vacation ought to be granted to him yearly, that a reduction should be allowed in his railway fares, and that after 25 years' service a pension should be granted to him without its being required that he should resign his appointment

The Controversy between Professor Grassi and Major Ronald Ross

The last issue of the Policlinico[3] contains the close of the polemic between Major Ross and Professor Grassi on the question of priority in the discovery of the extra-corporeal life cycle of the malarial parasite The controversy would appear to hinge upon a doubt as to whether or not a general statement admittedly made by Major Ross in the preface to the paper in which he first announced his success in cultivating malarial crescents in the mosquito applied to the particular insects in which he first observed the development of the pigmented bodies to take place To any impartial reader it will not appear in the least doubtful that the two specimens upon the fate of which so much scientific progress was to depend were really reared from the larvæ by Major Ross and had never been given the chance of disqualifying themselves for experimental purposes by indiscriminate draughts of forbidden blood Professor Grassi, however, insists that a special statement to this effect should have been made by Major Ross, and he takes advantage of an admission by the latter in a private letter to Dr. Charles to show that Major Ross himself is of the same opinion! But the criticism, even if it were justified by Major Ross's inadvertence, is a carping and unworthy one at this time of day when subsequent investigations have made it so clear that the bodies observed by him had without question the origin and nature which he claimed for them Fortunately for the discoverer no criticism can now rob him of the well-earned distinction of having been the first to find the road to the solution of the problem, although many, including Professor Grassi himself, may share with him the honour of supplementing and completing it

May 24th

NEW YORK.

(FROM OUR OWN CORRESPONDENT)

Withdrawal of the Anti Christian Science Bill.

THE Bell Bill which was drawn up and introduced into the State Legislature of New York for the purpose of placing Christian Scientists, osteopaths, and others who might be practising the healing art without being legally qualified to do so under the same restrictions as all who desire to follow the medical profession in New York State was overwhelmed by an avalanche of amendments which would have rendered its action as intended by its original promoters abortive. The Bill was consequently withdrawn, which under the circumstances was the best thing that could have happened. The amendments were found to be necessary for the passage of the measure on account of the strong opposition brought against it in its original form The result of this failure to restrain the quack element in New York State has proved beyond doubt that public sentiment is not favourable to restrictive Medical Acts and the numerous hearings given to the Bill, coupled with the sensational newspaper reports, have certainly helped, rather than hurt, the cause of the Christian Scientists and other divisions of what may be termed the illegitimate medical fraternity. The controversy over the Bill has raised in the minds of members of the legitimate medical profession grave doubts as to whether it is wise to control Christian Scientists and the rest by legal means Agitation seems to strengthen their position, they are regarded somewhat in the light of martyrs and medical men are esteemed as would be persecutors Another reason perhaps the most potent and one which has not been mentioned in American journals, is that the Christian Scientists owe much of their wide-spread influence to women, and women are a mighty power in the United States Possibly the course dictated by the soundest common sense would be to ignore these fads, except when their professors and followers contravene the law in a too flagrant manner.

Isolation of Consumptive Convicts in Texas

Texas, which is usually looked upon as one of the most backward States in the Union as regards matters pertaining to advanced civilisation, has recently made a forward movement which should put to shame many of those States which claim to be in the front rank of progress The treatment of convicts in various parts of the United States has long been the subject of adverse criticism, and the custom of allowing criminals afflicted with tuberculosis to mix freely with, and even to sleep in the same compartments as, healthy prisoners has been frequently denounced in medical journals in this country The fact that Texas has isolated its consumptive convicts is not generally known, but the authorities have even gone further than this, for its sick convicts receive practically the same treatment as that followed in the ordinary sanatoria for consumptives. They are fed on nourishing food and are given stimulants when necessary Cleanliness and sanitary precautions are strictly enforced If not confined to bed the men are required to live entirely in the open air and to sleep in a large stockade where, it is needless to remark, each enjoys an ample sufficiency of pure air. Each one works according to his strength and the employment is wholly restricted to market gardening; nevertheless, this isolated convict settlement has returned to the State in two years a net profit of about $2500 (£500). The example set by Texas is one to be copied.

---

[1] THE LANCET, [illegible]

[2] Policli [illegible]

[3] Il Policli [illegible]

Care of the Foundlings in New York.

The New York County Visiting Committee of the State Charities Aid Association have just issued their annual report dealing with the conduct of the various charitable institutions under their supervision. The most satisfactory item of news in this publication is that showing the improved methods now in force for the rearing of foundling infants. Only a few years ago the management of the Infants' Hospital on Randall's Island was a public scandal. The report published by the committee in December, 1897, stated that of 366 infants under the age of six months admitted to the hospital during the year 1896 only 12 were alive on April 15th, 1897—a death-rate of $96\frac{7}{10}$ per cent. This condition of affairs aroused public indignation and sentiment, and philanthropists came forward with money and plans to endeavour to devise methods whereby these unfortunate infants might have a fair chance to live. The fact was recognised that so long as the infants were massed together in one building and fed to a great extent by artificial means the mortality amongst them must necessarily be very large. The State Charities Aid Association then suggested that the foundlings should be removed as soon as possible after their reception at the Infants' Hospital to carefully selected families in the country, and that when the children became healthy and strong homes should be provided for them by adoption. This placing out system has been practised successfully for a considerable time in Massachusetts and Pennsylvania. The Association for Improving the Condition of the Poor joined with the State Charities Aid Association in this Samaritan endeavour and the joint committee approached the Commissioner of Charities for the boroughs of Manhattan and the Bronx with a proposal offering to transfer a certain proportion of the foundlings to boarding-houses in the country. The Commissioner gladly welcomed the offer, stipulating that the committee were to meet all expenses and that the number under their care should not exceed 25 at any one time. The work was begun in April, 1898, and the results have been most encouraging, the mortality-rate having fallen from 55·9 per cent. in 1899 to 18·9 per cent. in the year ending March, 1901. The committee have also been equally successful in providing permanent homes for the children by adoption. Other public authorities in Greater New York were so impressed by the success of the experiment that the Commissioner of Public Charities for the boroughs of Brooklyn and Queens in 1900 requested the committee to perform the same service for the foundlings coming under his charge. This request was granted under certain conditions. In December, 1900, the Commissioner for Manhattan and the Bronx, finding that the system had more than realised the expectations of its promoters, asked the committee to take charge of all foundlings coming under his care who had been baptized in the Protestant faith, having up to that time limited the number to 25. The Roman Catholics have now formed a guild—the Guild of the Infant Saviour—and they will follow the plan pursued with such beneficial results by the Protestants. Both agencies will receive the foundlings directly from Bellevue Hospital, to which institution they are first taken, thus obviating the transfer from Bellevue to the Infants' Hospital and thence to the country, except in instances in which special medical treatment in the hospital is desirable. It may be said that the foundlings who since January have been taken directly to the country are all alive at present. The fact has been demonstrated so thoroughly and with such frightful effects that many foundling hospitals, however carefully managed, are nothing more or less than death-traps for infants, that it is to be sincerely hoped that the example of New York may be widely followed and that the wholesale "massacre of the innocents" may thus be stayed.

Sanatorium for Indigent Women and Children Suffering from Tuberculosis in New York State.

The method of treating consumption, especially in its incipient stages, by allowing its victims plenty of fresh air and wholesome food has been shown to be the only effective and rational means of checking the spread of the disease. In every civilised country of the world sanatoria for those suffering from tuberculosis are springing up on all sides. There is, however, a class of people who, though living under conditions peculiarly favourable to contracting and disseminating the malady, are by reason of their poverty unable to escape these conditions. The class referred to comprises working girls and poor young married women and children suffering from tuberculosis. A pressing need of the times is the establishment of sanatoria for such as these. It must be ever borne in mind that not only should the consumptive poor be treated for their own sakes and upon general charitable principles, but also as a precaution against spreading contagion. Tuberculosis will never be stamped out while means of contracting and propagating the malady exist as they do at present amongst the poor. Recognising this truth in New York a committee of women has been formed for the purpose of founding an institution for the class referred to above, and the project has prospered beyond the best hopes of its founders. It is now three months since the organisation was formed and already more than $30,000 (£6000) have been subscribed. The work, however, cannot be begun in a practical manner until $100,000 (£20,000) have been obtained, and this sum must be forthcoming by June 1st if arrangements are to be made this summer to receive patients. Tuberculosis is very prevalent in New York State and there was an increase in 1899 of 300 deaths from the disease over the year preceding. In 1900 10,000 cases were reported to the New York Medical Board of Health and it is estimated that there are at the present time in New York City alone 30,000 cases. The proposed sanatorium at Stony Wolde will be non-sectarian and the medical board under whose control it will be managed is composed of physicians of the highest standing in New York and Albany. Among the members of the committee is Mrs. George H. Shrady, the wife of the editor of the *Medical Record.*

May 22nd.

Obituary.

JOHN DAVID WILLIAMS, M.D., C.M., B.Sc. (PUB. H.) EDIN.

THE death of Dr. J. D. Williams is pathetic in the extreme. By sheer hard work and by his scrupulous attention to matters of detail he had managed to secure the confidence of the general practitioners within a considerable distance of Cardiff and although still under 40 years of age he had established for himself a reputation as an operator and accurate diagnostician which many older men might well have envied. Born in the Isle of Anglesey in the year 1864 he became at the age of 16 years the pupil of Dr. Griffith R Griffith of Carnarvon. At 18 years of age he entered the University of Edinburgh and graduated M.B. and C.M. in 1888, obtaining the Freeland Barbour scholarship. For a short time he was demonstrator of anatomy at the Edinburgh School of Medicine. In 1892 he took the public health degree of B Sc. and for a time his inclination turned to the special science of preventive medicine, but his tastes were evidently in the direction of gynæcology, for in 1890 he was awarded the University gold medal for his M.D. thesis upon the pathology of the female generative organs. After leaving Edinburgh he was in practice for three years at Dowlais, near Merthyr, but his health broke down and he went to Cardiff with the intention of devoting himself exclusively to gynæcological work. His first public appointment was in 1896 upon the consulting staff of the Cottage Hospital which had just been established by the exertions of Mr. Henry Naunton Davies at Porth. In the following year he was elected upon the staff of the Cardiff Provident Dispensary and of the Cardiff Infirmary, a special ward being allotted him at the latter institution, though, unfortunately, through lack of funds, the original number of beds have latterly been sadly lessened. As evidence not only of the need for this special department but of the success which has attended Dr. Williams's labours it is sufficient to say that more than 60 patients are at the present time awaiting admission to the gynæcological ward of the infirmary. He was an enthusiastic Freemason and in 1896 was one of the founders of the Prince Llewellyn Lodge at Cardiff. At the time of his death he was junior warden of the lodge and but for his illness would have been invested senior warden and next year would doubtless have occupied the chair. The history of his fatal illness is unhappily but a repetition of that of many others. At Easter he visited Rome and, though usually peculiarly careful in such matters, he drank some water from a well near the city and soon after returning to Cardiff he developed typhoid fever. Although apparently doing well on May 17th hæmorrhage occurred and he died on the morning of the 21st. He was buried on the 24th in the picturesque churchyard of the village of St Fagan's, the seat of Lord Windsor, the funeral being attended by practically every member of the medical profession in Cardiff and by many from the surrounding district. Never before was there such a gathering of Cardiff practitioners. Many of the brethren from the Prince Llewellyn Lodge and other lodges were also present. Of Dr. Williams's personality it is difficult to speak in terms that will not seem exaggerated. Although exceptionally quiet and undemonstrative he had the faculty of securing the confidence both of the colleague to whose assistance he was called and of the patient for whose welfare they were jointly solicitous. Outside his profession he had a charm peculiarly his own, and the social life of Cardiff has sustained through his untimely death a very grievous loss.

Medical News.

UNIVERSITY OF CAMBRIDGE.—The following egrees in Medicine and Surgery were conferred on ay 23rd:—

Master of Surgery—W. D Harmer, King's.
Bachelor of Medicine—H. Edmondson, Clare, K. E Crompton, Caius; and A B. Taylor, Downing.
Bachelor of Surgery—A. R. M. Brenan, Trinity; K. E. Crompton, Caius; and A. B. Taylor, Downing.

. sum of £21,500 from the Benefaction Fund has been ppropriated to the erection of the new Medical School uildings, including the Humphry Museum.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—'ELLOWSHIP EXAMINATION.—The following candidates aving passed the necessary examination have been admitted 'ellows of the College:—

Mr A. G Beale, Mr. M. F. Cahill, Mr. E. P Frazer, Miss G. H. Giffen, Mr E. J. A. Haynes, Mr. R. M. Hugo, Mr. J. J. H. Jackman, Captain S. J. C Prittie-Perry, Mr W. Smartt, Mr. A. W. Tabuteau, Mr. G T. Whyte, and Mr R. B. Wright.

'he following candidates have passed the primary part of he Fellowship examination:—

Mr. A. E Boyd, Mr R. W. Burkitt, Mr. K. Fleury, Mr. J. J. McConnell, and Mr. S. S. Pringle

THE SOUTH AFRICAN CIVIL SURGEONS' DINNER.—We are asked to announce that at the dinner which is to be held at the Hotel Cecil next Wednesday, June 5th, at 7 30 for 8 P.M., a few seats will be reserved for those who have been unable to notify their intention of attending. Tickets will be paid for on the stairs. No seats will be reserved beforehand except those at the high table, but seats may be retained on arrival by filling in the blank card to be found in each place. Applications have already been received for over 130 dinner tickets.

THE ASSOCIATION OF ASYLUM WORKERS.—Sir J. Crichton-Browne presided on May 24th at the annual meeting of the members of the Association of Asylum Workers in the rooms of the Medical Society, Chandos-street, W. The chairman stated that there was a slight diminution in the number of members (from 3006 to 2868), due to the absence of Army reservists serving their country in South Africa. It was most satisfactory to note that the colonies were coming into line with them. With respect to the possibility of lunacy legislation he thought that having regard to the advanced stage of the session and the state of public business the prospect was sadly remote No opposed Bill would stand a chance of passing, while no measure would be approved that did not deal adequately with the pension question. Asylum workers, he said, were of a much more nervous class that they used to be, though the standard of work was higher. Their work was honestly performed, without the prospect of the Victoria Cross, a testimonial, and a dinner. It was not, however, without its compensating benefits, because while they were earning their livelihood they were doing good Christian work which proved a blessing to the inmates. Much, however, remained to be done in the diligent treatment of chronic cases, and he urged them never to regard any case as irretrievably hopeless. Dr. Robert Jones seconded the adoption of the report, which was agreed to, and on the motion of Dr. Sidney Coupland, seconded by Miss Honnor Morten, the balance-sheet was adopted. Sir J. Crichton-Browne was re-elected president for the ensuing year.

MR. JOHN DUNSTAN, M.R.C.V.S., of St. Mellion, Cornwall, has been appointed professor of surgery and materia medica at the Royal (Dick) Veterinary College, Edinburgh, vacant by the resignation of Professor Whitecross. Mr. Dunstan is a member of a Cornish family who for six generations have practised veterinary surgery and he has for several years acted as honorary secretary of the Western Counties Veterinary Medical Association.

INFANT MORTALITY IN NORTH DEVON.—An inquest was held at Ilfracombe on May 21st by the deputy coroner (Dr. E. J. Slade-King) upon an illegitimate child, aged eight weeks. The evidence showed that the mother, who had been recently discharged from the Barnstaple Workhouse, had fed the deceased upon milk, bread, and biscuits, and a verdict of "Death from improper feeding" was returned. Dr. Slade-King stated that the mortality of illegitimate children in the Barnstaple district during the past year was 50 per cent. of those under one year of age, and the medical men of Ilfracombe had therefore decided not to give certificates of death in such cases.

ROYAL MEDICAL BENEVOLENT COLLEGE.—At the annual general meeting held on Wednesday last at the office of the college in Soho square, the following candidates for pensionerships and foundation scholarships were reported by the scrutineers, Dr. Baines, Dr. Felce, and Dr. Galton, to have obtained the largest number of votes and were declared to have been duly elected:—

PENSIONERSHIPS.

1 Eliza F. Chapman ...	10,238	3 Ellen Bull	7141
2. Fanny A. Coleman ...	8713	4. Charlotte E. Davies ...	6616

FOUNDATION SCHOLARSHIPS.

1. G. A. L Anderson ...	10 939	5. G. W. Adams	6189
2. C. A. Mallam	9475	6 T. G M. Clarke ...	6168
3. A. R Hemsted	6897	7. D. A. Buchan	5427
4 W. Bourne	6644		

ANNUAL MEETING OF THE BRITISH MEDICAL TEMPERANCE ASSOCIATION.—The twenty-fifth annual meeting of this association was held at the Temperance Hospital on May 21st. In the unavoidable absence of the President, Professor G Sims Woodhead, the chair was taken by Major G. K. Poole, M.D.—The report showed an addition during the year of 28 new members and 92 new student associates, and a total of 495 members, 584 medical students, and four lay associates —Dr. T Morton, the treasurer, presented the balance sheet, showing an income of £107 but closing with an adverse balance of £26.—After the business had been concluded a paper was read by Dr. J. J. Ridge on the Temperance Question as affected by Modern Experiments. He contended that these showed that alcohol was not a true food since even though some was used up in the body its action on the various tissues showed that it was not harmless as food ought to be in any reasonable quantity. It had been proved to be deleterious even in moderate quantities by Kraepelin, Fürer, and others.—A discussion ensued in which Major Poole, Dr. S Andrews (Basingstoke), Dr. T. Rushbrooke, Mr. W. F. Hazel, and others took part, and the following motion was moved by Mr. F. Churchill, seconded by Dr. R Paramore, and carried unanimously: "That the leaders of the profession and teachers in our medical schools be requested to urge the students attending their lectures to point out hereafter to their patients the dangers of the habitual use of alcoholic liquors."—A new departure was made by agreeing to admit as subscribers any persons (whether abstainers or not) who desire to assist the association in this way to promote the cause of temperance. Subscriptions should be sent to the honorary secretary, Dr. J. J. Ridge, Enfield, Middlesex.

Parliamentary Intelligence.

HOUSE OF COMMONS.

THURSDAY, MAY 23RD.

Disease among the Troops in South Africa.

SIR WALTER FOSTER asked the Secretary of State for War if he could state the number of cases of typhoid fever and the number of deaths among the forces in South Africa during the month of April, and also the number of cases of plague and the number of deaths from that disease, up to the latest advices, among the *soldiers and others engaged* in the campaign.—Mr. BRODRICK replied: The returns for April received only take up to the 19th; there had been then 1052 admissions for enteric fever and 140 deaths. The numbers of cases of plague have, according to latest advices, been as follows—viz , 14 soldiers, 20 native drivers, and eight other employés; of seven deaths reported none are stated to have occurred among soldiers —Dr. FARQUHARSON asked the Secretary of State for War whether he could state the number of sick in the 2nd *Worcesters* at Bloemfontein between April 4th *and* 27th, 1900, what were the total of enteric fever cases, and what the ratio of mortality was up to May 31st.—Lord STANLEY replied to the question, saying: The number of sick admitted to hospital between April 4th and 27th, 1900, was 94. It is not possible to differentiate the cases of enteric fever from the information at the disposal of the War Office, but up to May 31st there were 15 deaths from enteric fever.

Treatment of Tuberculous Carcasses.

Mr. FIELD asked the President of the Local Government Board whether he was aware that the late medical officer of health of the City of London stated in his annual report to the Corporation, 1900, that he would condemn all carcasses affected by localised tuberculosis; and, in view of the statement of the Royal Commission on Tuberculosis that such meat might be eaten with impunity, and seeing that the late medical officer of health of the City of London was paid part of his salary by the *Local Government* Board, would he state what steps the Board would take.—Mr. WALTER LONG said: I am aware of the statements made on this subject by the late medical officer of health of the City of London in his report for 1899, but I am not responsible for the views which he entertained. I may add that no part of his salary was paid by the Local Government Board.

Educational Appointment for Dr. Henry Ward Irvine.

On the motion for the adjournment of the House for the Whitsuntide vacation,

Mr. MCKENNA called attention to the appointment of Dr. Henry Ward Irvine as one of His Majesty's inspectors of schools. He gave to the House an account of the proceedings before the General Medical Council when Dr. Irvine was charged with unprofessional conduct in connexion with an institution in Birmingham and the Council found the charge proved and suspended further proceedings in the case for six months, and explained that since then Dr. Irvine had withdrawn from the institution and accepted this appointment. The hon. Member submitted that Dr. Irvine should not have received the appointment whilst a charge of this kind was hanging over him. He had no wish to mention the names of the persons who were interested in this gentleman.

Mr. CHAMBERLAIN said that as the whole speech was an insinuation he thought the hon. Member had better mention names.

Mr. MCKENNA said he was surprised to find the right hon. gentleman so sensitive—he who had not hesitated to call those opposed to him traitors, pro-Boers, and Little Englanders. However, if he wanted the names he would say that the first witness called in defence of Dr. Irvine was Mr. W. Cook, J.P., Alderman of the City of Birmingham and chairman of the Hospital Saturday Fund in Birmingham.

Mr. CHAMBERLAIN: And chairman of the Liberal Association.

Mr. MCKENNA said that this information was not given in the report of what took place. The next witness was the honorary secretary of the institution, and the next Mr. Arthur Chamberlain, J.P. Perhaps the Vice-President of the Council would be able to explain to the House who it was that recommended this gentleman to be an inspector of schools.

Mr. CHAMBERLAIN complained that the hon. Member had given him no notice of this attack, but he happened to know something of the subject matter and he would state the facts to the House. He had never seen Dr. Irvine and knew nothing about him except that he had been appointed an inspector of schools. He had never recommended or suggested him for the appointment, and, indeed, had never even heard of his name until the hon. Member introduced it. It was unfortunate that Members below the gangway could not attack him without attacking other people. He did not mind these attacks, but he thought it was a distinct abuse of the privileges of the House to bring in the names of people who were in no way connected with the Colonial Secretary. The hon. Member had represented that Dr. Irvine was under a ban, that his character was under the consideration of the General Medical Council. As a matter of fact, the only charge against this gentleman was that of having infringed what he might call a trade-union rule of the medical profession. There was absolutely nothing against his private character. Certain gentlemen in Birmingham, among them his brother, Mr. Arthur Chamberlain, devised a new charity in Birmingham to secure for the working classes of the city the advantages of consultation with eminent practitioners which they could not have under existing circumstances without payment beyond their means. The object was to secure a gentleman of high professional reputation. Dr. Irvine was chosen as the first of these practitioners, and the moment he was chosen the greatest possible objection was taken on behalf of the medical profession in Birmingham. He did not wish to go into the matter in detail, but it must be evident to the House that the appointment of a gentleman to a position of this kind might have the effect of injuring the business of other private practitioners, and it was not unnatural that complaint should be made. The complaint was carried to the General Medical Council who, he understood, gave as their decision that if Dr. Irvine did not retire from the position they would strike his name off the Medical Register. Dr. Irvine, for good reasons no doubt, thought it his duty to bow to the decision of the Council and he gave notice to the charitable institution that he would be unable to continue his services to it. He believed that the institution had already appointed, or intended to appoint, another gentleman of professional eminence and he hoped it would find some one who would carry out the eminently beneficial objects which its promoters had in view. That was the whole story. It was in connexion with a story like this, a story of a charity in which men of all classes and all politics in Birmingham were concerned, that the hon. Member got up and with an air of mystery tried to make the House believe that he had discovered a plot in which the Colonial Secretary was concerned.

Sir WALTER FOSTER explained to the House the duties and powers of the General Medical Council and in particular the circumstances in which the Council might declare a registered medical practitioner to have been guilty of "infamous conduct in a professional respect."

Mr. CHAMBERLAIN, interrupting the hon. Member, asked whether he considered taking lower fees than were usual constituted "infamous conduct."

Sir WALTER FOSTER replied that he was merely quoting the words of the Medical Act and that it did not lie with him but with the General Medical Council to define what they meant. In this case the Council had found the charge proved and they might proceed to erase the name from the Register. Dr. Irvine had, as it were, been remanded for six months in order that he might have an opportunity of considering his position. They had here the decision of a judicial body so high that no judge of the land had ever ventured to question its decisions. On the contrary, the courts had always held that the Council were the only body competent to decide what was "infamous conduct in a professional respect." He submitted on purely public grounds that no person in such a position as this doctor, awaiting the judgment of the General Medical Council on a charge on which he had been found guilty, ought to have been appointed to a high public office, especially as the body which made the appointment, the Privy Council, was the body under which the General Medical Council worked.

Sir JOHN GORST said that Dr. Irvine had been selected from a large number of candidates for an inspectorship of schools by the Lord President of the Council as the man from his very *exceptional* qualifications best fitted for the office. He held a very distinguished degree of Trinity College, Dublin, and not being a man of great means he had supported himself before and after he had taken his medical degree by acting as a teacher and master in several secondary *schools in Ireland.* At the time the appointment was made the Lord *President* and he had not heard of this charge against Dr. Irvine.

Sir WALTER FOSTER pointed out that the Privy Council received the minutes of the General Medical Council.

Sir JOHN GORST said that neither the Lord President nor he had sufficient leisure to peruse the proceedings of the General Medical Council, but even if the matters alleged in the course of this debate had been brought to the notice of the *Board of Education* they would have seen in them no reason whatever for reconsidering their decision.

FRIDAY, MAY 24TH.

The Standard for Milk.

Mr. HANBURY, on being questioned with regard to this subject by Mr. LAMBERT, said that he was very anxious that there should be the fullest criticism of the report of the Committee before the standard was fixed, but he certainly hoped to have it fixed within a week after the close of the Whitsuntide Recess.

Scottish Health Bill.

On the motion of the LORD ADVOCATE a Bill was introduced and read a first time to amend the law in regard to the sewerage and drainage and water-supply of burghs in Scotland.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

BARNES, A. S., M.B., B.Sc. Lond., has been appointed Junior House Physician to the National Hospital for the *Paralysed* and Epileptic, Queen-square, W.C.

BIRKBECK, L. H. C., B.A., M.B., B.Ch. Oxon., has been appointed Assistant House Physician at St. Thomas's Hospital.

BURFIELD, T., M.A., M.B., B.C. Camb., L.R.C.P. Lond., M.R.C.S. Eng., has had an extension of his appointment as House Surgeon at St. Thomas's Hospital.

DRYLAND, J. W., M.R.C.S. Eng., L.S.A., has been re-appointed Medica Officer to the Kettering Joint Hospital Board.

DUDGEON, L. S., L.R.C.P. Lond., M.R.C.S. Eng , has had an extension of his appointment as Clinical Assistant in the Electrical Department at St. Thomas's Hospital.

EDWARDS, T. H., L.R.C.P. Lond., M.R.C.S. Eng., has had an extension of his appointment as House Surgeon at St. Thomas's Hospital.

EVELYN, W. A., M.A., M.D. Cantab., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Third Honorary Medical Officer of the York County Hospital.

FOX, R. A., M.B., C.M. Edin., has been appointed Senior Medical Officer at the Coast Hospital, Little Bay, New South Wales.

GOSTLING, G. W., M.B. Lond., L S.A., has been appointed Fourth Surgical Officer of the York County Hospital.

GRIMWADE, A. S., L.R.C.P. Lond., M.R.C.S. Eng., has had an extension of his appointment as Assistant House *Surgeon at* St. Thomas's Hospital.

HARRIS, A. W., M.R C.S. Eng., L.S.A., D.P.H. Eng. Conj , has been appointed Medical Officer and Analyst to the *Metropolitan* Borough of Lewisham.

HARWOOD, H. M., M.A., M.B., B.C. Cantab., has been appointed Clinical Assistant in the Departments of Diseases of the Throat and Diseases of the Ear at St. Thomas's Hospital.

Hayman, F D M.R.C.S Eng. has been appointed Officer of Health of Ararat, Victoria.

Hodson, V S, B A., M.B, B.Ch Oxon, has been appointed Assistant House Physician at St. Thomas's Hospital.

Hunt, S., L.R.C.P. Lond. M.R.C.S. Eng, has had an extension of his appointment as Assistant House Surgeon at St. Thomas's Hospital.

Lock, J L., B A., M.B, B C Cantab, M R.C P Lond., M R C S Eng, has been appointed House Physician to St Thomas's Hospital

Lotz, H J., L.R.C.P Lond., M R.C S Eng, has been appointed a Member of the Medical Board, Western Australia.

Martin A. E M A, M B, B C Cantab., L.R.C P Lond., M R C S Eng, has been appointed Senior Obstetric House Physician at St. Thomas's Hospital.

Mayor, W C., L.R.C P Lond, M R C S Eng, has been appointed Clinical Assistant in the Department of Diseases of the Skin at St. Thomas's Hospital

Mennell, Z, L.R.C P Lond, M R.C S Eng, has had an extension of his appointment as House Physician at St. Thomas's Hospital.

Millard C Killick M D, D Sc. Edin, has been appointed Medical Officer of Health and Public Analyst for the Borough of Leicester, vice H G H. Monk, resigned

Miller, T D., L.R.C P Lond, M R.C S Eng, has been appointed Clinical Assistant in the Department for Diseases of the Skin in St. Thomas's Hospital.

Nitch, C A. R., M B. Lond, L.R.C.P Lond., M R.C S Eng, has had an extension of his appointment as Assistant House Surgeon at St. Thomas's Hospital.

Parker Herbert George, F R.C S., L.R.C P Edin., has been appointed Honorary Ophthalmic Surgeon to the Bolton Infirmary and Dispensary vice A Emrys Jones, resigned

Paterson, H. J., M.A., M.B, B.C Cantab., F R.C S Eng, has been appointed Assistant Surgeon to the London Temperance Hospital.

Sawyer, J E H, M A., M B, B Ch. Oxon., has been appointed House Physician at St. Thomas's Hospital

Shorrock, J I, L.D.S R C.S Eng, has been appointed Dentist to the Blackburn Cottage Homes.

Shuttleworth G E., M.D Heidel., M R.C.S Eng, has been appointed Visiting Medical Expert to the Isolation Hospital at Darenth Asylum

Singer H D, M.D Lond., L.R C.P Lond., M.R.C S Eng, has been appointed Senior House Physician to the National Hospital for the Paralysed and Epileptic, Queen-square, W C

Skerrett F B., B Sc. Lond, L.R.C P Lond., M.R.C S. Eng., has had an extension of his appointment as House Physician at St Thomas's Hospital.

Small, R, L.R.C.P Lond., M R.C.S. Eng has been appointed Clinical Assistant in the X Ray Department at St. Thomas's Hospital.

Spencer, Walter, L.R.C P, L.R.C S Edin., has been appointed Poor-Law Medical Officer and Public Vaccinator of Bolsover

Stannus, H S, L.R.C P Lond., M R.C S Eng., has been appointed Junior Obstetric House Physician at St. Thomas's Hospital.

Stevens A. E. M.B. Durh., L.R.C P Lond., M.R.C.S Eng has been appointed Clinical Assistant in the Department for Diseases of the Throat at St. Thomas's Hospital.

Taylor, T. S, M.A., M B, B C Camb, has had an extension of his appointment as House Surgeon at St. Thomas's Hospital.

Willis W M, F R.C S Eng, has been appointed Honorary Assistant Surgeon at the General Hospital, Nottingham.

Wills B S., L.R.C.P Lond., M.R.C S Eng, has had an extension of his appointment as House Surgeon at Thomas's Hospital

Woods, W H O., B A., M.B., B.C Camb. has had an extension of his appointment as Assistant House Surgeon at St. Thomas's Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index)

Ashanti, West Africa —Medical Officer, with previous tropical experience.

Birmingham and Midland Eye Hospital.—Junior House Surgeon. Salary £60 per annum, with board and lodging.

Bradford Royal Infirmary —Dispensary Surgeon, single. Salary £100 per annum, with board and residence.

Bridgnorth and South Shropshire Infirmary —House Surgeon. Salary £80 with board and lodgings.

Brighton Throat and Ear Hospital, Church-street, Queen's-road — Non resident House Surgeon for six months, renewable. Salary at rate of £75 per annum.

Burton-on Trent Infirmary —House Surgeon Salary £150 for the first year and £170 for the second, with furnished rooms, coal, and gas.

Cheltenham General Hospital.—Junior House Surgeon, unmarried. Salary £60 per annum, with board lodging, and washing

Chester General Infirmary —House Surgeon

Chorlton upon Medlock Dispensary, Manchester —Resident House Surgeon, unmarried. Salary £130 per annum with furnished rooms and attendance.

County Asylum Carmarthen —Junior Assistant Medical Officer, unmarried. Salary £130, advancing £10 yearly to £150, with furnished apartments board, washing and attendance, without stimulants

Devonshire Hospital, Buxton, Derbyshire.—Assistant House Surgeon Salary £50 per annum, with furnished apartments, board, and washing

Dumfries and Galloway Royal Infirmary —Assistant House Surgeon. Salary £25 per annum, with board and washing

Gold Coast —Government Medical Officers, unmarried. Salary £400 a year, free passages, and allowances.

Grahamstown Asylum and Chronic Sick Hospital, South Africa.—Assistant Medical Officer Salary £250 per annum, with board and quarters. Free passage.

Hailey Open air Sanatorium, Ipsden, Wallingford.—Resident Medical Officer Salary at the rate of £100 per annum, rising to £150 after six months and £200 after first year

Hospital for Sick Children, Newcastle-on Tyne.—Resident Medical Officer Salary £60, with board, lodging and laundry

Hull Royal Infirmary —Junior Assistant House Surgeon Salary £60, with board and lodging

Indian Mining Association, Bengal.—Assistant Medical Officer, unmarried Salary Rs.300 per mensem, with free house and horse and travelling allowance.

Isle of Wight County Asylum, near Newport —Assistant Medical Officer, unmarried. Salary £150 per annum, with furnished apartments, board (exclusive of alcoholic drinks), attendance, and washing

Jarrow Memorial Hospital.—House Surgeon unmarried.

Kent and Canterbury Hospital.—Assistant House Surgeon, unmarried. Salary £60 a year, with board and lodging

Liverpool Stanley Hospital.—Honorary Physician.

London Hospital Medical College.—Instructor of Anæsthetics and two Assistants

Metropolitan Asylums Board —Six Assistant Medical Officers (unmarried) at the Fever and Small pox Hospitals. Salary £160 first year, £180 the second, and £200 the third and subsequent years, with board lodging attendance, and washing

Newton Abbot Union —Medical Officer and Public Vaccinator. Salary as Medical Officer £30 per annum, with 10*s* 6*d* for Midwifery, as Public Vaccinator by fees.

North Eastern Hospital for Children, Hackney road, N E —House Surgeon for six months. Salary at rate of £80 per annum, with board, residence, and laundry

Nottingham General Dispensary —Senior Resident Surgeon. Salary £200 per annum, increasing by £15 every year Also two Assistant Resident Surgeons Salaries £160 per annum each, increasing by £10 every year, furnished apartments, attendance, light, and fuel. Unmarried.

Parish of Lambeth.—District Medical Officer Salary £70 per annum and fees

Queen's Hospital, Birmingham —House Surgeon for 14 months Salary at the rate of £50 per annum, with board, lodging, and washing

Royal Albert Hospital, Devonport.—Assistant House Surgeon for six months Salary at the rate of £60 per annum, with board, &c.

Royal Berks Hospital.—House Surgeon Salary £80 per annum, with board, lodging, and washing

Royal Cornwall Infirmary —House Surgeon, unmarried Salary £100, increasing by £10 a year, with board (excluding stimulants) and apartments.

Royal Devon and Exeter Hospital, Exeter —Junior Assistant House Surgeon for six months. Salary at the rate of £50 per annum, with board, lodging, and washing

Royal Surrey County Hospital, Guildford.—Assistant House Surgeon Salary £50 with board, residence and washing

Settlement of Women Workers, Canning Town.—Senior Resident Medical Officer (female). Salary £100, with board and residence. Also Qualified Assistant. Board and residence only

Society of Apothecaries of London —Examiner in Medicine, also Examiner in Midwifery

St Mungo's College, Glasgow —Professorship of Medicine

St Pancras and Northern Dispensary, 126, Euston-road —Resident Medical Officer Salary £105 with residence and attendance.

Swansea Union —Medical Officer and Public Vaccinator Salary and fees £450 per annum. Also Assistant Medical Officer Salary £200 per annum

Throat Hospital, Golden square W —Junior House Surgeon (non resident). Salary at the rate of £100 per annum and lunch daily

University College, London.—Surgical Registrar

West Ham Hospital, Stratford, E.—Junior House Surgeon. Salary £75 per annum, with board, residence, &c.

West London Hospital, Hammersmith road, W —House Physician and House Surgeon, tenable for six months.

Western General Dispensary, Marylebone-road.—Second House Surgeon, unmarried. Salary £75 a year, with board and residence, and 10*s* a month for laundry

Births, Marriages, and Deaths.

BIRTHS.

Morrison —On May 24th, at Brighton road, South Croydon, the wife of Alexander Morrison, M R.C S., L.R.C P, of a daughter

Wellby —On May 29th, at 27th, St. Julian's Farm road West Norwood, S E the wife of Stanley Wellby, M.B Oxon, of a daughter

Woodman —On May 27th at New road, Rochester, the wife of William James Woodman M R.C S, &c., of a son.

MARRIAGE.

Watson—Green —On May 13th, at Algiers, first at the British Consulate and afterwards at the Church of the Holy Trinity George Samuel Watson, M.R C S, of Tunbridge Wells, to Edith Sarah Green, of The Limes, Hurstpierpoint.

DEATHS

MacLeroy —On May 19th, at Oakford House, King's Teignton, South Devon, Arthur Lloyd MacLeroy, M.A. Oxon., L S A., L.A.H. Dub., in his 49th year

Skimming —On May 23rd, Robert Skimming, M.D, F R.C S Ed, of Tudor Lodge East Molesey aged 58.

Watkins —On May 20th, Robert Webb Watkins, F R.C.S, J P, of Towcester, aged 76.

Williams —On May 21st, at 20, Windsor-place, Cardiff, John D. Williams, M.D, aged 36 years

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Parliamentary Intelligence.

HOUSE OF COMMONS.

THURSDAY, MAY 23RD.

Disease among the Troops in South Africa.

SIR WALTER FOSTER asked the Secretary of State for War if he could state the number of cases of typhoid fever and the number of deaths among the forces in South Africa during the month of April, and also the number of cases of plague and the number of deaths from that disease, up to the latest advices, among the soldiers and others engaged in the campaign.—Mr. BRODRICK replied: The returns for April received only take up to the 19th; there had been then 1052 admissions for enteric fever and 140 deaths. The numbers of cases of plague have, according to latest advices, been as follows—viz., 14 soldiers, 20 native drivers, and eight other employés; of seven deaths reported none are stated to have occurred among soldiers.—Dr. FARQUHARSON asked the Secretary of State for War whether he could state the number of sick in the 2nd Worcesters at Bloemfontein between April 4th and 27th, 1900, what were the total of enteric fever cases, and what the ratio of mortality was up to May 31st.—Lord STANLEY replied to the question, saying: The number of sick admitted to hospital between April 4th and 27th, 1900, was 94. It is not possible to differentiate the cases of enteric fever from the information at the disposal of the War Office, but up to May 31st there were 15 deaths from enteric fever.

Treatment of Tuberculous Carcasses.

Mr. FIELD asked the President of the Local Government Board whether he was aware that the late medical officer of health of the City of London stated in his annual report to the Corporation, 1900, that he would condemn all carcasses affected by localised tuberculosis; and, in view of the statement of the Royal Commission on Tuberculosis that such meat might be eaten with impunity, and seeing that the late medical officer of health of the City of London was paid part of his salary by the Local Government Board, would he state what steps the Board would take.—Mr. WALTER LONG said: I am aware of the statements made on this subject by the late medical officer of health of the City of London in his report for 1899, but I am not responsible for the views which he entertained. I may add that no part of his salary was paid by the Local Government Board.

Educational Appointment for Dr. Henry Ward Irvine.

On the motion for the adjournment of the House for the Whitsuntide vacation,

Mr. MCKENNA called attention to the appointment of Dr. Henry Ward Irvine as one of His Majesty's inspectors of schools. He gave to the House an account of the proceedings before the General Medical Council when Dr. Irvine was charged with unprofessional conduct in connexion with an institution in Birmingham and the Council found the charge proved and suspended further proceedings in the case for six months, and explained that since then Dr. Irvine had withdrawn from the institution and accepted this appointment. The hon. Member submitted that Dr. Irvine should not have received the appointment whilst a charge of this kind was hanging over him. He had no wish to mention the names of the persons who were interested in this gentleman.

Mr. CHAMBERLAIN said that as the whole speech was an insinuation he thought the hon. Member had better mention names.

Mr. MCKENNA said he was surprised to find the right hon. gentleman so sensitive—he who had not hesitated to call those opposed to him traitors, pro-Boers, and Little Englanders. However, if he wanted the names he would say that the first witness called in defence of Dr. Irvine was Mr. W. Cook, J.P., Alderman of the City of Birmingham and chairman of the Hospital Saturday Fund in Birmingham.

Mr. CHAMBERLAIN: And chairman of the Liberal Association.

Mr. MCKENNA said that this information was not given in the report of what took place. The next witness was the honorary secretary of the institution, and the next Mr. Arthur Chamberlain, J.P. Perhaps the Vice-President of the Council would be able to explain to the House who it was that recommended this gentleman to be an inspector of schools.

Mr. CHAMBERLAIN complained that the hon. Member had given him no notice of this attack, but he happened to know something of the subject matter and he would state the facts to the House. He had never seen Dr. Irvine and knew nothing about him except that he had been appointed an inspector of schools. He had never recommended or suggested him for the appointment, and, indeed, had never even heard of his name until the hon. Member introduced it. It was unfortunate that Members below the gangway could not attack him without attacking other people. He did not mind these attacks, but he thought it was a distinct abuse of the privileges of the House to bring in the names of people who were in no way connected with the Colonial Secretary. The hon. Member had represented that Dr. Irvine was under a ban, that his character was under the consideration of the General Medical Council. As a matter of fact, the only charge against this gentleman was that of having infringed what he might call a trade-union rule of the medical profession. There was absolutely nothing against his private character. Certain gentlemen in Birmingham, among them his brother, Mr. Arthur Chamberlain, devised a new charity in Birmingham to secure for the working classes of the city the advantages of consultation with eminent practitioners which they could not have under existing circumstances without payment beyond their means. The object was to secure a gentleman of high professional reputation. Dr. Irvine was chosen as the first of these practitioners, and the moment he was chosen the greatest possible objection was taken on behalf of the medical profession in Birmingham. He did not wish to go into the matter in detail, but it must be evident to the House that the appointment of a gentleman to a position of this kind might have the effect of injuring the business of other private practitioners, and it was not unnatural that complaint should be made. The complaint was carried to the General Medical Council who, he understood, gave as their decision that if Dr. Irvine did not retire from the position they would strike his name off the Medical Register. Dr. Irvine, for good reasons no doubt, thought it his duty to bow to the decision of the Council and he gave notice to the charitable institution that he would be unable to continue his services to it. He believed that the institution had already appointed, or intended to appoint, another gentleman of professional eminence and he hoped it would find some one who would carry out the eminently beneficial objects which its promoters had in view. That was the whole story. It was in connexion with a story like this, a story of a charity in which men of all classes and all politics in Birmingham were concerned, that the hon. Member got up and with an air of mystery tried to make the House believe that he had discovered a plot in which the Colonial Secretary was concerned.

Sir WALTER FOSTER explained to the House the duties and powers of the General Medical Council and in particular the circumstances in which the Council might declare a registered medical practitioner to have been guilty of "infamous conduct in a professional respect."

Mr. CHAMBERLAIN, interrupting the hon. Member, asked whether he considered taking lower fees than were usual constituted "infamous conduct."

Sir WALTER FOSTER replied that he was merely quoting the words of the Medical Act and that it did not lie with him but with the General Medical Council to define what they meant. In this case the Council had found the charge proved and they might proceed to erase the name from the Register. Dr. Irvine had, as it were, been remanded for six months in order that he might have an opportunity of considering his position. They had here the decision of a judicial body so high that no judge of the land had ever ventured to question its decisions. On the contrary, the courts had always held that the Council were the only body competent to decide what was "infamous conduct in a professional respect." He submitted on purely public grounds that no person in such a position as this doctor, awaiting the judgment of the General Medical Council on a charge on which he had been found guilty, ought to have been appointed to a high public office, especially as the body which made the appointment, the Privy Council, was the body under which the General Medical Council worked.

Sir JOHN GORST said that Dr. Irvine had been selected from a large number of candidates for an inspectorship of schools by the Lord President of the Council as the man from his very exceptional qualifications best fitted for the office. He held a very distinguished degree of Trinity College, Dublin, and not being a man of great means he had supported himself before and after he had taken his medical degree by acting as a teacher and master in several secondary schools in Ireland. At the time the appointment was made the Lord President and he had not heard of this charge against Dr. Irvine.

Sir WALTER FOSTER pointed out that the Privy Council received the minutes of the General Medical Council.

Sir JOHN GORST said that neither the Lord President nor he had sufficient leisure to peruse the proceedings of the General Medical Council, but even if the matters alleged in the course of this debate had been brought to the notice of the Board of Education they would have seen in them no reason whatever for reconsidering their decision.

FRIDAY, MAY 24TH.

The Standard for Milk.

Mr. HANBURY, on being questioned with regard to this subject by Mr. LAMBERT, said that he was very anxious that there should be the fullest criticism of the report of the Committee before the standard was fixed, but he certainly hoped to have it fixed within a week after the close of the Whitsuntide Recess.

Scottish Health Bill.

On the motion of the LORD ADVOCATE a Bill was introduced and read a first time to amend the law in regard to the sewerage and drainage and water-supply of burghs in Scotland.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

BARNES, A. S., M.B., B.Sc. Lond., has been appointed Junior House Physician to the National Hospital for the Paralysed and Epileptic, Queen-square, W.C.

BIRKBECK, L. H. C., B.A., M.B., B.Ch. Oxon., has been appointed Assistant House Physician at St. Thomas's Hospital.

BURFIELD, T., M.A., M.B., B.C. Camb., L.R.C.P. Lond., M.R.C.S Eng., has had an extension of his appointment as House Surgeon at St. Thomas's Hospital.

DRYLAND, J. W., M.R.C.S. Eng., L.S.A., has been re-appointed Medical Officer to the Kettering Joint Hospital Board.

DUDGEON, L S., L.R.C.P. Lond., M.R.C.S. Eng., has had an extension of his appointment as Clinical Assistant in the Electrical Department at St. Thomas's Hospital.

EDWARDS, T. H., L.R.C.P. Lond., M.R.C.S. Eng., has had an extension of his appointment as House Surgeon at St. Thomas's Hospital.

EVELYN, W. A., M.A., M.D. Cantab., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Third Honorary Medical Officer of the York County Hospital.

FOX, R. A., M.B., C.M. Edin., has been appointed Senior Medical Officer at the Coast Hospital, Little Bay, New South Wales.

GOSTLING, G. W., M.B. Lond., L.S.A., has been appointed Fourth Surgical Officer of the York County Hospital.

GRIMWADE, A. S., L.R.C.P. Lond., M.R.C.S. Eng., has had an extension of his appointment as Assistant House Surgeon at St. Thomas's Hospital.

HARRIS, A. W., M.R.C.S. Eng., L.S.A., D.P.H. Eng. Conj., has been appointed Medical Officer and Analyst to the Metropolitan Borough of Lewisham.

HARWOOD, H. M., M.A., M.B., B.C. Cantab., has been appointed Clinical Assistant in the Departments of Diseases of the Throat and Diseases of the Ear at St. Thomas's Hospital.

HAYMAN, F D M.R.C S Eng, has been appointed Officer of Health of Ararat, Victoria.

HODSON V S, B A., M B, B Ch Oxon, has been appointed Assistant House Physician at St. Thomas's Hospital.

[illegible] has had an extension of his [illegible]

[illegible] Thomas's Hospital

MENCE, W C., L.R.C.P Lond, M.R C S Eng, has been appointed Clinical Assistant in the Department of Diseases of the Skin at St. Thomas's Hospital.

MENNELL, Z, L.R.C.P Lond., M.R C.S Eng, has had an extension of his appointment as House Physician at St. Thomas's Hospital.

MILLARD C KILLICK, M D, D Sc Edin., has been appointed Medical Officer of Health and Public Analyst for the Borough of Leicester, vice H G H. Monk, resigned

MILLER, T D, L.R.C P Lond, M R.C S Eng has been appointed Clinical Assistant in the Department for Diseases of the Skin in St Thomas's Hospital.

NITCH, C A. R., M.B Lond, L.R.C P Lond., M R.C S Eng, has had an extension of his appointment as Assistant House Surgeon at St. Thomas's Hospital

PARKER HERBERT GEORGE, F R.C.S, L.R.C P Edin., has been appointed Honorary Ophthalmic Surgeon to the Bolton Infirmary and Dispensary vice A. Emrys Jones, resigned

PATERSON, H J., M A., M B, B.C Cantab., F R.C S Eng, has been appointed Assistant Surgeon to the London Temperance Hospital.

SAWYER, J E H, M A., M.B., B.Ch Oxon., has been appointed House Physician at St. Thomas's Hospital

SHORROCK, J I, L.D S R C S Eng, has been appointed Dentist to the Blackburn Cottage Homes.

SHUTTLEWORTH G E, M.D Heidel., M.R.C.S. Eng, has been appointed Visiting Medical Expert to the Isolation Hospital at Darenth Asylum.

SINGER H D, M D Lond., L R.C P Lond., M R.C S Eng, has been appointed Senior House Physician to the National Hospital for the Paralysed and Epileptic, Queen-square, W C

SKERRETT, F B., B Sc. Lond., L.R.C.P Lond., M.R.C.S. Eng, has had an extension of his appointment as House Physician at St. Thomas's Hospital.

SMALL, R, L.R.C P Lond., M.R.C S Eng, has been appointed Clinical Assistant in the X Ray Department at St. Thomas's Hospital.

SPENCER, WALTER, L.R.C.P, L.R.C.S Edin, has been appointed Poor-Law Medical Officer and Public Vaccinator of Bolsover

STANNUS, H S., L.R.C P Lond., M.R.C S Eng., has been appointed Junior Obstetric House Physician at St. Thomas's Hospital.

STEVENS, A. E. M.B Durh., L.R.C P Lond., M.R.C S Eng, has been appointed Clinical Assistant in the Department for Diseases of the Throat at St. Thomas's Hospital.

TAYLOR, T S, M.A., M.D., B C Camb., has had an extension of his appointment as House Surgeon at St. Thomas's Hospital

WILLIS W M., F R C S Eng has been appointed Honorary Assistant Surgeon at the General Hospital, Nottingham.

WILLS, B S., L.R.C P Lond., M.R.C S Eng, has had an extension of his appointment as House Surgeon at. Thomas's Hospital

WOODS W H. O., B.A., M.B., B C Camb has had an extension of his appointment as Assistant House Surgeon at St. Thomas's Hospital

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index)

ASHANTI, WEST AFRICA —Medical Officer, with previous tropical experience

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Junior House Surgeon Salary £60 per annum [illegible] lodging.

[illegible] Surgeon, single. Salary [illegible]

[illegible] MARY —House Surgeon.

[illegible] h-street, Queen's road — [illegible] s, renewable. Salary at [illegible]

[illegible] on Salary £150 for the [illegible] rnished rooms, coal, and [illegible]

CHELTENHAM GENERAL HOSPITAL.—Junior House Surgeon, unmarried. Salary £60 per annum with board, lodging, and washing

CHESTER GENERAL INFIRMARY —House Surgeon

CHORLTON UPON MEDLOCK DISPENSARY, Manchester.—Resident House Surgeon unmarried Salary £130 per annum with furnished rooms and attendance.

COUNTY ASYLUM Carmarthen —Junior Assistant Medical Officer, unmarried Salary £130, advancing £10 yearly to £150, with furnished apartments, board, washing, and attendance, without stimulants

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—Assistant House Surgeon Salary £50 per annum, with furnished apartments, board and washing

DUMFRIES AND GALLOWAY ROYAL INFIRMARY —Assistant House Surgeon. Salary £25 per annum, with board and washing

GOLD COAST —Government Medical Officers, unmarried. Salary £400 a year, free passages, and allowances

GRAHAMSTOWN ASYLUM AND CHRONIC SICK HOSPITAL, South Africa.—Assistant Medical Officer Salary £250 per annum, with board and quarters. Free passage.

HAILEY OPEN AIR SANATORIUM, Ipsden, Wallingford.—Resident Medical Officer Salary at the rate of £100 per annum, rising to £150 after six months and £200 after first year

HOSPITAL FOR SICK CHILDREN, Newcastle-on Tyne —Resident Medical Officer Salary £60, with board lodging and laundry

HULL ROYAL INFIRMARY —Junior Assistant House Surgeon Salary £60, with board and lodging

INDIAN MINING ASSOCIATION, Bengal —Assistant Medical Officer, unmarried Salary Rs 300 per mensem with free house and horse and travelling allowance.

ISLE OF WIGHT COUNTY ASYLUM, near Newport —Assistant Medical Officer, unmarried Salary £150 per annum, with furnished apartments, board (exclusive of alcoholic drinks), attendance, and washing

JARROW MEMORIAL HOSPITAL.—House Surgeon, unmarried

KENT AND CANTERBURY HOSPITAL.—Assistant House Surgeon, unmarried. Salary £60 a year, with board and lodging

LIVERPOOL STANLEY HOSPITAL.—Honorary Physician

LONDON HOSPITAL MEDICAL COLLEGE.—Instructor of Anæsthetics and two Assistants

METROPOLITAN ASYLUMS BOARD —Six Assistant Medical Officers (unmarried) at the Fever and Small pox Hospitals Salary £160 first year, £180 the second, and £200 the third and subsequent years, with board, lodging attendance, and washing

NEWTON ABBOT UNION — Medical Officer and Public Vaccinator. Salary as Medical Officer £30 per annum, with 10s 6d for Midwifery; as Public Vaccinator by fees

NORTH EASTERN HOSPITAL FOR CHILDREN, Hackney road, N E —House Surgeon for six months Salary at rate of £80 per annum, with board, residence, and laundry

NOTTINGHAM GENERAL DISPENSARY —Senior Resident Surgeon. Salary £200 per annum, increasing by £15 every year Also two Assistant Resident Surgeons. Salaries £160 per annum each, increasing by £10 every year, furnished apartments, attendance, light, and fuel. Unmarried.

PARISH OF LAMBETH.—District Medical Officer Salary £70 per annum and fees

QUEEN'S HOSPITAL, Birmingham.—House Surgeon for 14 months Salary at the rate of £50 per annum, with board, lodging, and washing

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon for six months. Salary at the rate of £50 per annum, with board, &c.

ROYAL BERKS HOSPITAL.—House Surgeon Salary £80 per annum, with board, lodging and washing

ROYAL CORNWALL INFIRMARY —House Surgeon, unmarried. Salary £100, increasing by £10 a year, with board (excluding stimulants) and apartments

ROYAL DEVON AND EXETER HOSPITAL, Exeter —Junior Assistant House Surgeon for six months. Salary at the rate of £50 per annum, with board, lodging and washing

ROYAL SURREY COUNTY HOSPITAL, Guildford — Assistant House Surgeon Salary £50 with board, residence, and washing.

SETTLEMENT OF WOMEN WORKERS, Canning Town.—Senior Resident Medical Officer (female) Salary £100, with board and residence. Also Qualified Assistant. Board and residence only

SOCIETY OF APOTHECARIES OF LONDON —Examiner in Medicine, also Examiner in Midwifery

ST MUNGO'S COLLEGE, Glasgow —Professorship of Medicine.

ST PANCRAS AND NORTHERN DISPENSARY, 126 Euston road.—Resident Medical Officer Salary £105 with residence and attendance.

SWANSEA UNION —Medical Officer and Public Vaccinator Salary and fees £450 per annum. Also Assistant Medical Officer Salary £200 per annum

THROAT HOSPITAL, Golden square, W —Junior House Surgeon (non resident). Salary at the rate of £100 per annum and lunch daily

UNIVERSITY COLLEGE, London.—Surgical Registrar

WEST HAM HOSPITAL, Stratford, E.—Junior House Surgeon. Salary £75 per annum, with board, residence, &c.

WEST LONDON HOSPITAL, Hammersmith road, W —House Physician and House Surgeon tenable for six months

WESTERN GENERAL DISPENSARY, Marylebone-road.—Second House Surgeon, unmarried. Salary £75 a year, with board and residence, and 10s a month for laundry

Births, Marriages, and Deaths.

BIRTHS.

MORRISON —On May 24th, at Brighton road South Croydon, the wife of Alexander Morrison, M R.C S, L.R C P, of a daughter

WELLBY —On May 29th, at 27th, St. Julian's Farm road, West Norwood, S E, the wife of Stanley Wellby, M.B Oxon, of a daughter

WOODMAN —On May 27th at New road, Rochester, the wife of William James Woodman, M R.C S, &c., of a son.

MARRIAGE.

WATSON—GREEN —On May 13th, at Algiers, first at the British Consulate and afterwards at the Church of the Holy Trinity, George Samuel Watson, M R.C S, of Tunbridge Wells, to Edith Sarah Green, of The Limes, Hurstpierpoint.

DEATHS.

MACLEROY —On May 19th at Oakford House, King's Teignton, South Devon, Arthur Lloyd MacLeroy, M A. Oxon., L.S A., L.A.H Dub., in his 49th year

SKIMMING —On May 23rd Robert Skimming, M.D, F R C S Ed, of Tudor Lodge, East Molesey, aged 58.

WATKINS.—On May 20th, Robert Webb Watkins, F R.C S, J P, of Towcester, aged 76

WILLIAMS —On May 21st, at 20, Windsor-place, Cardiff, John D Williams M.D, aged 36 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths

Notes, Short Comments, and Answers to Correspondents.

APHASIA OF HYSTERICAL ORIGIN.

Aphasia of hysterical origin is rare, though phenomena of an allied nature, such as aphonia and mutism of varying degrees, are not uncommon in hysteria Dr. Georges Guillain of Paris has published in the *Revue Neurologique* of April 30th a case of hysterical aphasia occurring in a man and showing several features of interest. The patient was a workman of temperate habits, free from syphilis, and in the enjoyment of good health In 1897 he heard of the death of his brother, which so prostrated him that he was obliged to take to his bed, after which he found himself incapable of walking for a period of 15 days. He then got well and was able to resume his work. Two years after he received bad tidings concerning a nephew. He had a violent altercation with his sister about this, and went to bed angry and excited, waking next morning with a violent headache and finding that he had lost power over his legs so that he could not walk. This condition had lasted for two months when he was admitted to hospital in March, 1900, and on examination he was found to present a slight hemiplegia of the right side of the body and complete aphemia (glosso-kinæsthetic aphasia of Bastian). His mind was clear throughout the present illness and his wife asserted that he never had lost consciousness or suffered from coma during the illness. For six weeks after admission there was paralysis of the rectal and vesical spincters. He could not well understand what was said to him. There was no dysphagia. He gradually improved after a few weeks' stay in a hospital and after six months he was able to walk. He could not move his tongue when asked to, but could give either hand or both hands when requested. But when asked to lower the hand he proffered the other hand, when asked to open the hand he opened his mouth, asked to close the hand he made no response, asked to place his left hand on his head he placed the right hand on the chin, and when told this was wrong he placed the left hand on the chin. Hearing was good. He could utter the words "Yes" and "No" and a few uncouth sounds of one or two syllables, but of no significance. He could not repeat words uttered in his presence or sing. He was ignorant of reading and writing and therefore could not be tested for knowledge of printed words. On being shown a picture of a horse and a bottle he nodded recognition when the correct name was given to each of these in his presence, but he turned away in disgust when the picture of a boat or of a house was shown. On being shown a clock and asked the time his reply showed that he confounded the hour and minute hands Shown a rhinoceros carved in wood he admitted it was not a lion or a bear, but said "Yes" when asked if it was a rhinoceros. On examination it was found that the right hand and arm were cyanosed and cold, and the same applied to the right foot and leg. With the dynamometer the right grip registered 16 kilogrammes and the left 32 kilogrammes. There was no disturbance of sensibility, and the stereognostic sense was normal. The tendon-reflexes (knee-jerk, tendo-Achillis-jerk, and elbow-jerk) were exaggerated on the right side. Gait, at the termination of his stay in hospital, was normal. There were no signs of visceral or organic disease. Babinski's great-toe reflex was present, and this confirmed the diagnosis of hysterical hemiplegia and aphasia which was made. Light and colour perception was normal, and the general health was good. Dr. Guillain refers to cases of aphasia and word-deafness of hysterical origin recorded by Raymond, aphemia of similar origin recorded by Janet and Bernheim, and agraphia of hysterical origin recorded by Charcot, Déjerine, and others, which have interesting analogies with the present case.

KELENE.

To the Editors of The Lancet.

Sirs,—I shall feel grateful to any of your medical or dental readers if they will give me their experience of the usefulness of kelene as a general anæsthetic when administered by means of a suitable face-piece I am a country practitioner with no assistance and therefore fight shy of chloroform as much as possible. How long can a patient with safety be kept under kelene? I understand narcosis is produced as quickly as with nitrous oxide.

I am, Sirs, yours faithfully,
May 28th, 1901. M. W. D.

"PLACE OF RESIDENCE FOR A RETIRED SURGEON."

To the Editors of The Lancet.

Sirs,—In The Lancet of March 30th, p. 937, "P. P.," a retired surgeon, asked for information as to a good residence to which to retire and was advised, I think, to try Branksome, near Bournemouth. With regard to the last-named I have been there twice, on account of my health, once when it was so wet and cold that I was obliged to leave and once when it was so wet and hot that I was likewise obliged to make my exit. May I suggest the suburbs of some good city, such as Worcester, as a trial. Malvern (within eight miles), and especially West Malvern (about 1000 feet above sea level), are worth knowing. At the latter there is excellent accommodation at the Westminster Arms, kept by Mr. Martin, as well known in America as in England I am told. Dr. Charteris in the chief work on health resorts states, I remember that he knows no place better than Malvern to recuperate jaded health in certain states. Were it not for the fact that the local authorities are in a somnolent condition, that scutch was not burning all day in private gardens, and that the public gardens were not closed during half of the year, I believe it would be one of the most favoured places in England.

I am, Sirs, yours faithfully,
Worcester, May 21st, 1901. W. Woodward, M.D St. And.

SUGGESTIONS WANTED.

To the Editors of The Lancet.

Sirs,—I am a medical man, aged 34 years, married, a very moderate drinker, an athlete, and in extremely good muscular condition and well developed in every respect, yet the curse of my life is hyperidrosis, the very slightest exertion causing me to sweat most profusely. I have limited my fluid to six ounces per day for days on end without any benefit. I have given every drug in the British Pharmacopœia a fair trial without benefit. What is it, and what can I do? I am an open exponent of any theory existant, and would be eternally grateful for any suggestions which would bring me relief.

I am, Sirs, yours faithfully,
May 28th, 1901. Veldt.

HEPATIC ENLARGEMENT IN TYPHOID FEVER.

To the Editors of The Lancet.

Sirs,—Can any of your readers refer me to literature bearing upon hepatic enlargement in typhoid fever?

I am, Sirs, yours faithfully,
May 27th, 1901. D. A. A.

THE PREVALENCE OF RESPIRATORY DISEASES NEAR THE METROPOLIS.

To the Editors of The Lancet.

Sirs,—I am unable to lay my hands on the Registrar-General's reports which some of your readers probably have at their fingers' ends. Could some one kindly inform me of the various districts round London within a nominal hour's journey where respiratory diseases are least prevalent? What I want to know especially is the best place or places for a patient to live in who suffers from bronchitis every winter.

I am, Sirs, yours faithfully,
May 28th, 1901. X. Y. Z

◆

General Practitioner would be glad to receive advice as to the best method of treating asthma which comes on in the early hours of the morning—from 2 to 5 a.m.—in connexion with gouty nephritis in a man, aged 65 years. There is marked albuminuria with casts, the heart is weak and irregular, and there is a little œdema of the legs

Mr. H. Smith.—We have noticed the Progressive Medical Alliance in properly abusive terms on several occasions, but the "experts and specialists" who do the work of the Alliance are not really medical men and women and cannot be removed from a Register on which they have no place.

C. W. W.—The institution in question is founded for the practice of mischievous quackery. It is astonishing that respectable newspapers can be found to insert such advertisements.

Hampshire—Six shillings is a fair price. The essential point is that all the medical men in the neighbourhood should be absolutely agreed upon the point.

Communications not noticed in our present issue will receive attention in our next.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments)

The Lancet Office, May 30th, 1901

Date	Barometer reduced to Sea Level and 32° F	Direction of Wind	Rainfall	Solar Radia in Vacuo	Maximum Temp Shade.	Min. Temp	Wet Bulb	Dry Bulb	Remarks at 8.30 a.m.
May 24	30 28	N.E	...	117	71	47	52	60	Fine
" 25	30 15	N E	...	115	70	49	54	60	Fine
" 26	30·02	N.	...	85	63	54	52	55	Overcast
" 27	29 87	W.	...	120	74	51	53	62	Fine
" 28	29·93	S W.	...	109	77	53	57	64	Fine
" 29	29 80	S	...	127	81	59	60	60	Hazy
" 30	29 70	S W.	...	110	69	61	60	65	Cloudy

During the week marked copies of the following newspapers have been received:—*Mining Journal, Leeds Mercury, Local Government Journal, Windsor and Eton Express, Vancouver Daily Province, City Press, Liverpool Daily Post, Reading Mercury, Yorkshire Post, Hertfordshire Mercury, Cornish Echo, Shanklin Gazette, Weekly Free Press (Aberdeen), Sunday Special, Lancaster Guardian, &c., &c.*

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (3rd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

TUESDAY (4th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

WEDNESDAY (5th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.).

THURSDAY (6th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

FRIDAY (7th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

SATURDAY (8th).—[illegible] St. Thomas's (2 P[illegible] Charing-cross (2 [illegible] London Throat (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

WEDNESDAY (5th).—OBSTETRICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Dr. Galabin, Dr. Donald (for Dr. Fothergill), Dr. H. R. Andrews, and Mr. S. Boyd (introduced by Dr. A. Routh). Paper:—Dr. Donald: Fibroid Tumours complicating Pregnancy and Labour.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (3rd).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. J. F. Payne: Consultation. (Skin.)

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Mr. S. Edwards: Affections of the Prostate.

TUESDAY (4th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. W. Ewart: Consultation. (Medical.)

WEDNESDAY (5th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. E. W. Roughton: Consultation. (Surgical.)

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. Horton-Smith: Aortic Aneurysm.

THURSDAY (6th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Consultation: (Surgical.)

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Mr. C. B. Keetley: Hip Disease.

CHARING-CROSS HOSPITAL.—4 P.M. Dr. Murray: Medical Cases. (Post-Graduate Course.)

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Dewar: The Chemistry of Carbon.

FRIDAY (7th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. H. Tilley: Consultation. (Throat.)

EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used

MANAGER'S NOTICES.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them! Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, MR. CHARLES GOOD, THE LANCET Offices, 423, Strand, London, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

Communications, Letters, &c., have been received from—

A.—Mr. T. B. Adam, Lower Edmonton; Association for Pure Vaccine Lymph, Lond.; Messrs. Allen and *Hanburys*, Lond.; Dr. J. R. Armstrong, Treorchy; A. D. L. T.

B.—Mr. J. Bland Sutton, Lond.; Dr. T. Buzzard, Lond.; Messrs. W. H. Bailey and Son, Lond.; Mr. S. H. Brown, Allerton; Mr. C. A. Ballance, Lond.; Mr. John Bland, Lond.; Messrs. Burgoyne, Burbidges, and Co., Lond.; Mr. L. A. Bidwell, Lond.; T. B. Browne, Ltd., Lond.; Messrs. Blakiston, Son, and Co., Philadelphia; B F. T.; Messrs. Bates, Hendy, and Co, Reading; Messrs. Boulton and Paul, Norwich.

C.—*Mr. J. Jackson Clarke*, Lond.; Dr. E. H. Colbeck, Lond.; Messrs. J. and A. Churchill, Lond.; Mr. Duncan Cameron; Mr. F. G. H. Cooke, Lond.; Mrs. E. M. Champness, Rochdale; Consultative Medical and Surgical Institution, Birmingham, Secretary of; Chester General Infirmary, Secretary of; County Asylum, Dorchester, Medical Superintendent of.

D.—Messrs. Down Bros, Lond.; Mr. F. C. Daèmus, Green Village, N.J., U.S A.; Dr. J. N. Desai, Ahmedabad, India; D. M.; Mr. H. Davenport, Lond.

E.—Dr. G. L. Eastes, Lond.; Messrs. Eaton and Bulfield, Lancaster; Messrs. Eason and Son, Dublin.

F.—Messrs Ferris and Co, Bristol; Mr. W. T. Freeman, Reading.

G.—Dr. J. C. Griffiths, Market Rasen; Dr. W. Gordon, Exeter; Great Eastern Railway Co, Lond., Dr. P. Guijénot, Paris.

H.—Dr. J. Hurd Wood, Whitmead Hill; Mr. H. E. Hooper, Lond.; Messrs. J. Haddon and Co., Lond., Mr. P. Haack, Berlin; Dr. Henry Harper, Nottingham; Messrs N Hutter and Son, Lond.; H. E B. D., Hospital for Sick Children, Newcastle-on-Tyne.

I.—*Isle of Wight County Asylum*, Clerk of.

J.—Mrs. T. Johnstone, Red Carr.

L.—Liverpool Stanley Hospital, Hon. Secretary of; Messrs. Lee and Nightingale, Liverpool; Dr. B. Lacquer, Wiesbaden; Messrs. Lee and Martin, Birmingham.

M.—Mr. W. Martindale, Lond.; Medical Society of Victoria, Melbourne, Hon. Treasurer of; Morison's Advertising Agency, Hull; Marowitz Manufacturing Co, New York; M.D., Painswick; Mr. J. F. Macfarlen, Edinburgh; *Messrs.* T. McLean, Lond.; Mr. M. Mitchell, Tullaroan; Manchester Medical Agency, Secretary of; Messrs. E. E. Mayer and Co., Lond.; Metropolitan Borough of Lewisham, Clerk of; Dr. E. W. Martin, Lond.; Mr. C. Mettling, Paris.

N.—Mr. J. C. Needes, Lond.

O.—Messrs. Orridge and Co., Lond.

P.—Mr. F. E Potter, Lond.; Mr. Y. J. Pentland, Edinburgh; Messrs. C. Pool and Co., Lond.; Messrs. Peacock and Hadley, Lond.

Q.—Queen's Hospital, Birmingham, Secretary of.

R.—Dr. J. Roche, Kingstown; Mr. B. R. Rao, Hassan, India; Dr. C. Reinhardt, Ipsden; Royal Surrey County Hospital, Guildford, Assistant Secretary of; Mr. A. C. Roper, Exeter; Royal Cornwall Infirmary, Truro, Secretary of.

S.—Messrs. Street and Co., Lond.; Swansea Union, Clerk of; Miss C. Spicer, Woodford Green; Smith's Advertising Agency, Lond.; Secretary, Tonbridge; Dr. D. Sloan, Catrine; Dr. J. Lindsay Steven, Glasgow; Stockport Infirmary, Secretary of; Scholastic, Clerical, &c., Association, Lond.; St. Mungo's College, Glasgow, Secretary of; Mr. H. R. Salmon, Lond.

T.—Dr. H. G. Thompson, Lond.

W.—Dr. A. Wauchope, Glasgow; Professor A. E Wright, Netley; Mr. A. P. *Walters*, Bristol; Mr. R. Walker, Aberdeen; Dr. D. Walsh, Lond.; Messr J. Wright and Co, Bristol Messrs. W. Wood and Co., Lond Messrs. Willing and Co., Lond Wm. Whiteley, Ltd., Lond.

Letters, each with enclosure, are also acknowledged from—

A.—A. S.; A. C.; A. W. B., A. A. M.; A. W. S.; A. V. W.

B.—Mr. T. H. Brocklehurst, Steeple Claydon; Brazilian Consulate (The), Lond.; Miss E P. Buller, Southampton; Mrs. B.; Lond.; Mr. W. H. Barrett, *Chichester*; Mr. W. A. Bradford, Lond.; Messrs. Burroughs, Wellcome, and Co., Lond.

C.—Mr. J. P. Conway, Newport; Dr. R. H. Crowley, Bradford; Crookesbury Sanatorium, Farnham; Mr. A. M. Cato, Lond.; County Asylum, Whittingham, Treasurer of; Surgeon A. W. Campbell, H.M.S. *Lizard*, China Station; C. P. O.; C. R. G.

D.—Mr. M. E. Dovaston, Hendon; Messrs. Deacon and Co., Lond.; Doctor, Lond.

E.—Eye and Ear Hospital, Tunbridge Wells, Hon. Secretary of; Dr. M. L. Emerson, La Colorado, Mexico; E. H.

F.—F.R.C.S., Lond.; F. L. L.

G.—Mr. J. Gray, Edinburgh; Mr. T. Gray, Pontypridd; Guest Hospital, Dudley, Secretary of; Dr. W. G. Galletly, Northwold; Mrs. A. Gordon, Newtimber; Messrs. Gilyard Bros., Bradford; Dr. E. Goodall, Carmarthen; Mr. E. Glossop, Newton *Abbot*; Graduate, Cambridge.

H.—Mr. G. H. Hunter, Haughley; Mr. J. Heywood, Manchester; Mr. T. F. Howell, Cardiff; Holloway, &c., Dispensary, Secretary of; Messrs. Henderson and Birkett, Gateshead-on-Tyne; H. J. M.; H. E. G.; Holne Chase, Bexhill on-Sea, Proprietor of.

J.—Mr. G. M. Jones, Alton; J. I.; Joint Counties Asylum, Carmarthen, Medical Superintendent of; J. M. C; J. H. J. S. H.; J. J. H.; Jones, Lond.

K.—Lieutenant-Colonel Knagg Cheltenham; Mr. D. S. Kemp Lond.; Mr. N. F. Kendall, Chiddingfold.

L.—Messrs. Linklater and Co. Lond.; Miss Low, Lond.; L. R. L. N. H.; L. F.

M.—Messrs. Marshall and Elvey Lond.; Dr. M., Leeds; Messrs. Macdonald Bros., Lond, Dr. R McKenzie, Cheadle; M. S. M. D.

N.—National Hospital *for* Diseases of the Heart, Lond., Secretary of; Mr. F. C. Needes, Lond.

P.—Plympton House, Plympton, Secretary of; Porcherine, *Ltd.*, Lond.; P. S. W.

R.—Mr. B. T. Read, Odiham; Mr. E. J. Reid, Lond.; Messrs. Roger and Chernoviz, Paris; Dr. T. H. Redwood, Rhymney; Dr. T. W. Russell, Birmingham; Royal United Hospital, Bath, Secretary of; R. W. *D*; Mr. F. Rhodes, Catford.

S.—Mr. D. Samuel, Aberavon; Messrs. T. and H. Smith and Co., Edinburgh; Staffordshire Drug Co, Roseville; S. G. W., Messrs. M. Samuel and Co., Lond.; Mr. D. Sen, Purneah, India.

T.—Mr. J. Thin, Edinburgh; Dr. W. A. Turner, Lond.

W.—Rev. H. H. Warden, Toronto; Western General Dispensary, Lond., Hon. Secretary *of*, W. *D*; Messrs. Willows, Francis, and Butler, Lond.; W. H. B. C.; West Ham Hospital, Secretary of; Dr. S. Wellby, Lond.; W. D; Mr. J. Williams, Bradford; Dr. W. M. C Watson, Harrogate; Messrs. H. Wilson and Son, Lond.; W. J. W.

X.—X. Y. Z, Leeds.

EVERY FRIDAY. **THE LANCET.** *PRICE SEVENPENCE.*

SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.	
One Year	£1 12 6
Six Months	0 16 3
Three Months	0 8 2

TO THE COLONIES AND ABROAD.	
One Year	£1 14 8
Six Months	0 17 4
Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

ADVERTISING.

Books and Publications ...	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 6
	Every additional Line	0 0 6

Quarter Page, £1 10*s.* *Half* a Page, £2 15*s.* An Entire Page, £5 5*s.*
Terms for Position Pages and Serial Insertions on application.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris.

ABSTRACT OF

An Address

ON

SOME OF THE ANATOMICAL ASSOCIATIONS OF THE KIDNEYS, FROM A SURGICAL POINT OF VIEW

Delivered before the Cardiff Medical Society on June 6th, 1901,

BY EDMUND OWEN, F R C S ENG ,
SURGEON TO ST MARY S HOSPITAL, LONDON

NERVE ASSOCIATIONS OF THE KIDNEYS

IN a large proportion of cases of renal disease the most prominent symptom is the subjective one of *pain* At any rate, it is usually this which brings the patient to the surgeon, and makes the latter set to work to discover objective signs which may lead him to a correct conclusion as regards its cause In speaking of the anatomical associations of the kidney, therefore, particular attention must be paid to the nerves, which not only associate the kidney with the neighbouring parts, but also keep the kidneys in harmonious working with each other The nerves are derived from the sympathetic plexus in front of the upper part of the abdominal aorta, and into this plexus run branches of the splanchnics, the pneumogastrics, and also, indirectly, of the spinal nerves These various filaments join in an entanglement from which the instruments of the most skilled dissector are unable to sort or to unravel them, and each abdominal viscus takes filaments from this interlacement according to its needs Remembering that the testis was developed in close association with the kidney, it is not surprising that the nerves of the renal plexus are intimately connected with those of the spermatic plexus And to this association of nerves is due the explanation of the pain in the testicle to which renal calculus often gives rise

With an innervation scheme in which medullated and sympathetic filaments are thrown with ganglia into a central pool from which each viscus helps itself, as it were it can hardly be matter of surprise if the result does not always work out quite satisfactorily in a clinical sense Of course, such an arrangement of nerve tissue could not possibly suffice for supplying motor influences to the voluntary muscles of the body which have to contract with energy and precision, nor would it serve for the prompt and precise conveyance of sensory stimuli to the brain, but for quiet-going viscera in smooth working-order the scheme answers perfectly Still, when disturbance arises in the affairs of any individual viscus, confusion is apt to occur, and errors of diagnosis and treatment are apt to ensue in consequence Supposing that a calculus is forming in one kidney, a somewhat urgent and disquieting message is transmitted to the solar plexus This is an unwonted occurrence, and the plexus is as unprepared for its reception and as incompetent to deal with it as, in somewhat similar circumstances, was that mixed department in Pall Mall known as the War Office All is muddle and confusion , and when an explanation is demanded as to why and where the disturbance arose, and as to the precise cause of it, answer comes that it was on this side or on that side—it may be right and it may be wrong In the clinical case which I am about to relate the answer was as incorrect as it could be —

A healthy looking man 36 years of age was admitted to S Mary s Hospital on Oct 7th, 1897 The notes say that he first felt dull pains in his back 10 years previously, and that about five years later he had a bad attack of renal colic on the left side , that he had several like attacks each year (which were always associated with vomiting), and that he had passed blood and many small calculi on various occasions For the purpose of this paper, I wrote the other day to the patient for his own account and this is what he said —" These later attacks were very severe and always confined to the right side, and relief was only procurable by applying linseed poultices and turpentine to the back, and then to the front; the marks of which were on me when I was examined " Yes, this was so at the time of his admission the skin of the front and back of the right renal region was deeply stained by the marks of fomentations, and the patient was quite satisfied in his own mind that the small calculi, which he had passed from time to time, had come from the *right* kidney Objective signs gave no help in the matter of localisation On Oct 13th the bladder was sounded, with a negative result, and a few days afterwards I explored the right kidney from behind, finding it larger than normal but otherwise healthy The patient, a highly intelligent man, was, like myself, a good deal disappointed at this blank operation , but he promised to come into hospital again in a few weeks so that I might explore the other kidney He was a bank clerk, and he fully understood that he had on this occasion, at any rate, made a mistake in his calculation

Faithful to his promise, he came back towards the end of the following month, saying that since the operation he had been " perfectly comfortable," but that on one occasion he had passed some blood On Nov 29th I cut down upon the posterior surface of the *left* kidney, extracting a branching, coral like calculus and several small calculi, and also evacuating a renal abscess of considerable size The stone was phosphatic, and it weighed over 400 grains Seeing how extensively this kidney was diseased, I hesitated whether I should take it away or not, but eventually decided to give it a chance So I deluged its interior with hot sterilised water, and in this way washed out some more small stones A drainage tube was introduced into the kidney and the surface wound was closed Whilst in the hospital the man occasionally passed small calculi per urethram ; his urine contained some pus, and at times a little blood There was, moreover, constant leakage from a sinus which persisted in the loin He left the hospital in January fairly well, except for the annoying sinus This sinus continued to leak ; so he came into the hospital again in February, 1898, in order that I might relieve him of that annoyance by removing the kidney But when I examined him under an anæsthetic, and had explored the kidney with my finger, I had not the heart to perform the nephrectomy, as I found that a considerable amount of firm and apparently healthy tissue still remained So I chased out a few more small stones, and determined to give the damaged organ yet another chance The man stayed only a few days in hospital, and shortly afterwards resumed work at the bank, where he continued at business for a little over a year, the sinus oozing all the time into pads of absorbent dressings To use his own words, ' After the Easter holidays, 1898, I continued daily to travel up and down to the City, without a single exception, changing the bandage at midday, and on going to bed my wife used to thoroughly wash and irrigate the wound and to pass a probe down I never became offensive, and I had fairly good health until April, 1899 Then I came to see you when you immediately operated, and removed the kidney, April 17th, 1899, after which the wound healed completely " He is now perfectly well, his large right kidney being quite up to the work thrown upon it—even after a 25 mile bicycle ride

An interesting feature of this case is that though the man was working in a City office through the hot months his fellow clerks never noticed any unpleasant odour , if an intelligent man with a renal fistula takes care of himself, his wound need not become septic or his leaking urine offensive

I am well aware that it is not a very unusual occurrence for a surgeon to operate upon the wrong kidney in his search for a stone , but I do not think that a more conspicuous instance than this, of the untrustworthiness of the subjective symptom of *pain* in renal calculus, is likely to be forthcoming Subjective signs are proverbially untrustworthy through the whole range of surgery , but in the case of the kidneys, which have drawn their nerves blindfold from the epigastric pool, it is small wonder if, in the absence of objective signs, patient and surgeon are sometimes led by them to make serious mistakes

VASCULAR ASSOCIATIONS

In one matter in particular the vascular associations of the kidney are important from a surgical as well as from a medical point of view Let us take, for instance, the case of a man with old standing stricture of the urethra that is to say a surgical case of damaged kidneys, or, if you will, a man with early Bright's disease—a sufficiently vague term The kidneys are just able to do the amount of excretory work which is demanded of them, but they have absolutely no reserve of physiological energy. The man indulges in a drinking bout, or, out at work, he gets wet through, and is suddenly attacked with sub-acute nephritis; and, perhaps, with complete suppression of urine. What is to be done for him? The intestinal canal and the skin are always ready to assist the kidneys if properly called upon, and, therefore, a full dose of calomel and jalap, and a hot-air bath may suffice to help the comatose patient over this very serious crisis. But there is something yet that may be done towards relieving the vascular engorgement of the kidneys and putting them in working order once more. The practitioners of bygone days would have resorted to venesection, and I am not sure that I should not do so myself, for I am a keen advocate for this "old-fashioned remedy out of date," as the late Dr. Hare called it. But the method to which I desire here to refer is the application of a score of leeches, or the efficient employment of wet or dry cupping over the loins.

If we take down from the dusty shelf the handbook of "Anatomy" which was so familiar to us in our student days—the only book in our old professional library, by the by, which has not become hopelessly out of date—we shall find (what we have never forgotten) that the kidney is supplied by the renal artery, and that the mass of the loins is supplied by the lumbar branches of the abdominal aorta. And from this brief description it might be taken as implied that the vascular systems of these two areas are separate and distinct. But if it were so, the application of leeches or cupping-glasses to the loins could have but very slight influence upon the renal engorgement. In his valuable work upon the "Arteries" which Robert Harrison published in Dublin in 1828, he specially called attention to the fact that the lumbar branches of the aorta helped in the supply of the kidneys—that is to say, that a free communication took place between the vessels of the abdominal wall and those of the abdominal viscera. Sir William Turner also, when a Demonstrator of Anatomy in the University of Edinburgh, did a great deal of work at this subject, publishing the results of his injections and dissections in the *British and Foreign Medico-Chirurgical Review* of 1863. He gives an account of the parietal and visceral anastomoses from diaphragm to perineum, but just now we are concerned with the scheme only so far as it affects the kidneys. The renal artery from the abdominal aorta having given the kidney all that it needs, sends branches through the fibrous capsule to join in an extensive anastomosis which the Edinburgh demonstrator named the sub-peritoneal arterial plexus. The chief vessels in this anastomosis of parietal with visceral arteries, are the phrenic and the lower intercostal arteries, and the upper lumbar branches of the aorta. Together with this arterial anastomosis there is, of course, a free communication between the venous plexus of the parietes and that of the kidney. And thus it comes about that the application of leeches or cupping-glasses to the loins, has an equally direct and important influence in the relief of renal engorgement. A knowledge of this piece of anatomy explains, moreover, how it is that a turpentine fomentation or a mustard plaster, by causing a dilatation of the surface-capillaries, and getting them filled from the renal vessels, thereby relieves the congestion of the kidneys, and produces a valuable diuretic effect.

ASSOCIATIONS WITH THE COLON.

I wonder if in Glamorganshire surgeons have ever met with such experience as that through which I have at times, unhappily, had to pass in London, of several of his cases, hospital cases and private cases, actually or apparently going wrong together? When clinical records, bedroom reports, thermometric charts and x-ray shadow-prints all seem to be pointing their fateful fingers at one and the same time! So far as my personal knowledge goes, I am apparently the only operating surgeon in London who has met with this experience; and I am heartily glad of it, for I would not wish my worst enemy to undergo it. The feeling, as I have experienced it, is such as to make a surgeon wonder if he did not, after all, commit a grievous error in the choice of his profession, and to induce him at once to throw it up. I ask if anyone in this part of the Principality has ever gone through such sad experience, because I am now amongst my Celtic congeners, and I think it just possible that the Celtic temperament may have something to do with so unhappy a state of affairs. Venturing to assume from your silence that at least one of you has known similar fits of depression in connexion with his professional work, I at once feel less lonely; and, being thus enabled to speak in the first person plural, instead of as a solitary individual, I will ask if we are to explain the condition on the theory of the possible inheritance of some mysterious psychic legacy from an ancestral Druid of dyspeptic nature, who, becoming discredited in his profession because of his having persistently made wrong prognoses from the flight of the birds, or from the curl of the smoke of his sacrificial fires, fled despondent from his shady grove and turned his wasting energies perchance into the more honest and healthful paths of agriculture.

At any rate, just before the last period of the gathering of the sacred mistletoe, I was passing through such a time of trial as that just referred to, and when my cup of clinical misfortune seemed already full, I became associated with a peculiarly calamitous case, which I will report to you after I have made one more digression. Before relating it, I would ask how it is that in London the operative experience of almost every surgeon is apparently so extremely happy? The published reports of contemporary surgical practice seem to indicate an unvarying and almost monotonous record of success. Nevertheless, when I am reading some professional essay which is based upon a series of universally successful cases, which boldly conveys, or like an Æsop's fable ends up with a puffy *Moral*, I am now and then tempted to wonder if in the compilation of it the diplococcus of the imaginative faculty has not here and there been allowed to get the better of the germ of truth. But about this "germ of truth." It is strange how little we hear of it now, even in laboratory work. I understand that it is most difficult of cultivation; that it will not grow in hay-broth or gelatin, or upon fresh-cut slices of potato. So delicate is it that there is a risk of its altogether disappearing out of cultivation, like the beautiful pseudo-narcissus, or Tenby daffodil, that plant so dear to our illustrious friend Dr. Vachell, who, in the twenty-sixth volume of the Cardiff Naturalists' Society, tells us that this, our only native narcissus, which used to thrive so well in South Wales, has now almost entirely disappeared from the land it loved, by reason of the attacks made upon it by scientific and commercial botanical thieves, who came from London and other parts of the adjacent country of England in search of the precious bulbs. Let us hope, for the sake of the Principality, that the day may be far distant when English bacteriologists and other men of science will come to Wales in search of the few remaining specimens of the germ of Truth!

This is the case to which I was referring:—On the first day of last December I saw with my colleague Dr. Sidney Phillips a clergyman, 42 years of age, an unusually well-made, muscular man, who, except for a somewhat "worn" expression, looked as if he were in perfect health. This is the history that Dr. Phillips gave me of his case: "He has always enjoyed good health till the beginning of the spring of 1900, when he began to get pain in the back when bicycling. On July 3rd, 1900, he travelled by train to Llandudno from Northampton and experienced pain on the journey, and this became more severe in the evening. Since July he has been constantly in pain, but it has been most severe in the evenings and nights. About the 6th of October the pain became a good deal worse; he is doubtful if exercise brings it on, but he feels it more when he has had a railway journey. The pain goes into his left thigh and testis. He thinks that he has never had hæmaturia The urine deposited phosphates with heat; there was no albumin in it or sugar. He used to weigh 13 stones, but on October 17th, 1900, his weight was only 12 stones 8 pounds. He had 'gravel' at the age of 25, and since then he has not held his water well, never going through a night without having to get up to pass urine. He does not think the frequency of micturition has become more marked of late." Dr. Phillips examined him under an anæsthetic on Oct. 17th, as he held his abdominal muscles so tense on the left flank that no deep palpation was possible; but nothing abnormal could be detected, neither fulness nor tumour. On Dec. 1st Dr. Phillips received a letter from the medical man who had been looking after him in the country in which it was stated that there had been blood in the urine on several occasions. The opinion of the medical man was that the cause of the trouble was renal calculus. When I examined him there seemed to be so much tenderness in the front and back of the lumbar region that I was not able to make a thorough exploration. The muscles were rigid and I could not thrust my fingers into the renal region. The patient told me of pains running into the thigh and into the testis, and I also arrived at the conclusion that he probably had a stone in his left kidney. Accordingly, on Dec. 5th in the presence of Dr F[illegible] made an incision from the tip of the last rib to [illegible] border of the erector spinæ, but on cutting dow[illegible] posterior surface of the kidney I could detect no stone. I then loosened the connexions of the kidney and brought it out on to the surface, and still finding no stone I incised the outer border of the kidney and introduced my finger into the interior, but with a like negative result Greatly disappointed, I closed the wound, inserting a gauze plug which passed into the interior of the kidney.

Subsequently to the operation the patient suffered considerably, so that several injections of morphia had to be given him But althougt [illegible] of the wound remained [illegible] dition caused great anxiet[illegible] nothing to suggest that his failure to improve was due to septic causes, but he became more depressed and feeble day by day Rectal stimulation was resorted to, as was also the intravenous injection of a hot saline solution; but all to no purpose. He died about midnight on Dec 8th On the afternoon of that day I was examining for the Bachelor of Surgery Degree of the London University, and during an interval in the examination I told my colleagues how a splendidly developed man was slipping through my fingers after a disappointing operation for supposed renal calculus. My co-examiners were human and sympathetic, and one of them remarked that the unhappiness of a case of this sort is sometimes greatly softened by the disclosures of the post-mortem examination And so it was here; for the [illegible] owing into the [illegible] of the kidney, [illegible] ere so hidden in the [illegible] vault as not to be easily recognisable, though one of them was as large as a small cocoanut "The kidney was found to be quite normal and only showed the incision of the operation"

[illegible]

did not exist, was most welcome to everyone concerned!

From a surgical point of view, the most important of the anterior relations of the kidneys is certainly the large intestine—the ascending part of the colon lying in front of the right kidney, and the descending part in front of the left

On New Year's Day of 1895, a man, aged 55 years, was admitted into the Thistlethwayte Ward of St Mary's Hospital. He looked very worn and ill, and he remarked that he had lost four stones in weight during the past three years He said that his troubles began about four years [illegible] e right loin, which some[illegible] but generally shot down [illegible] me and went irregularly, lasting six or ten minutes and disappearing completely between the attacks He had steadily got worse, and a little more than a year ago he went into a large London hospital, where the surgeon, under whose care he was, told him that his distress was due to the fact that he had a "floating kidney," and that it ought to be cut down upon and stitched in its proper place To this operation he said he submitted, and a long, linear scar running obliquely over his right lumbar region seemed to confirm this statement The man further said that the very day after that operation he had recurrence of his old pains as severely as ever, and that on informing his surgeon of this, he had received the explanation that the "kidney must have broken loose again" From that moment it was recognised that the operation had produced no improvement whatever [illegible] which were steadily increasing t[illegible] tion upon the kidney, continued [illegible] that when he applied for a /mis[illegible] he compared them to "a thou[illegible] been troubled with loose, blood stained actions of the bowels On examination, a circumscribed tumour could be felt deeply in the region of the ascending colon, well above the level of the cæcum It was hard and tender, and was evidently the starting point of all his pains Whilst examining this mass, it was noticed that distended pieces of intestine in the neighbourhood were struggling to rid themselves of a collection of gas which was apparently divided up into hard, ball-like masses Indeed, so vigorously was the peristaltic action being carried on, that the gas was locked up in the segments of the bowel under such tension as to convey at a first touch, the idea of the balls being solid. But they were resonant on [illegible] presently changed their position or dis[illegible] The man was given to understand that [illegible] he had a cancerous mass which was blocking his bowel, and that though, possibly, it could not be removed, still some operation might be performed with the view of getting the contents of the bowel beyond the blockage, or of securing for them an easy and painless outflow.

On Jan 4th, therefore, a free incision was made through the right semilunar line, and a hard mass of the size of the fist was found in the colon as it ascended in the renal region I proposed short-circuiting the ileum with the colon beyond the obstruction, but on one of my colleagues urging that this could afford the patient but brief or imperfect relief, I resected the cancerous bowel and connected the divided ends of the colon by a Murphy's button. The growth proved to be a columnar epithelioma which almost entirely blocked the passage Below the obstruction the muscular wall of the intestine was greatly thickened, with the design of forcing onwards the liquid and gaseous contents Unfortunately the man died. On the evening before his death there was a slight escape of feculent fluid from the wound, and the conclusion formed was that the splice was not watertight At the post-mortem examination it was found that a perforation had occurred upon the distal side of the bowel, where the thin intestinal wall had pressed against the edge of the button. The man had been so weak, however, when the discharge was noticed, that it was not considered practicable to open up the wound and examine for the seat of the leakage

Having told you that this case ended fatally because of the edge of the metal button causing a perforation of the bowel (for the occurrence of which I readily accept the blame) it is obvious that I do not cite this report with any thought of building u[illegible] it with the idea of ma[illegible] surgeon who, about a [illegible] carcinoma of the asc[illegible] But I bring it forth f[illegible] well illustrates my Paper.

A Clinical Lecture

ON

RETENTION OF URINE.

Delivered at University College Hospital on May 20th, 1901,

By CHRISTOPHER HEATH, F.R.C.S ENG,

CONSULTING SURGEON TO THE HOSPITAL AND EMERITUS PROFESSOR OF CLINICAL SURGERY.

GENTLEMEN,—I am going to speak to you this afternoon on a disorder which must be interesting to every medical man and of which you may very likely have to treat cases directly you enter upon practice. By retention of urine is meant a condition in which the bladder does not extrude its contents I do not intend to day to speak about the kidney; I am confining my attention to retention of urine by the bladder, and it will be convenient to consider the male bladder first of all and to speak of it at different ages

In children you occasionally meet with retention from a tight foreskin When this occurs, the infant very soon after birth is noticed not to be passing urine or only very little, and possibly the foreskin is what is termed "ballooned" The treatment is simply to dilate the orifice with a pair of forceps, or, if you choose you may circumcise the child; but, in my opinion, dilating the orifice does just as well and an "operation" is avoided. Later in life a child, if it does not pass urine, may have a calculus in the urethra Calculi are formed, as we know, even before birth, and occasionally a small uric acid calculus passes into the urethra and becomes fixed there. The narrowest point of the urethra is at the meatus, and you may anticipate that the stone if it lodges at all will be found near the meatus. I remember a case which was brought here by a medical man, who had not detected a calculus which was present because he had not put a probe into the orifice. After, however, I had done that I found a little calculus which was easily removed by a pair of forceps. It has been suggested to make a nick in the orifice, and, though it is but rarely necessary to do this, you should remember to make the nick downwards where you will do no harm; if you cut upwards you will be cutting into the vascular tissue of the glans.

There is one form of retention of urine in the child concerning which you must be on your guard, and that is the possibility that a thread may have been tied round the penis. This happens generally in children who have been punished for wetting the bed, the child in desperation tying a thread round his penis to prevent this occurrence. I believe, however, that it may happen in other ways. I had a child brought to me at my house with the glans penis hanging merely by a few threads of cellular tissue. I accordingly *snipped the glans penis away with a pair of scissors and* found that there was a long, light-coloured hair around the part. We could not get any history and I did not wish to pursue inquiries. The entire glans, however, is in the College of Surgeons Museum, and the patient recovered and passed urine all right.

In considering retention in the adult I will take, first, the case of the young adult, and in most of these instances retention is the result of gonorrhœa. It may be in the early acute stage of gonorrhœa, or it may be in the later stage when the inflammation has travelled up the urethra and affected the prostate. In the early stage one is seldom consulted, because the *ardor urinæ* is naturally looked upon by the patient as incidental to his complaint. When it comes to the prostate being inflamed and enlarged the patient may have retention and then the case becomes serious. So that in all cases of retention in the young adult you will do well to place your finger in the rectum to see if there be a tender and somewhat enlarged prostate. You may detect the presence of matter, and if so you may open the abscess into the rectum or through the perineum. Perhaps you may not be able to detect matter which, however, is present, and then it may be necessary to pass a catheter. I do not know that it matters very much which kind of catheter you use—the English gum-elastic catheter of about No. 7 without the stylet is what I prefer. If the catheter has been introduced carefully it will probably pass the prostate, and it may and very likely will burst the abscess into the urethra and do all that you want for the case. That, of course, is the form of retention of urine which we meet with in the later stage of gonorrhœa, but let me remind you that prostatitis may take place from other causes. Sitting on damp seats or on wet grass may set up a prostatitis without the slightest reflection upon the patient's character.

Another of the commoner forms of retention of urine met with in gonorrhœa is, I think, the spasmodic variety. The man has passed through the usual experiences suffered in gonorrhœa and has knocked off his liquor for a considerable time, and in due course is declared to be quite well and may happen to go out to supper and take a little more alcohol than usual. This may affect the urethra, which is still irritable, and the consequence may be retention of urine of the spasmodic form, cases of which are very often seen by house surgeons at hospitals on Saturday nights. The fact is that the half-holiday on Saturday seems in some way to cause many people to take more liquor than is safe for them to carry; and in the case of a man with an irritable urethra, where spasm has been set up, by midnight on Saturday he is suffering from a condition of retention of urine which ultimately becomes extremely painful. That is the kind of patient who comes to the hospital in the middle of the night, or rings you up, if a practitioner, to be relieved. In such a case there is no doubt that the simplest and best plan for all parties concerned is to slip a catheter into the urethra, doing as little damage as possible. The kind of instrument to use is one of the soft indiarubber catheters generally known as a Jacques catheter, which you can introduce well oiled without giving pain. *Now supposing* that you have got the catheter in to a certain distance and yet you find that it will not go into the bladder, if you will take an old-fashioned stylet and pass it down the catheter it will give you command of the instrument which in all probability will then go into the bladder and you will be able to draw the urine off, and you can give the patient a little opium and send him away. A better instrument, perhaps, is the old fashioned English catheter with a broad end. If you take the stylet out and push the instrument steadily down, as a general rule you will find that your attempt will be successful, but failing with that method you should replace the stylet and then it is probable that you will reach the bladder. If, however, you do not manage that, the best thing to do then is to put the patient under the influence of chloroform, when the spasm at once relaxes and the instrument is able to reach the bladder.

It may not, however, be convenient for a medical man to pass a catheter. He may be driving round his district on a Sunday morning, for instance, and he may be called into a cottage to attend a man who has been drunk overnight and whose bladder is distended. The practitioner may not have a catheter with him, but he probably has his midwifery case with some opium, and if the man has some laudanum given him and directions are left as to hot fomentations to the lower part of the abdomen, in the course of one or two hours the urine may begin to pass, and if it does not the *medical man would have left word that he should be sent for.*

It used to be said formerly that if there was any difficulty in passing a catheter it should be attempted to be passed while the patient was in a hot bath, but the method involves certain inconveniences. In the first place, it is not always an easy thing to get hot water, especially in the middle of the night, and then you must remember that the surgeon has to bend over the bath to manipulate the catheter, with the result that the heat makes his face and head sweat profusely. As a matter of fact, there is no advantage in the hot bath when you can use chloroform.

Another condition of retention is the much more serious one when the patient knows and tells you that he has had a stricture for years, that he has had repeated gonorrhœas, has been under various treatments, and has been dilated more than once, perhaps to full size. You may be quite sure also that his surgeon has warned him that he ought always to have a catheter passed at least once a month. The first Sunday in the month is the rule which I generally insist upon, because you must have a fixed day and Sunday is a day of leisure. If a patient will only pass a catheter on the first Sunday in the month he will not have any difficulty in using the instrument, but if he misses for three months he will find a certain amount of difficulty and probably will have to go under his medical man again.

In regard to treatment, in the first place a proper attempt should be made to pass a catheter, and you will get a great deal of advantage from using the modern French olivary catheters. They are so small that only a few drops of urine can pass through, but if you quietly sit down by the patient—and I advise you to put the patient into a recumbent position—and make up your mind to work quietly with the catheter, turning it round so that it acquires a twisting movement, you will as a rule find that you can somehow reach the bladder along the urethra. Of course I need hardly remind you that you should begin with a moderately large catheter and gradually reduce the size. In the bulk of these cases the catheter is stopped in front of the triangular ligament and if you have begun with an English No. 3 or No. 6 of the French scale and have worked your way down in the sizes gradually until you have come to an instrument which will pass the constriction, let me advise you to tie it in. The effect of tying in a small catheter for 24 hours is that it dilates the stricture, which will further relax and on the next day you will find that it will take a larger-sized catheter. Supposing, however, you are unable to get any instrument through, you must relieve the patient and get the urine out of the bladder, and for this reason—these patients suffer much from violent spasms, and you will see a man with his hands clasped over his bladder bending forward in great pain, and if untreated he may burst his urethra. The bladder itself very rarely gives way, but what will rupture is the urethra behind the stricture, and then the patient runs the risks and dangers attending extravasation of urine.

After having tried elastic instruments, if still unsuccessful you must fall back upon silver *instruments. I know that* in the present day silver instruments are not in favour, but I think that every surgeon ought to learn to pass silver instruments. I should recommend you particularly to remember how easy it is to push a silver instrument through the walls of the urethra and thereby miss the stricture altogether. What you ought to do is with great care and gentleness, and yet with firm pressure, to get the catheter through the stricture. It is not difficult to grip the urethra with the fingers and thumb of the left hand and you can then manipulate the instrument exactly in the middle line. You can feel the end of the catheter, and you proceed to thread it, so to speak, through the stricture, and when that is done you can bring the end down gently and the instrument passes into the bladder and the urine will flow. Again, in such a case as this you should tie the instrument in for 24 hours. Supposing, however, as is very probable, that someone has been attempting to pass an instrument previously and has made a false passage (you will notice that false passages are always ascribed to the previous operator)—supposing someone has made a false passage, you will find that the catheter is very apt to slip into it. Having, however, got through the stricture in front of the triangular ligament you can keep the catheter in the right line by placing the left forefinger in the rectum, and by pressing upward and getting the catheter on the top of the finger you can guide it steadily on in the middle line into the bladder. It is all nonsense to say that you cannot be quite certain whether the instrument is in the bladder or not; you know when it has entered the bladder by the flowing of the urine.

With a certain amount of skill I think that most cases of stricture ought to yield to the use of the catheter, provided the surgeon is persevering and the patient lies quiet. This the patient may do, but patients are not always quiet, and therefore it is very convenient in these cases where there is any such difficulty to put the patient under an anæsthetic. The advantages of the use of an anæsthetic are that it keeps the patient perfectly quiet and also relieves muscular strain—for while he is conscious he cannot help straining—and the surgeon is thus enabled to slip the catheter into the bladder. Still, cases do occur where even the best surgeons may fail to pass a catheter, and then in the case of a man in such a parlous condition as that of retention of urine with an impermeable stricture something must be done, otherwise you may have extravasation of the urine. In the old days the advice given under these circumstances was to tap the bladder per rectum with a curved trocar and cannula. The finger was introduced into the rectum, the cannula was slipped over that and the trocar was thrust into the bladder behind the prostate and the cannula tied in.

Another way of meeting the difficulty was to puncture above the pubes. That, however, has fallen into disuse because for the last 30 years we have had the aspirator for the purpose, and there is nothing, so far as I know, safer than aspirating the bladder above the pubes in those cases where you cannot get a catheter to pass. All you have to do is to shave a portion of the skin and then clean it up. You should choose one of the fine straight needles of the aspirator and it should be plunged into the bladder in the middle line just above the pubes. The peritoneum will have been pushed up by the bladder and there is no risk of wounding the peritoneum.

Aspirating the bladder above the pubes may have to be repeated and I do not know that there is any danger in repeating the operation once or twice. If done repeatedly, however, you may set up inflammatory trouble in the cellular tissue round the bladder. Some years ago one of the surgeons at St. George's Hospital read a paper deprecating the method of suprapubic aspiration because of the danger of putrid urine finding its way into the cellular tissue, but I would point out that urine is not unusually putrid in the bladder. A man's urine does not decompose for a very considerable time, and probably would not do so at all unless some organism were introduced by the passing of a dirty catheter. You may take it therefore that so long as the bladder has not been catheterised the urine will remain sweet, and no risk will be run by performing the suprapubic puncture. In the case therefore of an impermeable stricture, found to be so after all methods of catheterisation have been tried, the best treatment is to aspirate above the pubes.

Perhaps, however, the surgeon is anxious to cure the stricture at once, in which case the safest operation is Wheelhouse's. The instruments required are a straight staff with a hook at the end, a probe-pointed director, and a gorget. The operation is not often required for retention; it is more often wanted for cases where, though there is no retention, it is not possible to pass a catheter. What you do is this: the straight staff is pushed down the urethra to the stricture and a free opening in the urethra is made above the stricture. The incision is widened by forceps being put on, the hook of the staff is turned round, and the staff is then withdrawn so that its extremity acts as an upward retractor of one angle of the wound. With a probe-pointed director the stricture is then found and is brought into view; the stricture is divided by a probe-pointed bistoury and then a pointed gorget is passed along the director into the bladder, when a catheter can be passed along the whole length of the urethra and upon the gorget into that organ.

We come now to a condition of things which is often not recognised. I refer to retention of urine from atony of the bladder, that is to say, that the muscular coats of the bladder have been so weakened by continued distension that they fail to contract. I do not refer to cases of cerebral or spinal paralysis; what I mean is simply that the patient has not had the opportunity of emptying his bladder as he should have done, with the result that the bladder has become over-distended and cannot right itself. Looking back for about 40 years I can remember that the cases were more numerous then than they are now, and they often occurred in the early days of railway travelling when patients were a long time in the carriages without any convenience in the way of lavatories, such as are provided nowadays. I will tell you of a case. An elderly gentleman who was travelling from Manchester to London was unable to empty his bladder until his arrival, because he knew that the performance of this act would take him some few minutes and he did not get out at any of the intermediate stations for fear of losing the train. On his arrival at Euston he tried to empty his bladder but found that he could not do so. He therefore went home and sent for his medical attendant who came, examined him, and said: "You have caught cold and are suffering from suppression of urine, and you must take some diuretics." The patient had diuretics and within 24 hours his urine was observed to be dribbling away, the medical man remarking that that confirmed his diagnosis; but this gentleman quite failed to recognise that the urine was dribbling away because the bladder was overfilled. The ureters of that unfortunate patient became gradually distended and then the kidneys were similarly affected, with the result that the patient died. At the post-mortem examination, of course, there was the full bladder to be seen and it was recognised in what manner the patient had died. Now, gentlemen, if there is one thing more than another which you should remember it is that overflow of urine means a full bladder. An empty bladder does not discharge urine in that way, but if the urethra is fairly healthy and the bladder is full the urine will dribble away in the manner which I have described. Therefore, if a patient comes to you complaining of his urine dribbling away you must pass an instrument, and you will probably find that the bladder is full. You must also remember that after you have drawn off the urine in a case of the kind I have just mentioned you must not expect to cure your patient without further treatment. You will have to pass a catheter with all necessary precautions every six hours for some days, until the bladder gradually recovers itself. The administration of strychnine is very useful under these circumstances because it certainly helps to tone up the bladder, but if you find that the patient does not recover his power of micturition it is a good plan to use the electric current and in that way to stimulate the organ.

We next come to a disease of old age—namely, retention from enlargement of the prostate. I suppose most men who are getting on towards 70 years of age have a certain amount of enlargement of the prostate, but they do not all by any means have retention of urine; but you must remember that prostatic retention may occur in any old man, and that it is quite a mistake to suppose that the affection implies any excess on the part of the sufferer. An old gentleman may have an enlarged prostate without being troubled by it at all, and he may never have had to pass a catheter, but he may have to go out to dinner, and the common thing in dress-clothes is that the trousers are of thinner material than those usually worn. On going home he may have to wait about in a bitterly cold wind till his carriage comes up; he receives a severe chill and that may lead to congestion of his prostate, and then he finds that he is unable to pass urine. You will find that these are cases which require very careful management. You will probably be sent for late at night, and you ought to go provided with all sorts and kinds of catheters. In the first place you should try a soft india-rubber catheter which you know by the name of Jacques' catheter, and you will very often be able to slip that in without any particular difficulty. If you fail with that you can try what is known as the elbowed catheter. This instrument is made of a good length because the urethra in these cases is apt to be longer than usual. The end of the instrument is tipped up so that it shall keep along the roof of the urethra, and you must take care that the name of the maker is opposite to the turned-up end or you must make a notch to furnish you with that indication. When passing the instrument you can either have the patient standing up or in the recumbent position, personally I prefer the latter. On passing it you will find that with a little pressure it reaches the bladder, when the urine can be drawn off, and in that particular class of case I do not think that it is advisable to tie in the catheter. Supposing, however, that you have not got an elbowed catheter you will find that the old fashioned English catheter is very useful, and it may be used on an occasion like this with or without the stylet. If used with a stylet the end must be bent well down. After you have introduced it and it is difficult to push it further on you should withdraw the stylet, when the end of the catheter will curl upwards, and in the majority of cases the bladder can be reached. You see, therefore, that in most cases you will probably succeed with a Jacques' or with a French elbowed catheter, or with an English catheter. When you draw the urine off from the bladder you must not be surprised if it is bloody, for it will be so in all these cases, therefore it is just as well to warn the friends and the patient that the urine will be bloody beforehand and to observe that it is not from anyone's fault.

It may be that you will be called in to a case where some medical man has previously attempted to draw off the urine by the means which I have just mentioned to you. Supposing that every attempt with elastic instruments has failed I think you will do well to use a silver prostatic catheter. It is a large curved instrument and it is passed on steadily up the urethra till some obstruction is met with; a finger is then put into the rectum and the end of the instrument is tipped up, when it should pass on into the bladder easily. You will be astonished sometimes how easily a silver catheter gets past a difficult obstruction which no elastic catheter has been able to overcome.

In these cases there is, as I have said, a certain amount of hæmorrhage, but it is not serious, though it may happen in a prostatic case that you will have to deal with a considerable hæmorrhage into the bladder and large clots may form, practically filling it. That is rather a serious position. I remember being called in by a gentleman who asked my assistance under the following circumstances. He had a Member of Parliament under his care who was bleeding into the bladder, and he was completely worn out with passing catheters, so he wanted to open the bladder. I went and saw the patient and I said, "If you open that man's bladder you will kill him. If you will hold your hand for a few hours and put the patient under the influence of opium it will relieve all the spasm, the clot will break up, you may be quite sure that the urine will do that, and I advise that a catheter should be passed only night and morning." My advice was taken and the patient got perfectly well. Years went by, and it happened that the gentleman who had called me in published a paper on this subject in one of the medical journals, in which he narrated this case with considerable accuracy, alluding to the treatment as his own and not mentioning my name.

Certain treatments have been carried out for the condition of enlarged prostate, and though perhaps they may not quite come under the heading of retention, yet you must remember that a man with an enlarged prostate is more liable to retention than are other men. The first I will mention is that of prostatectomy. The late Mr. McGill of Leeds thought the operation out, and he opened the bladder above the pubes and snipped out any projecting mass of the prostate. The surgeons at Leeds took the operation up and I remember, when there was a big medical meeting there, one of the features of the gathering was a benchful of elderly men, each holding a bottle containing a portion of his prostate. The method answered very well but there was the risk of hæmorrhage and the patient was liable to septic troubles, and practically the operation has fallen into disuse. Dr. White of Philadelphia then recommended removing the testicles in cases of enlarged prostate. I think there can be no doubt that the removal of both testicles does lead to shrinking of the prostate, but it also in some cases leads to a considerable affection of the nervous system of the patient, and there has been an uncomfortable number of suicides after this operation. I only did it once myself in this hospital, and in that case the man very much improved and was able to micturate with great comfort.

The last operation I shall mention is that of Mr. Reginald Harrison, formerly of Liverpool, now of London. He finds that by taking out a piece of the vas deferens on each side he prevents any flow of the spermatic fluid into the urethra, and this leads to atrophy of the prostate, but at the same time it leaves the testicles untouched, and therefore the mental effect on the nervous system is avoided and the patient has the satisfaction of retaining his organs. In my opinion that operation seems to be the best.

Retention in the female occurs, of course, most generally in connexion with pregnancy and let me beg of you, gentlemen, although I know nothing of midwifery, not to overlook a full bladder. Examine the patient for yourselves, do not take the word of the nurse, however highly trained she may be and however many certificates she may hold. If you have the slightest doubt pass a catheter, for many of the serious accidents following parturition are due to the prolonged presence of a full bladder. If the uterus becomes retroverted or even retroflexed the bladder may be affected and retention be set up, and ordinarily there is no difficulty in passing a catheter. Under certain circumstances, however, there may be some degree of difficulty in introducing an instrument, because sometimes the urethra is so drawn away that it renders the passing of the catheter awkward, and in that case there should be no hesitation in making the necessary exposure for the instrument to be inserted.

Lastly, there is that form of retention which we meet with in young people and which is called "hysterical" retention." I suppose it really is hysterical retention, and I am referring to such a case as when a young girl at a school holds her urine a little longer than usual and then says that she cannot pass it. There is no difficulty in the treatment; the great secret is not to pass a catheter. You should leave the patient for a little while, and tell the mother or the matron to put the girl into a hot bath and exhort her to try to micturate. Then, if she will not, a jug of cold water should be suddenly thrown over her head and shoulders, and that will most certainly have the desired effect.

AN EARLY EXPERIENCE CONCERNING THE THERAPEUTIC VIRTUES OF IODIDE OF POTASSIUM IN ASTHMATIC AFFECTIONS.

BY SIR W. T. GAIRDNER, K.C.B., M.D. EDIN., F.R.S.,
LATE PROFESSOR OF MEDICINE IN THE UNIVERSITY OF GLASGOW

IT has occurred to me to send to THE LANCET the following excerpt from a volume which is about to be published by Messrs. James Maclehose and Sons in connexion with the celebration of the ninth jubilee of the University of Glasgow on June 12th and following days. Being asked to *furnish* some reminiscences—not all, or even chiefly, medical—to this volume, I was led in the course of these to recall *some* points which may have interest more particularly for medical readers, especially for my old pupils now dispersed all over the world, and whose attention may possibly be drawn to this volume by the knowledge that it contains *some personal* recollections of the days of the great migration from the old college in the High-street of Glasgow to the new educational home on Gilmorehill.

In submitting a proof of this portion of my article to my ex-colleague, Professor Stockman, I am confirmed in the impression that the facts here placed on record, although without any pretension to scientific or pharmacological importance, may have a certain significance for those who care to trace the beginning of a therapeutic use of the iodides now generally acknowledged, but not at all so in the "fifties," to which date the first experiences of Dr. Barclay are to be referred. Dr. Stockman writes to me as follows:

"It is very interesting to find that Jephson of *Leamington* should have prescribed potassium iodide *for* bronchitic asthma. I have no note and have come across no account as to where or by whom it was first employed in these cases As a student I merely heard of it in a general way, and I only learned its value in some cases from its effect on a patient of mine who brought me a renowned (in certain circles) and secret asthma cure made up and sold by a chemist in Loanhead This patient had been advised by a friend to try it, and it really practically cured him It contained nothing but 20 grains of sodium iodide in each dose, with some flavouring matters, no stramonium, no belladonna, &c There is no mention of iodine or iodides for treatment of asthma or bronchitis by Cogswell (1837) or by Boinet (1855), both of whom wrote treatises on the therapeutic uses of iodine and its compounds Their use in asthma is pretty well known now, but it would certainly do no harm to draw attention to it in the special way you intend"

"From the time when he was the minister of Currie parish, at least, Principal Barclay had been subject to severe asthmatic seizures, which [illegible]

[illegible] the medicine indicated in it had been found of very great service in Dr Barclay's asthma, but that neither of them could understand the *rationale* of the prescription This was not very wonderful, as it was one of those [illegible] to discover the *modus operandi* of any particular constituent. Yet it was a very favourable example of this particular kind of prescription, 'elegant' in its form (to use the conventional word) and, as regards its effects, quite worthy of the great reputation of the late Dr Jephson of [illegible]

emanated as a pure [illegible]
practice on account [illegible]
the house of Sir Wm [illegible]
with a number of [illegible]
rest, and general hy[illegible]
conference with the [illegible]
suggestion, but aft[illegible]
Dr Barclay theren[illegible]
person on all the se[illegible]
by any reasonable i[illegible]
not disco[illegible] the fact [illegible]

[illegible] teacher of [illegible] a new therapeutic fact, and from that time onwards I rarely omitted an opportunity of preaching iodide of potassium (as well as prescribing it) in bronchial affections, together with the [illegible] conveyed by the whole [illegible]

[illegible] unexpected as [illegible] it was during a service in the College chapel and I had seen him immediately before) but the long struggle with an ever recurring disease and with many and great personal anxieties had completely exhausted a physical constitution originally of great vigour and a mind which almost to the very last was receptive and intelligent as well as sympathetic in no ordinary degree."

In conclusion, and without further discussion, I commend these simple facts to the profession with a certain sense that they might well have been published long ago had it not been for a desire for greater completeness in setting forth what had, nevertheless, a powerful and abiding influence on my own practice at the time and since

Edinburgh.

---

[1] "Although this is not a suitable place for further discussion of this subject I may be permitted to add that the properties here attributed to the iodides were quite unrecognised in the great work of Pereira, and, so far as I can discover, were unknown to the medical profession at large at the time of the incident here referred to. It is perhaps not easy to say how far the oral teaching above referred to may have in directly influenced professional opinion, but the cardinal fact of the Rev Dr Barclay's logical analysis of Jephson's prescription has never been stated in print (so far as I know) until now"

DEVON MEDICAL CHARITIES —The late Mrs E Taylor of Exeter bequeathed £1000 to the Devon and Exeter Hospital, £100 to the West of England Eye Infirmary, and £100 to the Exeter Dispensary

THE LATE PROFESSOR ALFRED HUGHES.—Mrs Hughes, the widow of the late Professor A Hughes, has contributed £1000 towards the endowment of the Alfred Hughes Anatomical Museum at University College, Cardiff.

RAT PLAGUE.

A PRELIMINARY COMMUNICATION ON AN OUTBREAK OF DISEASE IN RATS AT CAPE TOWN.

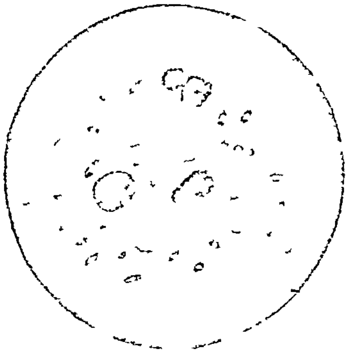
BY ALEXANDER EDINGTON, M D., F.R S EDIN ,
DIRECTOR OF THE COLONIAL BACTERIOLOGICAL INSTITUTE, CAPE COLONY

ON Feb 5th I arrived from England at Cape Town, *en route* to Port Elizabeth. At Cape Town I was informed by the Honourable the Colonial Secretary that it had been reported to him that rats were dying in great numbers from bubonic plague. He accordingly thought proper to detain me at Cape Town in order to investigate the matter. Accounts from reliable persons went to show that rats had been dying in the south arm of the docks. Instructions were therefore issued to the police and others to procure for me specimens of infected rats either dead or alive. During the following six days, however, no rats were found and I was therefore forced to report that, so far, no evidence had been brought forward to show that rats were dying from plague On the following day, however, a rat was found in the south arm which had just died and it was forwarded to me, while at the same time authority was given to me to proceed to the isolated station to which certain persons who were believed to be suffering from bubonic plague had been sent On proceeding to the latter place I found 12 persons had been admitted, most of whom had very well-marked buboes either in the femoral or axillary regions I opened into most of the buboes by means of a sterilised hypodermic syringe and in the material thus collected I was able to demonstrate the presence of the bacillus of bubonic plague in most instances. Cultivation experiments were also successfully carried out and since that date I have produced the disease by inoculation of the cultures in guinea-pigs and rabbits It is, however, in connexion with the disease in rats that this communication has been made.

The rat sent to me as having recently died in the south arm of the docks was carefully examined. At the post-mortem examination which was made with the assistance of my colleague Mr. Duncan Hutcheon, M R C V S , the chief of the Colonial Veterinary Department, the following conditions were seen. The animal was well nourished No fluid or exudation was seen in connexion with either the mouth, the eyes, or the nose. No subcutaneous hæmorrhages were noticed There was an abundance of clear, yellow serum in the pleural cavity and the pericardium was filled with a similar fluid The lungs were quite normal The blood in the heart was still fluid and no pathological changes were observed in the heart. The peritoneum was normal The liver was congested but showed no other change The spleen was normal in size, colour, and consistence. The adrenals were enlarged and very pale in colour. No enlarged glands were found. The blood in the veins was fluid On making a microscopic examination of the heart blood, axillary blood, and the spleen and liver juice, I found enormous numbers of bacteria Their form was oval and frequently they were joined as diplobacteria In size the longest segments, which, like the shorter forms, always had rounded ends, were 3μ in length and 1 5μ in breadth The diplobacterial forms measured 4μ in length and 1 2μ in breadth, while the smaller single oval forms measured 1 5μ in length and 1μ in breadth. In preparations from the spleen which were stained by methyl violet simultaneously with preparations made from the buboes of the patients affected with plague, while in the latter the bacteria always showed well-marked bi-polar staining the rat bacteria did not show this reaction. Fig 1 shows the form of the plague microbes as seen in the buboes, while Fig 2 shows the forms of the rat bacterium Fig 3 shows a primary culture of the plague bacilli, while Fig 4 shows a primary culture of the rat bacterium. These cultures were made, the rat on the evening of Feb. 11th and the plague microbe on the morning of Feb 12th The same batch of agar agar was used and the examinations were made two days later The culture of the rat microbe was much more profuse than that obtained from patients suffering from the plague In the latter case only a few isolated colonies grew, while in the former the spleen gave an almost confluent mass of growth and the blood yielded discrete colonies.

The primary culture of the rat microbe presented the most remarkable forms: some were diplococci or diplo-bacteria, others formed single and longer segments, while others formed large cells the somewhat spherical form of which was irregular in conformation, staining affinities, and size. The latter observation, taken in conjunction with the results of microscopical examination of the organs and blood of the rat, caused me to declare, pending further experiments, that the disease in the rats was not identical with bubonic plague. On culture the rat microbe does not present any characteristic which would sufficiently distinguish it from bubonic plague. Moreover, in buttered bouillon it also forms stalactite growths. Inoculations of the bacilli obtained from the patients afflicted with Cape plague on litmus agar showed an acid reaction after eight days but the rat bacterium failed to show this.

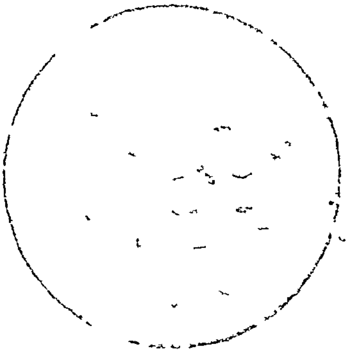
FIG. 1



Pus from bubo of a Cape Town case of plague

After journeying to Grahamstown I proceeded to carry out experimental inoculations in animals with the cultures derived from the rat. In my inoculation experiments the following procedure was carried out for the purpose of preparing material for inoculation. A tube of alkaline bouillon was inoculated with a trace of an agar culture by means of a platinum needle, and after 24 hours' cultivation from five to 10 drops were used to inoculate animals by subcutaneous injection. Such a bouillon tube thus inoculated shows only a very slight turbidity after shaking and the quantity of the bacteria contained in five or 10 drops is, therefore, not large. On March 1st two guinea-pigs, Nos. 1 and 2, were each inoculated with 10 drops of a 24 hours' old bouillon culture. On the following day both seemed well, but on March 3rd both were very sick and No. 1 died on that day. The post-mortem examination was made almost at the moment of death. The eyes were bright and had a very slight watery discharge seen at the inner canthi. Under the skin of the right foreleg was found a small gland two millimetres in length and one millimetre in breadth. It was semi-transparent and seemed filled with a watery fluid. Almost the whole of the subcutaneous tissue, specially that on the ventral surface of the body, was occupied by a pale gelatinous œdema. On the left side was found a small area 10 millimetres in diameter, slightly hæmorrhagic in character. In the left groin two glands were found, very small in size, which were also œdematous, and when cut emitted a clear fluid. The site of inoculation was enormously œdematous and the track of the needle was defined by a slight extravasation of blood. The œdema around and beneath this was absolutely clear and coagulated, being about six millimetres in thickness. This area of clear œdema was one and a half inches in length. The spleen was very slightly enlarged, being about 21 millimetres in length and 10 millimetres in breadth and two millimetres in its thickest part. In consistence it was firm and no abnormality otherwise was detected. One small gland was also found in the abdomen which was almost transparent. The liver was slightly congested, otherwise normal. Cultures made from the blood of the heart and the juice of the liver and the spleen allowed of my recovering the bacterium again in a state of purity. Examinations of the spleen pulp revealed innumerable bacteria. The whole looked like a pure culture

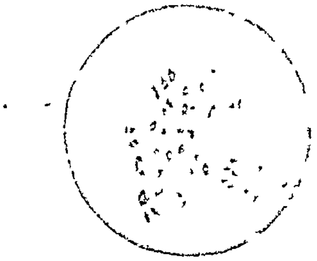
FIG 2.



Juice from spleen of rat dead from rat plague

On March 4th Guinea-pig No. 2 died. The post-mortem examination revealed similar conditions to that found in Guinea-pig No. 1, but certain additional features were also to be noticed. There was a small amount of fluid in the pericardium. The spleen was enlarged and covered all over with small white points similar to the condition which is found in guinea-pigs which have been inoculated with bubonic plague bacilli. One enlarged gland was found in the area of inoculation which was hyperæmic and opaque. Such glands as were found in other situations were semi-transparent as in the former cases.

FIG. 3.



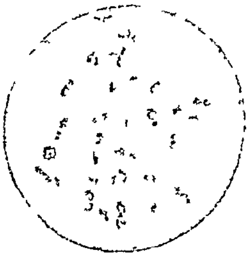
Primary culture from bubo of a Cape Town case of plague

On March 4th a guinea-pig (No. 3) was inoculated with 10 drops of a 24 hours' old bouillon culture. On March 8th it died, and the post-mortem examination showed conditions similar to those found in Guinea-pig No. 2.

On March 5th a baboon was inoculated with 10 drops of the same culture as was used to inoculate Guinea-pig No. 3. The inoculation was made in the forearm. No swelling formed at the site of inoculation and no bubo formed in the axilla. It was never sick and to-day, three weeks later, it is in perfect health.

On March 7th two rabbits (Nos. 1 and 2) were each inoculated with 10 drops of a bouillon culture and a guinea-pig (No. 4) was inoculated with the same material and dose as control. On March 12th Guinea-pig No. 4 died and the post-mortem examination revealed similar lesions to those seen in Guinea-pigs Nos. 2 and 3. As the rabbits never showed the slightest signs of sickness they were re-inoculated on March 19th with 10 drops of a 24-hours bouillon culture of the bubonic plague bacilli which I had isolated from one of the Cape Town cases, and at the same time I inoculated one guinea-pig (No. 6) with the same dose for the purpose of control to this experiment. As this latter animal, however, struggled at the moment of inoculation a portion of

FIG. 4.



Culture from spleen of rat dead from rat plague. (Figs. 1 to 4, Zeiss, 2 mm. ap and ocular 8).

the material was ejected from the inoculation wound, so [illegible] must have been smaller than [illegible] first instance. On March 24th [illegible] a great sanguineous œdema at the site of inoculation involving several glands. There was some congestion of the larger bowel. The liver was enlarged, congested, and showed a number of small white points which were irregularly scattered here and there over it. These points were irregular in size, never exceeding a millimetre in diameter, many being smaller. The spleen was enlarged and discoloured, portions being reddish and parts, especially towards one end, greenish in colour. Several enlarged and hyperæmic glands were discovered. The lungs showed inflammation in patches and a small amount of fluid was found in the pericardium. Pure cultures of the bacilli were obtained from the spleen and liver On the 25th Rabbit No. 2 died. The post-mortem examination revealed similar conditions as in Rabbit No. 1. The spleen showed a similar discolouration, while the white points in the liver were much more numerous. Cultures of the plague bacilli were also obtained from the spleen and blood in this case.

On March 26th Guinea pig No 4 (control experiment) died. A great tumour was found at the site of the inoculation of a hæmorrhagic character involving several glands. The glands of the opposite side were also enlarged. A sanguineous effusion surrounded the site of inoculation and extended over the abdomen. The lungs were affected with broncho-pneumonia and there were numerous areas of actual necrosis. Some fluid was found in the pericardium, but small in amount The liver was enlarged, congested, and had some small white points studded over it. These ranged in size from a pin-point to that of a pin-head. The spleen was enlarged and absolutely studded over its surface and throughout its substance with white points. On March 20th two rabbits (Nos. 3 and 4) and one guinea-pig (No. 7) were each inoculated with 10 drops of a 24 hours' old bouillon culture of the rat bacterium which had been passed through a guinea-pig. On March 25th the guinea pig died. The lesions in this case were very well marked and of the characters seen in the former cases of guinea pigs inoculated with this microbe The spleen was enormously enlarged. The lungs were slightly inflamed in patches On March 26th Rabbit No 3 died from causes which could not be ascertained. The post-mortem examination was kindly made by Dr. W. Ramsay Smith, the President of the Central Board of Health of South Australia, and Mr. J. Desmond, the Government veterinary surgeon of the same State. I was very pleased to have the assistance of these gentlemen, since they have had in Australia a rather extended experience in regard to the pathology and bacteriology of plague. The site of inoculation was occupied by a dry abscess the pus of which was tough and tenacious. All the organs were healthy except the liver, which was affected by animal parasites. Microscopic examination failed to detect any bacteria at all and tubes of agar which were inoculated from the liver, spleen, and blood remained sterile.

On March 28th I killed the remaining rabbit. Here, as in the former case, the site of inoculation was occupied by an abscess the pus of which was equally tough and tenacious. The lungs were affected by numerous hydatids; otherwise every organ in the body was quite healthy.

On March 26th two pigeons were each inoculated with five drops of a 12 hours' old bouillon culture of the rat microbe. Unfortunately while the inoculation was being made in the second pigeon the needle pierced the skin at the farther point and thus almost the whole of the fluid passed out among the feathers and but a small dose could have been left under the skin. The point selected for inoculation was the front of the chest between the delicate skin and the pectoral muscles. On March 31st Pigeon No. 1 died. At the post mortem examination a tumour was found between the thin integument and the muscular tissue below, and had also infiltrated the muscular substance itself. The heart was absolutely empty in the ventricles and only a trace of blood was found in the right auricle. The liver was very deeply congested. No other abnormality was detected. Examination of the blood and of the juice of the liver showed innumerable bacteria which, in the case of the liver, showed extremely well-marked bi-polar staining. Pigeon No. 2 died on the afternoon of April 1st. The post-mortem examination revealed almost identical lesions. Cultures made on agar from the blood and liver juice in both these cases gave plentiful and absolutely pure cultures of the rat microbe

Since, therefore, we have in the rat a disease which is communicable to guinea-pigs but not to rabbits, and to which rabbits are also refractory even after it has been passed through the guinea-pig; and since, moreover, inoculation of the rabbit with this rat bacterium in its virulent form gives no protection against a subsequent inoculation with bubonic plague, it seems clearly proved that this rat plague cannot be bubonic plague. The peculiar susceptibility of pigeons to the rat disease also indicates the difference between that malady and bubonic plague. In future steps will have to be taken in case of rats being affected with a disease simulating plague to inoculate other animals than guinea-pigs. My experiments show that the rabbit is probably the best animal to use in conjunction with guinea-pigs.

ALCOHOL AND ARSENIC IN THE ETIOLOGY OF ALCOHOLIC NEURITIS.

BY E. FARQUHAR BUZZARD, M.B., M.R.C.P. LOND.,
REGISTRAR TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

THE recent epidemic of arsenical neuritis amongst the beer drinkers of the northern and midland counties has led to the discussion of several interesting points in relation to peripheral neuritis in general and that form which is the result of alcoholism in particular. The word "alcoholism" is used advisedly, for we find that medical authorities are by no means agreed as to what particular constituent of alcoholic beverages is responsible for the lesions in the peripheral nerves of their consumers.

Among the most notable opinions that have recently been put forward and emphasised by eminent medical men are (1) that ethyl alcohol *per se* cannot produce neuritis; and (2) that "alcoholic neuritis" only occurs in beer-drinkers and not in pure spirit-drinkers. It has, moreover, been widely suggested (3) that alcoholic neuritis is really a misnomer and that the causal factor in those cases to which we have been accustomed to apply the name may yet be found in arsenic acting in inconsiderable doses. The first of these three theories—the one which denies to ethyl alcohol a selective pathological action on the peripheral neurons—is difficult to prove or to disprove. The second and third theories may reasonably be expected to stand or fall under the test of clinical experience and such other tests as experimental investigation may suggest.

With a view to elucidating the facts which clinical observation in a large number of cases can disclose the author of this paper has conducted a careful investigation of the notes on 120 of the most recent cases of "alcoholic" neuritis which are to be found in the case-books at the National Hospital for the Paralysed and Epileptic, Queen-square, London. The above number includes only those cases in which there seems to be no reasonable doubt that immoderate drinking was, at any rate, a possible etiological factor and does not include those in which some other toxic agent had been shown to be present, either alone or in conjunction with alcoholism. The cases occurred during the last 12 years and in that time about 20 other cases of multiple neuritis were treated in the hospital in which alcoholism was a possible but not a reliable cause. If we take all the cases of multiple neuritis for the period they can be classified thus to show their relative numerical strength.

	Cases.		Cases.
Alcohol	120	Post-influenzal	3
Alcohol (doubtful)	20	Lead	21
Alcohol and marked tuberculosis	7	Malaria	3
Alcohol and septicæmia ...	2	Arsenic	2
Septicæmia alone	4	Post-typhoid	1
Post-diphtheritic	34	Diabetic	5
		Unknown cause	5

In the study of these notes especial attention has been paid to the following points: (1) age; (2) sex; (3) habits in reference to alcohol; (4) changes of a nutritional, vaso-motor, or pigmentary nature in the skin, hairs, or nails; and (5) the result of treatment with arsenical drugs.

1 and 2. *Age and sex of the patients.*—These two points may be briefly dismissed. Among 120 patients there were

96 females and 24 males. The average age of the males was 42 8 years. The average age of the females was 38 5 years.

3. *Habits of the patients in reference to alcohol.*—In regard to this matter the notes are, on the whole, satisfactorily complete, and in quite a large proportion evidence has to both the quality and the quantity of drink taken has been obtained either from the sufferers themselves or from friends and relatives. It cannot be said that the story told by the former always tallied with the "friendly" version, but, taking the large number of cases in question, considerable value attaches to the statements thus obtained. I have classified the results of this inquiry into habits under as few headings as is possible, with a due regard to accuracy, in the following manner:—

	Cases.
Spirits only (quantities from half a pint to two bottles a day) ...	29
Spirits predominant (other forms admitted in moderation)	11
Spirits only, and in moderation	1
Spirits and wine in excess	3
Beer only and in excess	1
Beer predominant	1
Beer only and in moderation	3
Beer and wine in excess	1
Beer and spirits in excess	30
Beer, spirits, and wine in large quantities	3
Wine (port and sherry) in excess and only	1
Stout in moderation admitted	1
Stout and spirits	4
No mention of habits	11
Alcoholic excess without specification of form	20
Total	120

In the first class, that which contains the consumers of large quantities of spirits only, there are a considerable number in which, from the evidence of friends and patients alike, there can be no doubt that brandy, whisky, or gin was the sole stimulant consumed. Others base their claims to be included in this class on the evidence either of their friends or of their own admissions. It has been urged by some physicians that if the question and inquiry are only pushed far enough beer will always be found to be associated even with large quantities of spirits in the daily diet of these patients. It is scarcely credible, however, that a man or a woman who will unblushingly admit to consuming two bottles of brandy a day should display any bashful coyness in reference to an extra gallon or so of ale. On the other hand, out of 89 cases in which habits are noted there is but one in which there can be no reasonable doubt that beer alone, and beer in large quantities, was the only form of alcoholic liquor taken. As one would expect in the class from which hospital patients are drawn, it is among the mixed beer- and spirit-drinkers that the most numerous victims of this disease, are to be found and quite a large proportion of those who come under this head are connected with the liquor trade either as barmaids, publicans, or the wives of publicans. The figures given above undoubtedly point to the conclusion that in London, where there is a large beer-drinking community, it is among the consumers of pure spirits, either alone or in conjunction with beer, that the clinical picture of alcoholic neuritis is most frequently found.

4. *Changes of a nutritional, vaso-motor, or pigmentary nature in the skin, hair, or nails.*—In 57 of the 120 cases no special reference was made to the condition of the skin or of its appendages, and these are therefore valueless for the present purpose. In 23 cases it is specially noted that no skin changes were to be found. In 40 cases vaso-motor, trophic, or pigmentary abnormalities are described and their nature presents an interesting and useful study when brought into comparison with those changes which are known to be a consequence of arsenical poisoning. Under the head of trophic disturbance it is to be remarked that the skin on the hands and feet is generally described as (*a*) thin and glossy or shiny, or (*b*) soft, soapy, or boiled in appearance. Along with the thin shiny skin which is particularly observed on the digits is found striation, brittleness, or a reeded condition of the nails. Profuse perspiration, limited to the extremities, generally accompanies, and probably accounts for, the soft, soapy condition of the skin, which has been likened to that found in washerwomen's hands. The colour of the skin on the hands and feet is usually described as white, but in some cases there have been purple or red patches, generally over joints in which adhesions are present or, in one case, over the palmar surface of the phalanges. In reference to pigmentation one case, that of a mixed beer- and spirit drinker, is found in which the skin is described as pigmented in the groins and over the abdomen. In another there were some pigmented scars on the shins, but with these exceptions pigmentation is conspicuous by its absence. Vaso-motor changes, apart from [illegible] not frequently noted, but in a few case [illegible] ance of the lower extremities, with or [illegible] ankles, appears to be a feature.

In considering the above observations the fact is at once evident that the whole of the conditions mentioned with two exceptions (one of trunk pigmentation and one of keratosis of the plantar surfaces) are those which can be, and frequently are, met with not only in all forms of peripheral neuritis but also in other diseases in which the lower neurons are affected, such as progressive muscular atrophy, amyotrophic lateral sclerosis, and the like. These secondary skin changes are, indeed, the outward and visible signs of a disturbed nutrition due to an abeyance or alteration of the trophic function of the peripheral neurons and are quite distinct from the primary cutaneous changes in arsenical poisoning where the toxin at work exercises a specific influence on the cutis and cutaneous appendages. It is true that in the latter class of cases one may, and does, find the signs of secondary cutaneous atrophy present in addition, since arsenic shares with other toxic substances the power of producing pathological changes in the nerves themselves.

Two other notable features of my series of cases deserve a word or two in this relation. There is no mention of a single case of herpes or of erythromelalgia in the 120 cases. The absence of these two nervous phenomena is of particular importance because neither would be likely to escape observation in the hospital under consideration, where both have gained a large amount of attention. Yet it is said that amongst arsenical beer-drinkers both these physical signs are by no means uncommon. The non-occurrence of herpes, at any rate, cannot be explained on the ground that the dose of arsenic is insufficient, for I have on several occasions noted a crop of herpes following on small doses of Fowler's solution administered over a very short space of time, and the causal or predisposing relation of that metal to herpes has received general acceptance and confirmation since Mr. Jonathan Hutchinson first brought it forward. In this connexion it is interesting to note that out of a very limited number of cases of diabetic neuritis which have come under my observation I have on two occasions met with herpes zoster. Arsenical and diabetic neuritis resemble each other, moreover, in the severe character of the sensory phenomena; in both diseases spontaneous and continuous pain, apart from muscular tenderness in the affected limbs, is a much more marked feature than is commonly the case in alcoholic neuritis.

The term "erythromelalgia" properly refers to a symptom-complex in which pain, local heat, and flushing, all aggravated or initiated by a dependent position of the affected part, are pathognomonic, and is distinct from the phenomenon of ordinary vaso-motor palsy, to which, unfortunately, the name has been sometimes loosely applied. As far as I can ascertain no true instance of this condition has been observed in a case of alcoholic neuritis, or indeed of any other form of multiple neuritis, at Queen-square.

5. *The result of treatment with arsenical drugs.*—More than one physician at the hospital has from time to time treated his cases of alcoholic neuritis with doses of Fowler's solution, and the course of the disease in these patients whilst under the influence of this drug cannot be without interest in view of the part which arsenic may or may not play in the production of this morbid condition. Twenty-four cases were treated with arsenical solution in doses of two, three, or four minims given three times a day. In 17 of these the amount taken was nine minims and in four others 12 minims per diem. The period over which the drug was exhibited varied from one week to eight months and in the majority of cases it was from three to five months. The results obtained in the whole series of 120 cases may be thus compared with those obtained in the 24 where arsenious anhydride was administered:—

—	Cured.	Greatly improved.	Improved.	In statu quo.	Deceased.
Arsenious anhydride 0 06 to 0 12 gr. daily ..	3	12	9	0	0
No arsenical drug given ..	31	33	36	7	13

I would not for a moment contend that the favourable results obtained in the first part of the table were due to the administration of this drug; on the contrary, it must be allowed that Fowler's solution would, in all probability, only be used when the patients had passed the most acute stage in the disease. At the same time it is a striking fact that none of those cases were unfavourably influenced by the exhibition of arsenic and that at least two-thirds of them left the hospital either cured or well on the road to recovery.

It will probably be admitted by most physicians that the essential condition for recovery from this form of peripheral neuritis is only attained when all access to alcoholic stimulants is prevented. If arsenic be the toxic constituent of those stimulants one would not expect the cases, when the alcohol is withheld and the toxin administered in another medium, to run an invariably favourable course. This, however, has certainly been the case in my series and as far as clinical facts permit any conclusion to be drawn they must weigh heavily in the balance against the arsenical theory in the etiology of this disease.

Whether arsenic or alcohol is the cause of this disease there is no doubt that only a very small percentage of persons who, on account of their habits, are exposed to the risk of peripheral neuritis ever show any symptoms of the condition. Probably the incidence of the morbid process can be best accounted for by a special individual susceptibility to the poison, and, if it be assumed that arsenic is the poison at work, all cases of "alcoholic" neuritis should occur in persons susceptible to that mineral. On this assumption one would expect even the small doses administered for therapeutical purposes to be sufficient to prevent or, at any rate, to retard, the recovery of sufferers from this particular form of neuritis. That this expectation is not borne out by clinical experience leads to the conclusion that arsenic is not the chief etiological factor in alcoholic neuritis.

Another point of clinical interest is the absence of any necessary association between arsenical pigmentation and arsenical neuritis, and in the National Hospital for the Paralysed and Epileptic is afforded the opportunity of seeing a considerable number of patients who have been taking arsenic medicinally over long periods of time. Many of these present more or less pigmentation, but only two cases of peripheral neuritis, undoubtedly due to arsenic, have been observed in 12 years. Only a few days ago I stripped a patient who had been taking arsenical solution, to the amount of nine minims a day, fairly regularly for seven years in conjunction with bromide of potassium. The whole of the neck, the trunk, and the proximal parts of the limbs were covered with a typical arsenical pigmentation of a mottled sepia colour. No signs of cutaneous trophic changes or of peripheral neuritis were present. Still more recently I examined a man who had been taking six minims of the same drug daily for nine months. Eight months after he had ceased to take any arsenic he presented a similar condition of pigmentation in a less decided shade. Such cases represent the results of drug accumulation in persons whose nervous systems are not especially susceptible to the toxic properties of this metal. It would be interesting to know whether such cases of pigmentation are to be met with amongst heavy beer-drinkers in London who have not fallen victims to peripheral neuritis.

In recounting the results of my investigations I have purposely avoided reference to any of the clinical phenomena of alcoholic neuritis which do not help to elucidate the particular questions at issue.

One or two points may, however, have some indirect interest in this connexion. The absence of wasting and the presence of a peculiar hard condition of the calf muscles, accompanied by tenderness on pressure, has been a noted feature in one or two cases. This has been so only in mild forms of the disease and when the motor difficulty has been one rather of unsteady gait than of great paresis. Paralysis of the diaphragm has been of frequent occurrence in the fatal cases, but is not unknown in those which have recovered. Difficulty in swallowing has been recorded in a few instances. The loss of memory for time and place has been very general and, in the more severe cases, is a condition from which there is very little hope of recovery even when the activity of the limbs is restored. The presence of ocular nystagmoid movements on extreme lateral deviation and amenorrhœa are not infrequent features and are well known to most observers.

A summary of the evidence which I have obtained leads me to think that, in London at any rate, (1) alcoholic neuritis is more often found in the sequel of spirit-drinking than in other forms of alcoholism; and (2) that clinical evidence is antagonistic to the idea that arsenic is the cause of alcoholic neuritis.

It has frequently been argued that spirits cannot produce neuritis because the latter disease is uncommon in Scotland, but, as far as I am aware, no modern statistics on this point have been made. I am strongly of the opinion that a numerical comparison of cases of alcoholic neuritis with the total population in Edinburgh, Glasgow, and London would throw an important light on this line of argument.

In conclusion, I have to thank the members of the medical staff at the National Hospital for the Paralysed and Epileptic for their kind permission to make use of their case-books for the purpose of this investigation.

Harley-street, W.

AN EXPLANATION OF THE VULNERABILITY OF THE APICES IN TUBERCULOSIS OF THE LUNGS.

By E. H. COLBECK, B.A., M.D. CANTAB., M.R.C.P. LOND.,

AND

ERIC PRITCHARD, M.A., M.D. OXON., M.R.C.P. LOND.

IT has been generally admitted since the time of Laennec and Louis that the apices constitute the most vulnerable portions of the lungs when these organs become the seat of tuberculosis. Statistics collected from divers sources bearing on this subject vary somewhat, but they show that from 60 to 80 per cent. of the cases of pulmonary tuberculosis commence in the apices of the lungs, the initial lesion being rather more common on the right than on the left side, in the proportion of slightly less than three to two. Now, while there is a practical unanimity of opinion as regards the primary site of the disease in pulmonary tuberculosis, there is no sort of agreement among observers with respect to the cause of the peculiar vulnerability of the apices. Indeed, it may almost be said that our knowledge of the exact conditions which determine the special proclivity of the apices to tuberculosis is inversely proportional to the number of theories that have been advanced to elucidate them. Nevertheless, it is by no means improbable that some of the attempts which have been made to solve the problem contain at least the germs of the true explanation of the cause of the phenomenon under consideration, and for this reason, if for no other, it becomes necessary to enumerate and to briefly review the more important theories that have been advanced.

The view that has probably met with the widest acceptance attributes the apical site of the lesion to the comparative rigidity and fixity of the upper portion of the chest, whereby the movements of the contained lung are considerably curtailed. It has, moreover, been pointed out that sedentary occupations and certain forms of manual labour, notably digging, ploughing, &c., by tending to force the shoulders forward, would still further hamper the movements of the upper portion of the chest and hence of the lung. The vulnerability of the apices is attributed under these conditions to diminished functional activity and consequently lessened power of resistance to the tubercle bacillus, which may therefore be able to effect a lodgment in this portion of the lung. While it cannot be seriously disputed that the range of movement of the upper portion of the chest is less than that of the lower parts of this structure, it is by no means proved that *relatively* the expansion and mobility of the contained lung are not as great in the former as in the latter situation. Indeed, it is probable, as Woods Hutchinson has pointed out, that the activity of the upper portions of the lungs has been underestimated. In any event it cannot be admitted that the theory under examination satisfactorily accounts for the peculiar constancy of the site of the apical lesion which is found from an inch to one and a half inches below the summit of the lung.

A modification of the theory which has just been considered suggests a mechanical explanation of the vulnerability of the apices. Thus in consequence of the imperfect expansion of the apices it is supposed that the air-cells in this situation more readily collapse or become choked with secretion, foreign matter, &c., and in this way the lodgment of bacilli is facilitated. In addition to the arguments already advanced the application of the dynamical laws under which air enters and leaves the lungs would be fatal to the tenability of this theory. A similar objection applies to the suggestion that the entrance of foreign matter, such as dust, bacilli, &c., is promoted by an increased patency of the bronchial tubes at the apex of the lung consequent on the comparatively fixed position of the upper portion of the thorax.

The theories based on suppositional abnormalities or imperfections of the circulatory conditions at the apex of the lung would hardly repay detailed discussion. Woods Hutchinson has recently approached the subject from the side of comparative pathology. He argues with great cogency that the apices from the comparative morphological standpoint are the portions of the lungs which are most unstable and therefore possess least vital resistance. He also shows that it is highly probable that the upper lobe of the right lung is morphologically more unstable than that of the left, a circumstance which if substantiated would explain the relatively greater vulnerability of the right apex.

There can be no doubt that there is a great deal of force in these arguments, but we venture to think that they do not cover the whole of the ground, nor do they offer a complete and satisfactory explanation of the peculiar susceptibility of the apices of the lungs to tuberculosis, in that they do not account for the singularly constant localisation of the lesions at a point which is situated roughly from one to one and a half inches below the summit of the lung.

We should like to preface our observations by pointing out that the constancy of the site of the apical lesion suggests to us a mechanical explanation of the special vulnerability of this portion of the lung. In searching for the conditions that might permit the operation of a mechanical cause it will be observed that the apices of the lungs, unlike the rest of the pulmonic tissue, are not contained within the thorax, but project dome-like from three-quarters of an inch to one and a half inches above the border of the first rib. The coverings of the apices consist, therefore, not of the firm wall of the chest, but of fascia, muscle, and skin, which under the most favourable conditions can offer, comparatively speaking, but an imperfect support to the lung at the outlet of the thorax. Now it sometimes happens that in the course of surgical operations in the supra-clavicular fossæ the upper surface of the pleural sac is exposed so that the movements of the subjacent lung can be seen. It has been noted in cases of this kind, as Woods Hutchinson testifies from personal observation, that the range of movement of the apices of the lungs is considerable. Indeed, this observer remarks that in one operation of this kind the way the upper surface of the pleural sac plunged about with the respiratory rhythm was "little short of appalling." We would point out that under conditions of this kind the movements of the apex of the lung must be *inverted* as regards their relation to the normal respiratory rhythm, inasmuch as the apex must be sucked into the thorax during each inspiration and protruded during expiration. Under normal conditions the support afforded to the apices of the lungs during ordinary breathing by the soft parts and sternal ends of the clavicles when the supra-clavicular muscles contract is probably sufficient to permit of the inflation of the apices during inspiration. With increasingly deep inspirations the inflation of the apices becomes relatively lessened, as is shown by the rise of pitch in the percussion note obtained in the supra clavicular fossæ. If the support afforded by the soft parts is diminished the inspiratory inflation of the apices becomes correspondingly lessened, and provided the loss of support progressively increases a time must come, for the reasons already given, when the movements of the apices become inverted in their relation to the normal respiratory rhythm.

Now, if these conclusions be well founded, the question immediately arises, "Do the conditions which give rise to an inverted movement of the apices of the lungs obtain in practice and operate in the production of disease?" The answer to this question, in our opinion, is emphatically in the affirmative for reasons which we will now adduce. Among the striking features presented by the chest of the ill-developed and weakly youth and young adult, and more particularly by the so-called "phthisical chest," which is but an exaggeration of the former type, are the forward displacement of the scapulæ and shoulders, and the maldevelopment or wasted appearance of the muscles supporting and acting upon the shoulder girdle, more especially of the sterno-cleido-mastoid, trapezius and pectoralis major. We have already pointed out that the support afforded to the dome-like projections of the lungs through the superior aperture of the thorax is largely provided by the sternal ends of the clavicles, the sterno-cleido-mastoid muscles and their fascial attachments and connexions. If the acromial ends of the clavicles are carried forwards the effect is to widen the supra-clavicular fossæ and thus to diminish the support afforded by the sternal ends of these bones to the apices of the lungs. Furthermore, if at the same time the sterno-cleido-mastoid muscles are maldeveloped or have undergone wasting the normal "trap-door" action which is exercised by these muscles and the clavicles over the superior aperture of the thorax is largely minimised or removed. It will appear, therefore, that under these circumstances the conditions which lead to an inverted movement of the apices of the lungs may be fulfilled. That they are fulfilled is shown clinically by the sucking in of the supra-clavicular fossæ during inspiration and by the change in the character of the percussion note which takes place when a deep breath is taken. Thus at the end of expiration the note elicited in the supra-clavicular fossæ is resonant, while at the end of inspiration it is either absolutely dull or its resonance is very greatly impaired. We do not think that this very important and suggestive fact has received the attention it deserves at the hands of clinical observers.

One of the pathological expressions of this inversion of the normal pulmonary movements may be the deposition of tubercle at a point in the upper lobe of the lung situated about from an inch to one and a half inches below the true apex, a site that is determined by the extent of the projection of the apices above the border of the first rib. The explanation of this peculiar localisation of the primary site of the tuberculous lesion is exactly parallel with the reason which accounts for the thin line of débris, &c., which collects where two opposing currents of air or water meet. In the case under consideration it is the "neutral" territory between the opposing currents formed on the one hand by the inverted movements of the apices and on the other by the normal movements of the rest of the lung. In other words, if foreign matter, including bacilli, can collect anywhere in the lung it is at this site that the collection is most likely to take place. The tendency to the accumulation of foreign material in this situation is increased also by the fact that under the circumstances expiratory effort is likely to drive both gaseous and solid matter up into the apices. Furthermore, the tract of lung situated immediately between the portion (upper) that undergoes the inverted movement and the portion (lower) that partakes of the normal respiratory rhythm would tend to remain comparatively immobile, and therefore to display diminished functional activity and consequently lessened powers of resistance to microbic invasion.

The greater vulnerability of the right apex as compared with the left still remains to be considered. Inasmuch as the right apex commonly rises higher into the neck than the left we suspect that the increased exposure and consequently greater liability of this side to become inadequately supported is sufficient to determine the slightly more frequent deposition of tubercle.

Our conclusions, therefore, stated generally, are that the vulnerability of the apices of the lungs to tuberculosis is largely determined by an alteration in the shape of the chest in conjunction with misplacement and deficient musculature of the shoulder girdle. Woods Hutchinson who has worked at the subject from the side of comparative morphology and pathology expresses similar views. The importance of the alteration in the shape of the chest and of the abnormal condition of the shoulder girdle lies, according to our view of the matter, in the modification which these changes induce in the dynamical relations of the superior aperture of the thorax, whereby the movements of the apices become inverted in their relation to the normal respiratory rhythm. It is in the altered dynamical relations of the respiratory mechanics at the apex that we find the conditions which favour the lodgment of extraneous matter in the upper lobes of the lungs. The exact position of the site of deposit is determined largely by the distance the apex rises above the border of the first rib, inasmuch as it is this extra-thoracic portion of lung which is acted upon by the forces that give rise to the inverted movement. Since the apex rises from an inch to one and a half inches above the border of the first rib we conclude that the site of deposit will be situated from an inch to one and a half inches below the summit of the lung. This mechanical explanation of the vulnerability of the apices of the lungs to tuberculosis in the human subject is the more interesting by reason of the fact that the proclivity to tuberculous disease of the basal lobe of the lung in cattle is in all probability likewise due to mechanical causes.

The practical bearing of the theory which we have advanced is the enormous importance of developing the muscles of the shoulder girdle with the object of "pulling the chest into shape," as Woods Hutchinson so ably and graphically puts it. To this end tree climbing, ball throwing, horizontal ladder and bar exercises—indeed, any muscular manœuvre which brings into play the great pectoral muscles should be sedulously and systematically carried out. Before leaving the subject we should like to suggest that the theory which we have put forward is pertinent to explain other abnormal conditions that occur at the apex of the lung, and in this respect we would call attention to the development of emphysema in this situation.

Reference.—Woods Hutchinson: Human and Comparative Pathology.

THE SURGICAL TREATMENT OF ULCERS OF THE STOMACH

WHICH ARE OR HAVE BEEN COMPLICATED WITH SEVERE HÆMORRHAGE.

BY C. B. KEETLEY, F.R.C.S. ENG.,
SURGEON TO THE WEST LONDON HOSPITAL.

IT is of practical importance to distinguish between severe gastric hæmorrhages and slight ones. In my experience there has so far been not much difficulty in placing individual cases in one or other of these two classes. Severe hæmorrhages are such as show, either by the vomit or by the stool, that pints, if not quarts, of fluid, chiefly blood, have escaped into either the stomach or the duodenum. It seems a comparatively secondary matter whether a given case is gastric, or affects the upper three and a half inches of the duodenum, which are quite accessible during any operation that may be performed to expose the stomach. If we are satisfied that a case is one of severe hæmorrhage from a peptic ulcer, we have made the first essential step. Precise localisation, though desirable, must generally be left to be determined by the operation, if one is performed. If anyone thinks the above preliminary remarks so obvious as to be superfluous let him read the most interesting debate on Mr. Mayo Robson's recent paper at Edinburgh[1] or Dr. Byrom Bramwell's clinical lecture,[2] and he will find in these scarcely any regard paid to the distinction between severe and slight hæmorrhages.

Both severe and slight hæmorrhages have their dangers, remote in the slight cases, immediate and remote in the severe ones. Cases of slight hæmatemesis are not, however, as a rule, treated mainly for the hæmatemesis, but on account of the disease of which the blood-stained vomit is a sign. I propose now to deal with three cases of the severe class which have come under my care in the past two years, and also to refer to the case of a personal friend of mine who was not, however, attended by me but who died abroad. These four form the total of my experience since April, 1899, when my interest was first awakened in the subject by my friend, Dr. Leonard Dobson, who had already come to the conclusion that the recent, though past, occurrence of severe hæmorrhage from the stomach indicated a condition requiring surgical treatment.

CASE 1. *Gastric ulcer adherent to the diaphragm and the pancreas which formed its base. Considerable hæmorrhages, the last nearly fatal; the adhesions separated and the ulcer scraped and sutured; recovery; recurrence of pain; gastro-enterostomy; cure.*—The patient, a female, aged 20 years, was anæmic but very well nourished. She had had three attacks of rather severe hæmatemesis, two while in the West London Hospital in October, 1898. In one of the latter she vomited a pint and a half of blood. After medical treatment under Dr. F. G. D. Drewitt she went out apparently quite cured, but in spite of careful diet the gastric symptoms returned in a month. She then had another very severe hæmorrhage, and Dr. Dobson, whose patient she was, brought her to the hospital with a view to operation. Her pain was in the epigastrium and between the shoulders. There was a tender spot two inches below the xiphoid as well as marked tenderness in the left hypochondrium. The special features of the operation (April 14th, 1899) were: (1) the position of the ulcer; (2) how it was found; and (3) how it was dealt with. 1. It was near the lesser curvature and œsophageal opening on the posterior surface and was firmly adherent to the diaphragm and the upper edge of the pancreas, which formed its base, as it had completely perforated. It was circular and seven-eighths of an inch in diameter. 2. The search for it was long and difficult. External palpation of the viscus discovered nothing. An opening was made in the anterior wall and with the finger inside the first part of the duodenum and all the stomach, except the part nearest the œsophageal opening, were reached and were systematically searched. Then a speculum was used. Lastly, the part where the ulcer proved to be was brought within reach of the tip of the left index finger, by long and very gentle dragging on the posterior wall with the right finger and thumb. 3. The treatment of the ulcer now involved division of the left rectus and prolongation of the median incision upwards to give room, as well as a sufficient perpendicular opening through the omentum into the lesser cavity of the peritoneum. Gauze packing was employed. Careful separation was made of the base of the ulcer from the pancreas and diaphragm; there was an area of thickening here two or three inches in diameter. The ulcer edges were now scraped, which procedure about doubled its diameter. Three silkworm gut sutures were passed, half an inch apart, through all the coats of the stomach, in such a way that the loops were outside and the ends inside the organ. The original opening in the anterior wall was now utilised in order to tie these three sutures with the knots inside the stomach. Although half an inch apart they had such a grip on the stomach wall that they seemed to close the hole completely. However, they were now backed up by a row of Lembert's sutures of fine silkworm gut. The anterior gastric opening was then closed by Lembert's sutures. Gauze drains were left in for four days. Uninterrupted recovery followed. Nothing but hot water and a little Apollinaris or lemonade were allowed for more than a week. Solid food was not allowed for a month. The highest temperature was 99·5° F. and the lowest 97·6°.

The patient remained well for some months, returning to work in the country. She then began to be troubled with pain and tenderness in the epigastric region again. On Oct. 19th, 1900, a second laparotomy was performed. No adhesions were found, but the lesser cavity of the omentum was not opened. An anterior gastro-enterostomy was done with a Murphy's button. The result so far (June, 1901) is apparently perfect, except that no sign of the button has been found either by x rays or otherwise. The patient is following her usual daily work and she has written: "I have never felt better in my life."

It is possible that ulceration recurred in this case or that adhesions of the site of the old ulcer to the scraped surface of the diaphragm (or the pancreas) occurred and made the movements of the stomach painful. It is possible that if I had fully dilated the pylorus at the time of the first operation—i.e., to an inside circumference of four and a half inches—I might, as in Case 3 (about to be related), have been spared the necessity of a second operation. For the notes of the case I am indebted to Mr. G. F. Briggs and Mr. O. Inchley.

CASE 2. *Severe gastric hæmorrhage; rest and opium and rectal feeding; no operation; death on the twelfth day.*—The patient was a female, aged 32 years. I was asked to see her on the morning of Sept. 25th, 1899, because, after fainting no less than five times in the preceding 24 hours and passing black stools, she had vomited three or four pints of dark blood or bloody fluid on the evening before. I saw the fluid in a bowl. She had suffered from pain after taking food for a week. I sent her into the West London Hospital, intending to see her again at my usual visit the next day, but as I sent her under a physician into a medical ward, and "out of sight is out of mind," I forgot all about the case until after the poor girl was dead. According to the note of Mr. T. Wood Hill, the house physician, on Sept. 25th her motions were black. As a rule the patient was constipated, she suffered from headaches, often from faints, and was pale in colour. Her abdomen was "resonant, very rigid, extremely tender." Rectal feeding was employed and the patient was given ice to suck. One-sixth of a grain of opium was given every six hours. On the 26th the note was: "Slept well; melæna this morning; motions fluid, blackish red." On the 27th she had slept well and there was no pain in the stomach. On the 28th the pain in the stomach was very severe and the stools were large and dark. On the 29th she was "quite comfortable" On the 30th three out of seven enemata returned. There were pain in the abdomen and great weakness. The pulse was poor before the enemata. Two-minim doses of solution of strychnine, "si opus sit," were ordered. On Oct. 2nd enemata and meat suppositories were given every four hours alternately. The pain was less. The pulse was of poor volume. On the 5th the gastric pain ceased. On the morning of the 7th the patient was suddenly seized with pain. The pulse was rapid and very poor in volume. There was no sickness. At 8 P M the pulse at the wrist was imperceptible. Venous transfusion was performed, four pints of saline solution being injected into the median basilic The temperature afterwards went up suddenly to 106·8° F. and the patient died at 4 25 A M. No post-mortem examination was allowed. Brandy had been given both by the mouth and with the enemata (two ounces per 24 hours) from Sept 28th, and bismuth mixture from Oct 4th. The temperature chart is interesting. The range was between normal and one degree subnormal until the final rise.

---

[1] The Scottish Medical and Surgical Journal, March, 1901.
[2] THE LANCET, March 9th, 1901, p. 687.

I am sorry to say that I did not remember to inquire about this case until some months had elapsed, when I was grieved to hear the course which things had taken. One question which arises in this case is, Had perforation and localised peritonitis taken place? I do not think so. Dr. E. A. Saunders and I now think that the patient's life might possibly have been saved by operation, and that the second day after her admission into hospital would have been the time to choose in this case. At all events, I did no good by "trying medical treatment first" and "waiting for a recurrence of the hæmorrhage."

CASE 3 *Long history of chronic gastric trouble; severe hæmorrhages; Loreta's operation (pylorus stretched to four and a half inches internal circumference); recovery; quite well up to one year afterwards.*—The patient was a woman, aged 39 years, who had been married for 14 years and had been a widow for nine years. She had had two children. There was a tuberculous family history (husband and son). She had suffered from indigestion since childhood and from flatulence. Since her husband's death she had worked hard and had suffered more from indigestion. She had had a cough for years. Pain began from one-quarter to half an hour after taking food. Lately the pain had been more delayed and was of a less defined character—a "sinking, uneasy sensation" In the preceding March she had a severe attack, vomiting "some quarts of blood." In October she brought up more blood This patient, like the first, was also placed under my care for operation by Dr. Leonard Dobson. She took liquid and light food well after admission and improved in appearance. The operation was carried out on April 20th. The patient had been prepared for several days by purgatives and enemata. A median epigastric incision was made. The pylorus was found to be very hard and thickened. It would not admit the tip of the little finger and it felt quite rigid. No ulcer was seen or felt; but it was not thought fair to the patient to add to her risk by making a prolonged and rigid search for ulcer. A Loreta's operation was decided upon, as I had previously seen an excellent and lasting result follow this operation when performed on a similar pylorus. Through a small opening in the anterior stomach wall a three-bladed anal dilator was passed through the pylorus until the blades were wholly inside the stomach and duodenum; 37 turns of the screw, made very gradually, dilated the pylorus to an inside circumference of four and a half inches The wound in the stomach wall was closed by three sutures penetrating *all* the coats and tied with their knots inside the lumen, and by a superimposed row of 12 Lembert's sutures. Two small drains were carried obliquely from the parietal wound to near the stomach wound and they were removed in a few days Some ether sickness occurred during the night. On the 22nd the patient vomited once and on the 23rd once. On the 26th she was very hungry. There are no other notes. Convalescence was rapid and uninterrupted. She was fed for a week on beef-tea by the mouth (half an ounce every two hours, after vomiting had ceased), and peptonised milk enemata containing plasmon. A week after the operation she also took by the mouth one drachm of milk every two hours, with plasmon, one drachm to four ounces of milk, and [illegible] soda and Benger's food, and on May [illegible] She went out well on May 26th and has remained well At Christmas she wrote, "I can now take quite ordinary food and have no signs of indigestion." The notes of the case were kindly supplied by Dr. Maurice Dee.

CASE 4. *Duodenal ulcer; perforation of pancreatico-duodenal artery; hæmatemesis and melæna; no operation; death.*—A military officer, aged 40 years, was taken into hospital with a history of severe recent hæmatemesis and melæna. He had just arrived at this place (in India) after a long journey. He had fainted while walking across the room with a glass in his hand. He had only just returned from leave in England, where he had been under treatment for a pain which came on regularly about an hour after retiring to bed—i e., about the time a late dinner would be passing into the duodenum. [illegible] but a precise diagnosis was [illegible] patient was relieved by treatment. In India the liver was suspected. He was placed on a milk diet when taken into hospital, but he died the next day. Post mortem an ulcer of the duodenum was found, perforating the pancreatico-duodenal artery. There were circumstances of special difficulty attending the diagnosis and treatment of this case which progressed chiefly during the long journey from England to India. This life was one of the highest value not only to the patient's relatives but to his country For the details of the case I am indebted to my friend and old house surgeon, Mr. H. G. Wharry. In India the patient was under the care of another old house surgeon of mine, an exceedingly able and painstaking man. The patient's family are intimate friends of mine, and an old patient of mine lay in the next bed in the Indian hospital. This case was thus brought under my notice in four distinct ways

Assuming that it is right for surgery to act in cases of severe gastric hæmorrhage the first questions which arise are *when* and *how* It is natural to turn for guidance to the experience of Billroth and his assistants, the latter still living and working with enthusiasm and with brilliance comparable to those of their great master. This school founded modern gastric surgery and has had a large share in its further development. Von Miculicz of Breslau gives a gloomy account of the result of operating during the progress of acute hæmorrhage. Only two patients had recovered out of a considerable number—one of Roux's and one of his own. He himself had lost three. Mr Mayo Robson has had a successful case—that of a woman who was operated upon on July 6th, 1900. Seven bleeding points were found Two were ligatured *en masse* and the other five stopped "on exposure to air." Posterior gastro enterostomy with bone bobbin was performed. There is another successful case just reported by Dr. Brunton Angus[3] The patient was attacked by venous thrombosis in both legs about a fortnight after the operation The ulcer was ligatured *en masse*. Many other cases will soon be reported as a result of the attention which is now being directed to the subject, and possibly not a few failures will be passed over in modest silence.

Now death from gastric hæmorrhage is nearly always death from *recurrent* hæmorrhage. Further, there is no need to operate quickly in order to avert peritonitis as in cases of perforation; and the patient is usually alarmed and depressed to fainting during the bleeding. Lastly, a day or two usually intervene between successive hæmorrhages. These considerations would lead one to defer operation until actually present hæmorrhage had ceased and shock had passed away. But one must not expect reaction after large hæmorrhages to restore to the pulse its original strength and volume. When the patient has fairly rallied and his or her extremities have become warm, with or without external heating appliances, if operation is decided on the sooner it is done the less will be the risk of being overtaken by another (and possibly fatal) bleeding.

The next consideration is the *mode* of operating. It must be remembered that while the gastric ulcers which perforate and cause peritonitis are nearly all on the anterior wall, those which perforate and bleed are, in a large proportion, on the posterior wall and especially such as adhere by their bases to the pancreas or to its near neighbourhood. Therefore, when these latter have been exposed by operation it has generally been found difficult simply to take up the bleeding point and to tie it securely. Resort has been had either to ligature of the ulcer *en masse* or to the actual cautery, and the result has been disastrous[4] I am inclined to think that I was fully justified in my case in preferring to separate the adhesions of the stomach to the pancreas and diaphragm, scrape the ulcer and close the resulting gastric wound by suture. This was, as I have said, a long process, but if a patient is in fairly good condition, is kept warm, is not allowed to bleed, and is not over-dosed with anæsthetic, and if also the vigilance of the antiseptic precautions is not allowed to relax, I do not believe that a moderate prolongation of an operation seriously endangers its success. But I hold it to be of the first consequence, especially with feeble subjects, to produce only so much anæsthesia as is necessary to protect the patient from serious pain. The dose should not be increased as a luxury for the surgeon. I do not recommend separation of a bleeding ulcer from the pancreas or the diaphragm as a routine procedure, because I think shorter and easier measures will generally suffice.

---

[3] Brit. Med. Jour., March 23rd, 1901

In these days the old general rule of surgery to cut down upon a bleeding vessel and to tie it is modified by many exceptions, especially in parts where compression can be [illegible] ssion is seldom if ever [illegible] Even temporary pressure [illegible] upon to permanently check bleeding from the vessels of the stomach. Experience of gastric operations proves that, where practicable, a ligature should be put on before removing the forceps. Not only has it often proved difficult to find the bleeding point or points in operations for gastric hæmorrhage, but also, when found, the source of bleeding has sometimes proved so friable or in such a situation that effective ligature, even *en masse*, has not been possible. And, as I have already said, the cautery has not given good results. There remain, however, at least three other powerful agents which may be used in nearly every part of the body as protective against recurrent hæmorrhage, viz: (1) rest (local and general), (2) aseptic measures, and (3) gauze (especially iodoform gauze) packing. The first two can be used more or less successfully by the physician, but they can be effected more thoroughly and more lastingly by the surgeon, and the third, of course, can only be employed by the surgeon.

It is well known that the arrest of bleeding from an eroded vessel in the stomach is brought about by the formation of a clot in it. It is often assumed when the bleeding recommences that some excitement of the circulation has displaced the clot. From what takes place in regions of the body more open to observation I should infer that usually not mechanical displacement but septic disintegration has been the chief agent in starting the bleeding afresh. What a difference there is in the value of plugging in the present as compared with the past! That difference is mainly due to the fact that formerly a septic wound used to be plugged with septic material, while now an aseptic wound is plugged with aseptic or with antiseptic material. No doubt the secretions of the stomach, especially of the normal stomach, have a bactericidal power, but examinations of matters vomited show that power to be limited. In a case of recent severe hæmatemesis there is a stomach containing blood and perhaps food at the temperature of the body and in contact with a diseased area, the ulcer, and with a mucous membrane not secreting normally.

The stomach can be washed out through the gullet, and some medical men recommend hot-water lavage for cases of hæmatemesis. It is rather a disturbing process of which I have had no experience in cases of hæmorrhage, but I should hesitate to condemn it on mere *a priori* grounds. An objection to it is that if the asepticity of the stomach is to be preserved the lavage must be frequently repeated, and in many patients it can only become a gentle process when the patient has been long accustomed to it There is also a slight risk of perforating a diseased stomach. And what if the diagnosis were wrong and the stomach already perforated!

If a stomach is opened and cleansed by the surgeon, how is the cleansing or asepticising to be made permanent or at least enduring? A very extensive experience by various surgeons agrees that if, by a successful gastro-enterostomy or pyloroplasty, or even mere dilatation of the pylorus, we remove all spasmodic or other obstruction to the free flow of stomach contents into the small intestine, a great and a rapid improvement takes place in the health of the stomach. Indigestion ceases and ulcers heal. In ordinary cases, therefore, one of these operations alone would suffice. Mr. Caird recommends the performance of a gastrostomy as a mode of giving rest to the stomach and regards such a procedure as analogous to one for drainage of a diseased urinary bladder. Mr. M'Gillivray points out an essential difference: urine is always flowing into the latter, but we are not obliged to be always putting food into the stomach. Moreover, Mr. Caird suggests that the gastrostomy should be done by Witzel's method. The calibre of the small rubber drain or catheter generally used in Witzel's gastrostomy compares unfavourably for drainage with the one-and-a-half inch or two-inch diameter of a gastro enterostomy wound.

A question with a practical bearing is *how* do gastro-enterostomy, pyloroplasty, and Loreta's operation come to act so beneficially on peptic ulcers? The explanation generally adopted is that they prevent stasis of the stomach contents due to constriction of the pylorus But duodenal ulcers lie beyond the pylorus altogether, and peptic ulcers are found up to, but not beyond, where bile and pancreatic juice enter the duodenum. It is reasonable to infer that the presence of these juices is a protection against gastric ulcer. We were, most of us, I think, until recently under the impression that much bile in the stomach would cause discomfort and probably vomiting. A remarkable case is reported by Mr. B. G. A. Moynihan[5] After an accident which completely separated the duodenum from the jejunum, that surgeon closed the distal end of the duodenum and did a gastro-jejunostomy. All the secretions of both the liver and pancreas now necessarily only reached the intestine by flowing backwards through the stomach. The patient lived for two months in "perfect health" Death then resulted from perforation caused by the Murphy's button.

I suggest that the curative effect of gastro-enterostomy, &c., is due in some measure to the passage of bile and pancreatic juice into the stomach. My colleague, Mr. L A Bidwell, tells me, as supporting this suggestion, that traces of bile can be found in the stomach contents after gastro-enterostomy.

To return for a moment to Mr. Caird's suggestion already referred to no mere gastrostomy would bring bile into the stomach. Still, it must be admitted that a sufficiently *large* gastrostomy opening would permit frequent and complete lavage of the stomach through it, and the patient could assist this by swallowing copious draughts of hot water—an act which would be very grateful to him and tend to remove one of the sources of distress which patients fed wholly by the rectum have to endure. I, therefore, think that a simple direct gastrostomy wound, large enough to admit the finger, might have been good practice in such a case as that of the patient in Case 2 *suprà;* and that if performed on the day after her admission into hospital it would have saved her life, especially if the pylorus had been well dilated at the same time During the operation a quick search for the bleeding point might have been successful, but a prolonged search would not have been justified considering her state. The proper anæsthetic would have been gas with oxygen. I have tried it for gastrostomy and can strongly recommend it. Mr. R. W. Lloyd was the administrator It has the great advantage of not being followed by vomiting.

If there is anything in the hypothesis that the cure of peptic ulcers by certain operations is due partly to regurgitation of the secretions of the liver and pancreas it would be reasonable to treat gastric ulcers by administering orally preparations of those secretions or perhaps of the fresh glands themselves; and all the more so, because even the hypertrophy and contraction of the pylorus often present with gastric ulcer—e g., in Case 3—are probably of reflex and irritative origin. The ulcer, the hyperacidity, the pyloric contraction opposing the stomach movements, and at least one other as yet unknown cause, probably bacterial, act and react to exaggerate each other. Attack one or two of these successfully and the rest are weakened. Get the ulcers into a healing state and it is likely that the pyloric contraction, unless cicatricial, will abate. This is one of several reasons why I respectfully differ from those who altogether discard Loreta's operation. But "that is another story."

---

[4] Von Mikulicz writes that, besides his successful case, "I have opened the stomach three times for acute hæmorrhage. The ulcer lay in the neighbourhood of the pylorus in the posterior wall and adhered in two of the cases to the substance of the pancreas. The base and surroundings of the ulcer were so much infiltrated that securing the vessel with a ligature or with a suture was out of the question [illegible] with applying the therm[illegible] [illegible] specific. In a publication last year, 1900, von Mikulicz does not modify his opinion or add to the above facts

[5] Brit. Med. Jour., vol ii, 1900, p. 1403, and more fully on May 11th 1901.

It is possible that some readers, bearing in mind that I am only a surgeon, may think that I have formed an exaggerated idea of the seriousness of gastric hæmorrhage from only hearing of very severe cases. In truth, I am brought into contact with many cases of lateral curvature of the spine which have a *history of present or past symptoms of gastric* ulcer and slight hæmatemesis.

There remains for consideration not so much the value as the applicability of iodoform gauze packing. The objection usually urged to it is that a gastrostomy opening would have to be left for its removal. But such an opening as I have endeavoured to show, in partial agreement with Mr. Caird, might not be an unmixed evil. Or a small piece of gauze could be left in the stomach to pass per anum when free. It could be fixed against the bleeding surface by sutures attached to neighbouring points of the stomach wall (mucosa and submucosa). Every case must, of course, be considered on its own merits, and in the present state of our knowledge decision must often be difficult, both to the physician who does justice to surgery and to the surgeon who acknowledges, as he must, that gastric hæmorrhage treated medically does not, as a rule, prove fatal, even if severe, and that such operations as gastro-enterostomy and the excision of gastric ulcer are themselves not free from danger. But the dangers of gastro-enterostomy diminish with increasing experience of the individual operator and with the general advance of gastric surgery. Murphy's button is most likely the best means of performing gastro-enterostomy, especially for the use of the operator who is deficient in general experience. The one objection to it is its tendency to fall back into the stomach or to stick in the opening instead of passing on through the intestine; both these accidents have occurred to me but they were easily dealt with. It is a quick mode of operating, but it should not be applied in a hurry. I suspect that many failures attributed to it have been really due to want of care and deliberation in placing, adjusting, and fixing it and the margin of the two wounds it has to keep in contact, and in some cases, to faulty construction of the button.

A collection of 75 operations done in various ways by Billroth, von Hacker, Czerny, and von Miculicz, made by the last-named showed the following decreasing percentages of mortality. The operations were for non-malignant stricture of the pylorus and for gastric ulcer "without severe complication." To the end of 1886, 62·5 per cent.; 1887 to 1890, 42·1 per cent.; 1891 to 1894, 22 2 per cent.; 1895 to the beginning of 1897, 10 per cent. Von Miculicz gives the following decreasing mortality percentages for the individual operations, the periods compared being before the end of 1890 with 1891–97. Resection, 39 3 per cent., reduced to 27·8 per cent.; gastro enterostomy, 43·5 per cent., reduced to 16 2 per cent.; pyloroplasty, 23 8 per cent., reduced to 13 2 per cent These figures are calculated from a total of 234 cases, collected from various sources. There can be no doubt but that increased personal experience in the selection of cases, in the choice of operation and in the mode of operating and increased practice in gastric surgery are capable of further reducing the death-rate, and, indeed, they seem to have already done so.

With regard to the degree of danger of gastric ulcer in general when treated medically, I think that those physicians who speak of having treated so many hundreds of cases with, say, 95 or 98 per cent. or even 100 per cent. of recoveries are not giving their experience quite correctly. I suspect that inquiry would show that many of these cases had not been under the observation of these physicians for more than a few months, whereas gastric ulcer goes on, or keeps recurring only too frequently, for years. My patient in Case 3 had had gastric symptoms for 25 years, which represent about 150 of what some people seem to call "cases."

I think the statistics advanced to prove Loreta's operation to be no safer than gastro-enterostomy must be fallacious Loreta's operation went out of fashion at a time when all these gastric operations were more dangerous than they are now. It is certainly free from one of the serious complications of gastro-enterostomy—viz., the danger of the so-called "vicious circle," the passage of the stomach contents, not into the efferent loop of intestine, but into the afferent and so backwards through the duodenum into the stomach. The use of Murphy's button seems to protect against this complication of gastro-enterostomy. Why should mere dilatation of the non-cicatrised pylorus be dangerous? True, it involves a gastrotomy unless done by invaginating the stomach wall on the finger. But a mere gastrotomy is a very safe procedure, as is proved by surgical experience in the removal of foreign bodies. But in favour of gastro-enterostomy remains this possibility, that it may be more likely to give a permanent cure of the ulcer itself and of the chronic gastric catarrh. Of course, a pyloroplasty can effect every object attainable by Loreta's operation, but it must be a more serious procedure except in the case of a cicatrised pylorus so rigid that it would be dangerous to stretch, and then a pyloroplasty might not be applicable.

One of the strongest arguments in favour of surgical treatment of gastric cases which have bled severely is that it generally gives permanent health to the stomach.

Literature.—Von Miculicz: Die Chirurgische Behandlung des Chronischen Magengeschwürs, Twenty-sixth Congress of German Surgical Society, reported in Centralblatt fur Chirurgie, 1897, p. 69 Doyen: Traitement Chirurgical des Affections de l'Estomac et du Duodénum, Congress of French Surgeons, Revue de Chirurgie, 1896, No 11, p. 663. Talma: Indicationen zur Magenoperationen, Berliner Klinische Wochenschrift, 1895, No. 15. Roux: Congress of French Surgeons, 1893. Brenner: Wiener Klinische Wochenschrift, 1896, No. 48 (all the above four references are from von Miculicz). Körte · Twenty-sixth Congress of German Surgical Society, Centralblatt für Chirurgie, 1897, p 97. Moynihan: Brit. Med. Jour., 1900, vol. ii., p 1403 Mayo Robson: Gastric Hæmorrhage and its Surgical Treatment, Edinburgh Medico-Chirurgical Society, Feb. 6th, 1901, THE LANCET, Feb. 9th, 1901, p 375. Caird · Scottish Medical and Surgical Journal, March, 1891 M'Gillivray: Ibid. Byrom Bramwell: THE LANCET, March 9th, 1891, p 687. Brunton Angus: Brit. Med. Jour., March 23rd, 1891

Grosvenor-street, W.

VITALITY AFTER SEVERE INJURY.

BY W. H. CLAYTON GREENE, B.A. CANTAB., M.R.C.S. ENG., L.R.C.P. LOND.

WITH reference to the power of living after severe injury, in illustration of which a case of rupture of the inferior vena cava with survival for two and a half hours was recorded by Dr. Adrian Caddy in THE LANCET of May 25th, p. 1464, I think the following case of perforation of the stomach, diaphragm, pericardium, and heart with other injuries in which death occurred after nine hours may be of interest

A man, aged 49 years, was admitted to St. Mary's Hospital on April 2nd, at 12 noon, under the care of Mr. H. W. Page, who has kindly given me permission to publish these notes. The patient, while working on a ladder in Wimpole street, fell on to the area railings and impaled his left side. When seen in the casualty department he was conscious but was suffering from severe shock. His pulse could not be felt, but the heart could be heard beating faintly, rapidly, and irregularly. He had evidently lost a great quantity of blood, his clothes being completely soaked by it. His forehead was bathed in perspiration and his extremities were very cold On examining the injured part a large gaping wound was found in the left hypochondriac region from which omentum protruded and the blood flowed; several ribs appeared to be fractured, but no detailed examination was made at first owing to the condition of the patient. Four minims of strychnine were injected at once and the patient was taken to the wards where hot bottles were placed round the body and limbs A pint of saline solution and two ounces of brandy were given by the rectum and, the left median basilic vein having been dissected out, two pints of saline solution were injected into the circulation. The patient's condition improved so much—the pulse being now easily felt, about 118—that at 1 25 P.M. the wound was more thoroughly explored, but nothing definite as to the source of the bleeding could be made out and it was therefore plugged with cyanide gauze. Four minims of strychnine were injected again at 1 30 P.M. Mr. Page, on arrival at 3.15 P.M., saw the patient and decided to attempt the controlling of the hæmorrhage which still continued Since his admission the patient had been conscious and could reply to questions, but he complained of great pain in the cardiac region He was taken to the theatre and was partially anæsthetised and the wound was again explored, but it was found that the injury was so extensive as to render any surgical interference useless Collapse came on rapidly, so three pints of saline solution were injected per rectum and into the subcutaneous tissues Four minims of strychnine were repeated The patient was taken back to the ward where he regained consciousness, but he gradually sank and died at 9 P M

At the post mortem examination the following injuries were revealed There were a large irregular wound in the left hypochondriac region with fracture of the sixth, seventh, eighth, ninth, and tenth ribs, complete perforation of both walls of the stomach from before backwards, perforation and laceration of the diaphragm, extensive collapse of the left lung, and perforation of the pericardium and of the left ventricle of the heart (this latter organ is now in the museum) The pleural cavity on the left side was full of blood and the stomach had been pushed right up through the opening in the diaphragm There was a small amount of blood stained fluid in the peritoneal cavity but very little in the pericardial cavity

I think this case is of interest as illustrating the great vitality of the body after severe injury and also as a proof of the great value of injections of saline solution It, indeed, seems marvellous that a man could survive for nine hours after receiving such injuries as those described above

St Mary's Hospital

THE MORBID ANATOMY AND ORIGIN OF THE VARIOUS PRESYSTOLIC MURMURS HEARD AT THE APEX

By O C GIBBES, M D ABERD, M R C P LOND,
PHYSICIAN AND PATHOLOGIST TO THE HOSPITAL FOR DISEASES OF THE HEART, SOHO-SQUARE, W

THE assumption that the presystolic murmur is pathognomonic of mitral stenosis has steadily lost ground since Flint first drew attention to its occurrence in cases of aortic regurgitation where no stenosis of the mitral orifice was found on post mortem examination Subsequent experience has shown us that there are various other conditions in which we may have a presystolic bruit sufficiently similar to that of mitral stenosis to render correct diagnosis difficult, if not impossible

The morbid conditions that have been found in cases where the presystolic murmur has been heard during life may be briefly classified as *follows* —1 Stenosis of the mitral orifice, with or without any other valvular disease 2. Obstruction of the mitral orifice by a pedunculated thrombus attached to the left auricle[1] 3 The heart dilated and hypertrophied, the mitral orifice dilated, the cusps and chordæ normal, the aortic orifice competent, and the valves normal[2] 4 Dilatation and hypertrophy of both ventricles; the curtains of the mitral orifice thickened and rough at their margins and admitting three fingers; the aortic valves thickened but competent[3] 5 Aortic insufficiency, left ventricle much hypertrophied (*a*) All the aortic segments contracted and insufficient, but the mitral orifice competent and the curtains normal[4] (*b*) Weight of heart 32 ounces, aortic segments all thickened and shrunken The mitral orifice dilated (admitting three fingers easily) and the anterior cusp thickened, but the chordæ not thickened or shortened[5] (*c*) Weight of heart 35 ounces, aortic valves all thickened, but only slightly deformed The mitral orifice much dilated (admitting five fingers), the cusps and chordæ normal[6] (*d*) Heart weighed 19 ounces. The aortic valves incompetent and much deformed, the anterior and right posterior cusps united along their margins so that the regurgitant current must have been directed towards the anterior mitral valve; the mitral orifice dilated (admitting four fingers), the cusps and chordæ thickened but not shrunken[7] (*e*) Weight of heart 32½ ounces The right posterior aortic valve deformed, the regurgitant current being directed towards the septum ventriculorum The mitral orifice normal in size and the cusps healthy[8] 6. Aortic stenosis, heart weighed 27½ ounces; the aortic valves fused together but permitting regurgitation, the current impinging on the anterior mitral flap The mitral orifice dilated (admitting three fingers readily), but the curtains not shrunken or thickened[9] 7 Hypertrophy of the left ventricle in kidney disease The pericardium healthy, aortic valves competent, one slightly thickened; the mitral orifice normal size, the anterior flap slightly thickened, and the chordæ thickened and shrunken[10] 8 Hypertrophy and dilatation of the right ventricle, secondary to atheroma of the pulmonary artery and its branches[11] The pericardium adherent throughout. The heart dileted and hypertrophied The aortic valves normal The mitral orifice dilated The valves healthy or thickened[12]

In addition to the above a pseudo presystolic murmur is sometimes heard at the apex in aortic regurgitation, owing to the heart's action being quickened and the ordinary aortic regurgitant murmur being so prolonged that it almost runs into the first sound This, however, is not the murmur described by Flint, for on listening carefully the interval between the murmur and the first sound can be detected, and it generally becomes quite distinct after the patient has had a rest I have had several of these cases and in one instance I was able to verify my diagnosis Sansom[13] has also recorded one case in which a post mortem examination was made

Phear,[14] in an article published in 1895, collected post-mortem records of 46 cases where a presystolic murmur had been present without there being any actual stenosis of the mitral orifice, but these cannot be taken as any numerical guide to the frequency with which this form of presystolic murmur occurs in actual practice

Guiteras[15] and several subsequent writers have expressed the opinion that it is frequently heard at the apex when mitral stenosis is absent, but I think that this statement requires some qualification, for although it is not a very infrequent occurrence when dilatation and failure occur in [illegible]
an hypertrophied [illegible]
ing the latter half [illegible]
running up to the [illegible]
noted as "presystolic" in our case books, yet the murmur described by Flint is very rare indeed in spite of the frequency of aortic regurgitation

In discussing the character of these murmurs it is as well to take that of mitral stenosis as a standard for comparison, the peculiarities and variations of that murmur being well known Taking first the typical murmur of that disease we may ask, "Is it ever present under other morbid conditions?" The answer to this question is undoubtedly in the affirmative The murmur itself may be just as harsh, and although the first sound may not be as slapping as that of mitral stenosis it may be much sharper than normal, the whole bearing such a striking resemblance that it is impossible to distinguish between them

I have only met with one case of Flint's murmur, and unfortunately I was unable to verify my diagnosis as a post-mortem examination was refused, but the physical signs were unmistakeable and left no doubt concerning the absence of mitral stenosis The chief points of the case were as follows

The patient was a male, aged 36 years He had had rheumatic fever in 1879 and 1890 The first signs of failing compensation appeared in 1888 When I first saw him in November, 1899, compensation had broken down and he complained of anginal pains, dyspepsia, and dyspnœa. The apex beat was very diffuse and could not be located by palpation, but on percussion and auscultation it appeared to be in the sixth left intercostal space, in the mid-clavicular line. Pulsation was marked in the carotids and the pulse was irregular and collapsing. On percussion the right limit of dulness was two centimetres beyond the right border of the sternum in the fourth intercostal space. On auscultation the first and second sounds of the heart were distinct at both base and apex, the second being reduplicated over the whole præcordial region. A loud double aortic murmur was heard over the base of the heart, while below the level formed by the junction of the fifth costal cartilages with the sternum the aortic systolic murmur was lost, the diastolic became shorter, and a presystolic began to be heard, gradually increasing in intensity towards the mitral area. In the sixth left intercostal space, the mid-clavicular line (presumably the apex), the second sound was reduplicated and following the reduplication a short distinct early diastolic murmur could be heard, and after a soundless interval a harsh crescendo presystolic murmur, occupying about a third of the diastole and ending abruptly in a sharp first sound. It was not a "slapping" first sound, but was certainly sharper than normal. I then examined the patient in the recumbent posture and found the aortic diastolic still present at the apex, but the harsh presystolic was absent and a blowing systolic was heard instead; there was no trace whatever of any presystolic murmur and the sharp character of the first sound was gone. I again listened when he was standing up and found that the presystolic murmur had returned. Three days later I again examined him in both positions and found the same physical signs present. I therefore listened at the apex while he was in the act of lying down in order to note the transition from the presystolic murmur to the systolic. I found that after he had lain down there were two or three beats with the presystolic murmur present; then it seemed, as it were, suddenly to fizzle out with a kind of splashing sound (it is very difficult to describe correctly these transition sounds) and the murmur resolved itself as already described, the aortic diastolic being conducted to the apex, where a blowing systolic murmur was heard, there being no trace of any presystolic sound whatever. The case is an interesting one apart from the alteration in the rhythm of the murmurs because I listened knowing that I was dealing with a Flint's murmur and could not detect any practical difference from the ordinary murmur of mitral stenosis. The transition sounds gave me the impression that when the patient was standing something had become invaginated into the mitral orifice obstructing the flow of blood from the auricle to the ventricle, and that on lying down it had been dragged out permitting regurgitation to take place. Taking into consideration the rhythm of the murmurs and the nature of the transition sounds I think that there must have been some reversal of blood-currents, whether due to some other cause than the force of the regurgitant blood-current on the anterior mitral flap can be only a matter of conjecture in the absence of post mortem evidence, but two causes appear to have been in operation. First, a larger expenditure of muscular force was required of the heart in the erect than in the recumbent position and therefore the muscle vibrations would be louder; and secondly, gravity would cause the regurgitant current to impinge on the anterior mitral flap with greater force in the erect than in the recumbent posture.

---

[1] Ewart and Rolleston: Transactions of the Clinical Society of London, 1897 vol xxx. p. 190

[2] Fisher: THE LANCET March 9th 1895, p 603.

[3] C. Turner: St. Thomas's Hospital Reports, New Series, 1878 vol vii, p. 209

[4] Flint: American Journal of the Medical Sciences, vol. xliv, New Series (Case 2) p. 52, vol. xci, new series, p. 36.

[5] Maguire: Medical Chronicle, June, 1890, pp 182 and 183, Case 1

[6] Lees: American Journal of the Medical Sciences, vol c., New Series p 463, Case 3.

[7] Ibid., p. 464 Case 4

[8] Fisher: THE LANCET, March 9th, 1895, p 603, Case 1

[9] Lees: loc. cit, p. 462 Case 11

[10] Phear: THE LANCET, Sept. 21st, 1895 p 716

[11] Fisher: THE LANCET March 9th, 1895, p. 609.

[12] Fisher: Medical Press and Circular, Oct. 10th, 1894, pp. 361-384

[13] Diagnosis of Diseases of the Heart and Thoracic Aorta, p 384

[14] Loc. cit.

[15] Transactions of the Association of American Physicians, 1887 vol ii., p. 38

When compensation fails in mitral stenosis a less typical presystolic murmur may be heard, bearing the character of a low-toned rumble increasing in intensity towards the end of the diastole and terminating in a "slapping" first sound. These physical signs are sometimes closely imitated in young patients with adherent pericardium; the murmur, however, under these circumstances is extremely variable in rhythm and the presystolic may rapidly change into an early or mid-diastolic murmur, the latter being of more frequent occurrence than the presystolic, owing probably to the fact that not only is the heart dilated and hypertrophied, but there is also a varying amount of irregular fibrosis present.

The third form of murmur that is heard in mitral stenosis occurs when the heart's action is much quickened and compensation has failed still further. Under these conditions a short presystolic murmur may be present that is little more than an extension backwards of the first sound. This form may be imitated in any other form of valvular disease when compensation is failing. It is fairly common and completely passes off when compensation returns.

Various explanations have been given of these murmurs, Gairdner's[16] theory being now generally accepted with regard to its occurrence in mitral stenosis (I am assuming that these murmurs are all presystolic in rhythm). His view is that "with very rare exceptions such murmurs depend upon contractions of the auricular ventricular orifices and consequent interruption to the flow of blood out of the auricle during its contraction" and only occur when the blood is being expelled from the auricle. Whether the murmur is due to "vibrations of the stenosed mitral curtains"[17] or to "audible manifestations of the eddy in the blood-stream"[18] does not for the moment concern us, for I cannot agree with the theory that it is solely due to the flow of blood from the auricle to the ventricle. On the contrary, I hold that it is a compound sound and consists of three parts. 1. Audible vibrations of the muscular wall of the right ventricle. Bramwell[19] when writing on reduplication of the second sound tells us that "the right ventricle is by reason of the increased blood-pressure in the right cavities of the heart first stimulated to contract." That exactly expresses my views of what takes place in mitral stenosis, for I believe that in consequence of the high tension produced in the pulmonary blood-vessels by stenosis of the mitral orifice the right ventricle commences to contract before the left and gradually assumes not only the functions but the rhythm of the left auricle. The result of this partial asynchronism is that the muscle vibrations of the right ventricle are heard while the left is in diastole, imparting a crescendo character to the murmur and causing its intimate connexion with the first sound. A further result of this is that the pulmonary valves close before the aortic. 2. The vibrations produced by the flow of blood from the left auricle to the left ventricle and called by Gairdner the "auriculo-systolic murmur." 3. The "slapping" first sound. This forms an integral part of the murmur in consequence of the muscular and valvular portions of the first sound being only partially asynchronous and the former constituting a portion of the murmur.

Several theories have been brought forward with a view to explain the presence of a presystolic murmur in aortic regurgitation. Flint,[20] Guiteras,[21] Bramwell,[22] Maguire,[23] Sansom,[24] Potain,[25] Lees,[26] and Rolleston[27] consider it due to vibrations of the anterior mitral cusp although they differ as to the mode in which these vibrations are produced. Others agree with Gibson[28] who suggests that "the mingling of the two currents in the neighbourhood of the apex of the heart" is probably the cause. Phear[29] considers that it is due to relative or actual shortening of the chordæ tendineæ causing virtual narrowing of the mitral orifice; Fisher,[30] referring more especially to the presystolic murmur of adherent pericardium, suggests that "possibly there is a loss of muscular tone in consequence of deranged nervous mechanism or some unusual alteration in muscular action" and "vibrations of the muscle wall are set up by the inrush of blood on contraction of the auricle." The theory I myself have brought forward with regard to mitral stenosis is equally applicable to all presystolic murmurs.

Comparing the above theories I find that Gibson's and my own are the only two that explain the occurrence of the murmur in the various morbid conditions I have detailed I cannot agree with Gibson's theory because I do not believe that sound can be produced in the blood eddies themselves, for Nicholl's researches show that "it is impossible to produce sound in a moving liquid as long as it is free from air."[31] Furthermore, we know that the murmur is present regardless of the rapidity of the blood-currents, being equally present when the mitral and aortic orifices have been dilated, contracted, and normal. I am more in agreement with Fisher's theory, but it will be seen that while agreeing with his premisses I differ from his deductions.

---

[16] Clinical Medicine, p 575

[17] Flint · American Journal of the Medical Sciences, 1886, vol. xci., new series, p 33

[18] Rolleston Clinical Journal, Dec 1st, 1897, p. 86

[19] Diseases of the Heart, p 164.

[20] American Journal of the Medical Sciences, vol. xliv., new series, p. 53.

[21] Loc. cit

[22] Bramwell. American Journal of the Medical Sciences, 1888, vol. xcv., p. 236

[23] Medical Chronicle, June, 1890, p 186.

[24] Loc. cit, p 385

[25] Gazette des Hopitaux, Paris, 1883, p 295

[26] Loc cit, p 467

[27] Loc. cit., p 87.

[28] Diseases of the Heart and Aorta, p 501.

[29] Loc. cit, p 718

[30] THE LANCET, March 9th, 1895, p 608

[31] Journ. Phys. Camb and Lond., vol. xx, 1896, p 413.

Taking into consideration the character of the murmur when it occurs in diseases other than mitral stenosis we find that both the typical murmur and its variations are closely imitated. These variations in the presystolic murmur of mitral stenosis are generally considered to be due to changes in the intensity of the vibrations produced by the auriculo-ventricular blood-current, as a result of failure of compensation. But this loss of compensation is almost entirely due to failure of the muscular power of the right ventricle and my contention is that the variations that occur in the murmur are due to feebleness or absence of the muscle tones consequent on such failure, the vibrations caused by the auriculo-systolic blood current playing a minor part. The heart remains compensated as long as it has sufficient muscular power to supply the left ventricle with enough blood to carry on the circulation. As the constriction increases and more muscular force is required, so the murmur becomes louder and more and more prolonged, being augmented during its latter part by an increased intensity in the vibrations caused by the auricular ventricular blood-current. When compensation fails the valvular vibrations are lost and the muscle tones diminish, thereby lessening the intensity of the murmur. Ultimately a low-toned rumble only may be heard ending in what is little more than an extension backwards of the first sound, or should the heart fail still more both the muscle and valvular vibrations may be absent and a long slapping first sound alone remain.

In some cases of aortic regurgitation the presystolic murmur, like that of mitral stenosis, is probably due to the two sets of vibrations above mentioned, but this is not the case with all, for some of the morbid conditions which I have detailed render it impossible that any abnormal vibrations could have been produced at the mitral orifice; in these cases, therefore, the murmurs are due to muscle vibrations alone. In Ewart and Rolleston's case a pedunculated thrombus was attached to the posterior and lower part of the foramen ovale, it "passed through the mitral valve and projected into the ventricle as a purple mass." The right ventricle was "dilated and hypertrophied," the left was "somewhat dilated and its walls a little hypertrophied," and the aortic valves were healthy. The mitral orifice admitted four fingers, the flaps "were perfectly healthy, but as regards the function of closing the orifice their occupation was usurped by the clot, which kept the flaps permanently apart and at the same time in sufficiently close contact with it to interfere with any free vibrations of their membranes." Ewart and Rolleston explain the origin of the murmur as follows: "We may infer that the murmur and the thrill which preceded systole were produced by vibrations in the blood-stream and that the considerable diminution in the area of the orifice was in itself, apart from its shape, and in the absence of any vibrating edge or lip, a sufficient cause for their production." My objection to this theory is that vibrations of blood are not audible; as Clifford Allbutt[32] says: "The blood does not run in the air as water over gravel; the murmur we hear is due to vibrations of surrounding structures—chiefly the walls of the heart, set up by the vortices within them; the heart is the fiddle and the blood is the bow." And even if this murmur was solely due to vibrations of the walls of the heart, initiated in this manner, why do we also get a presystolic murmur when the orifice is dilated, or why, as Fisher[33] points out, are the eddies of blood which must occur among the interstices of the chordeæ tendineæ and columnæ carneæ during the diastole of the normal heart always silent? The murmur may in part have been due to vibrations produced in the walls of the heart by the blood-stream, but in my opinion it was chiefly due to the muscle vibrations of the right ventricle.

The case of hypertrophy of the right ventricle referred to by Fisher is very interesting. I find from his paper[34] (I have been unable to get any further notes on the case) that the woman in question was an out-patient at Guy's Hospital in 1888 under the care of Dr. Wooldridge, having "a well-marked presystolic murmur and a soft systolic murmur," at the apex. After admission the presystolic murmur disappeared, in consequence I presume of the rest, and a soft diastolic murmur was audible between the nipple and the sternum. Four years later the patient was readmitted under the care of Dr. E. C. Perry with "a rough rumbling presystolic and a soft blowing systolic murmur in the mitral area." A presystolic thrill was also present. On post-mortem examination the heart was found to be much enlarged, "weighing 18 ounces, the apex was formed mainly by the right ventricle, which was greatly hypertrophied, the muscle wall measuring three quarters of an inch in diameter; the tricuspid orifice measured five inches and the mitral three inches and three quarters. The aortic valves were healthy, but the pulmonary had a few small vegetations upon them." There was marked atheroma of the pulmonary artery extending into its small branches, the hypertrophy and dilatation of the right ventricle being apparently due to obstruction in that vessel.

In this instance we have to account for a rough rumbling presystolic murmur and a presystolic thrill by the condition of the right ventricle alone, the slight dilatation of the mitral orifice being the only abnormality in the left side of the heart. In many cases of mitral stenosis the responsibility of the circulation rests entirely on the right ventricle; in this case the same thing occurred, but the obstruction was situated further back, being in the pulmonary vessels and not at the mitral orifice; the result, however, was the same and the same murmur was heard, the excessive hypertrophy of the muscle adding to the intensity of the murmur which certainly could not have been produced by the auriculo-systolic blood-current.

Summarising the morbid conditions we find that the presystolic murmur has been proved to be present under the following circumstances 1. Obstruction of the mitral orifice by sclerosis and adhesion of the cusps or by invagination of an auricular thrombus. 2. Dilatation of the mitral orifice with normal cusps and chordæ. 3. The mitral orifice of normal size but roughened margins. 4. Insufficiency of the aortic valves, with (*a*) normal mitral orifice and curtains; (*b*) dilated mitral orifice but normal cusps and chordæ; and (*c*) mitral orifice dilated and cusp and chordæ thickened. We also find that it is equally present when the regurgitant current is directed towards the anterior mitral cusp and when it is directed toward the septum, when the regurgitation is free and when it is limited, and when there is no aortic or mitral regurgitation at all, the only morbid condition common to all being dilatation and hypertrophy of the heart. I therefore think that I am justified in saying that the presystolic murmur cannot entirely arise from the auriculo-systolic blood-current as the supporters of the Gairdner theory claim.

When writing on mitral stenosis[35] I have contended that partial asynchronism of the ventricles caused the muscle tones to be audible during the diastolic period. If the cases are carefully studied where the presystolic murmur has been present in spite of the absence of mitral stenosis it will be seen that the two conditions common to the whole of them are: (1) hypertrophy of the heart muscle and therefore increased muscle tones; and (2) loss of compensation, producing partial asynchronism and thereby causing the muscle tones to be heard during the diastolic period, the intensity of the presystolic murmur varying in proportion to the amount of hypertrophy present.

Harley street, W.

---

[32] Clifford Allbutt's System of Medicine, vol. v., p. 945.
[33] Medical Press and Circular, Oct. 10th, 1894, pp. 361-364.
[34] THE LANCET, March 9th, 1895, p. 602.
[35] Clinical Journal, July 12th, 1899, p 183; and Edinburgh Medical Journal, August, 1900.

IMPROVED WORKMEN'S DWELLINGS.—The fifty-seventh report of the Metropolitan Association for Improving the Dwellings of the Industrial Classes states that the rate of mortality in the dwellings of the association is considerably below that for the whole metropolis. The cash statement after payment of the year's expenditure shows a credit balance of £8805.

ENDOWMENT OF A BED AT SUNDERLAND INFIRMARY.—A donation of 1000 guineas was some time since received from Mr. R. A. Bartram, a local shipbuilder, and his wife, to endow in perpetuity a bed for the special treatment of women, and the general committee decided to name a small ward the "Bartram Ward" and to place in it a tablet to commemorate the gift, a formal unveiling of which recently took place. The tablet bears this inscription: "The Bartram Ward commemorates the gift of one thousand guineas, the gift of Mr. and Mrs. R. A. Bartram of Thornhill Park, Sunderland, who thus endow in perpetuity a bed for the special treatment of women.—25th October, 1900."

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Procemium.

LONDON HOSPITAL.

TWO CASES OF CÆSAREAN SECTION.

(Under the care of Dr. G. E. HERMAN.)

IN most operations a mere summation of the results obtained gives an erroneous idea as to the exact danger, for in such a case we calculate the mortality from all cases recorded without any attention being paid to the circumstances and conditions under which the operation was performed. In no operation is this more true than for Cæsarean section. In some of the cases the operation is performed only after a protracted labour and after repeated attempts to deliver with forceps and version. In other cases the Cæsarean section is performed before the onset of labour, with the patient under the most favourable conditions. In eight years, from 1886 to 1894, 22 cases were recorded in the London Hospital and of these nine women died and five children; this gives a maternal mortality of 40 per cent. Zweifel of Leipsic[1] had two deaths in 30 cases. That the operation in itself need not cause much risk to the mother is shown by the fact that it has been performed more than once in some patients; in one case Cæsarean section was performed four times.[2]

CASE 1. *Flat rickety pelvis; conjugate two and a half inches; first child delivered by cephalotripsy; second by Cæsarean section, followed by amputation of the body of the uterus.*—The patient's first child was delivered by perforation and cephalotripsy in the London Hospital in August, 1898. Her last menstruation ceased on July 28th, 1899. She had had slight bleeding for two days between two and three months previously, and one day's bleeding a fortnight previously. She was admitted into the London Hospital on May 27th, 1900. She then thought herself about nine months pregnant. The girth at the umbilicus was $35\frac{3}{4}$ inches. The distance from the pubes to the top of the uterus over the convexity was 16 inches. There was marked rickety curving of the femora and tibiæ. The pelvic measurements were as follows: anterior interspinous, 10 inches; intercristal, 11 inches; external conjugate, $6\frac{5}{8}$ inches; diagonal conjugate, $3\frac{1}{4}$ inches; and between the ischial tuberosities, $3\frac{3}{4}$ inches. After her last delivery the obstetrical conjugate was measured by Johnson's method and was found to be $2\frac{1}{2}$ inches.

The patient having been given the alternative of delivery of a dead child by perforation and cephalotripsy, or of a living child by Cæsarean section followed by sterilisation, preferred the latter Dr. Herman therefore performed Cæsarean section on May 29th. The placenta was implanted on the anterior uterine wall and there was therefore considerable hæmorrhage. (Attempts had been made beforehand to detect the placental site but without success.) After extraction of the child and placenta the broad ligaments were first tied and divided internal to the ovaries; then the vesico-uterine peritoneal fold was divided and the peritoneum was pushed down off the anterior surface of the uterus, and then the uterine arteries were tied. The body of the uterus was then cut away at about the level of the internal os by incisions which sloped downwards, so that the stump left was gutter-shaped. The two lips of the stump were then stitched together with catgut, the posterior lip being folded over the anterior. The abdominal wound was then closed. The duration of the operation was 33 minutes. The child, a female, weighed 7 pounds $2\frac{1}{2}$ ounces. The measurements of her head, five hours after birth, were vertico-mental, $5\frac{1}{8}$ inches; occipito-frontal, $4\frac{5}{8}$ inches; sub-occipito-frontal, $4\frac{1}{4}$ inches; bi-parietal, $3\frac{3}{4}$ inches; bi-temporal, $3\frac{1}{2}$ inches; and bi-mastoid, 3 inches. The patient recovered without bad symptoms and mother and child left the hospital well on June 23rd.

CASE 2 *Fibroid growing from the lower segment of the uterus, filling the pelvic cavity, obstructing delivery, and causing severe pain; Cæsarean section, followed by amputation of the body of the uterus; recovery*—The patient, aged 31 years, was admitted into the London Hospital on August 25th, 1900. She was married at the age of 19 years and by her first husband she had five children. Each labour was induced at about the sixth month on account of pain from which she suffered. She was not told anything about a tumour. The medical man who advised the premature termination of pregnancy was dead, and the patient knew not the names of the other medical men called in in consultation, hence it was impossible to get accurate information as to the reasons for inducing labour. She became a widow three and a half years before admission. For two years she had suffered from symptoms of ulcer of the stomach, vomiting, and occasional hæmatemesis; and for these she had been kept in bed for 20 weeks. She was married for the second time in February, 1900, and her last menstruation ceased on March 30th. Her complaints were of pain in the left lower abdomen, the lumbar region, and down the back of the left leg, and of pain in passing urine, which she had had for five months She had been losing flesh for a year On examination there was a swelling rising out of the pelvis and reaching nearly to the umbilicus. At the top of this swelling on the right side was a hard nodule of the size of an egg. The vaginal mucous membrane was of a bluish colour. The fœtal heart could not be heard. By the vagina the cervix uteri was high up. The left posterior quarter of the pelvis was occupied by a hard swelling of the size of an orange, almost immoveable and not separable from the cervix uteri. In view of the uncertainty of the diagnosis it was thought best to explore the tumour. This was done on Sept. 14th. The uterus had the appearance of pregnancy; the nodule on the top was a fibroid, the intrapelvic swelling was also a fibroid, so low down that the fingers could not be got underneath it, and it seemed to be between the folds of the broad ligament. The patient was anxious to have a living child. It was clear that she could be delivered only by Cæsarean section. It was therefore decided to let the pregnancy go on to near term and then to perform Cæsarean section.

The patient recovered from the exploratory incision without bad symptoms and left the hospital on Oct. 6th, but she returned to the hospital on the 31st on account of pain in the lower abdomen and back which she took to be pains of labour. She remained in bed till Nov. 2nd. Her pains were then better and there was no sign of labour, so she was allowed to go home. She returned on the 27th complaining again of pain which was so severe as to keep her awake at night. The fundus uteri was two and a half fingers' breadth below the ensiform cartilage. The greatest girth of the abdomen was $37\frac{3}{4}$ inches. The distance from the symphysis to the top of the uterus, over its convexity, was 15 inches. There was no dilatation of the cervix. The fœtal head was felt in the right iliac fossa. No indication of placental site was made out.

Cæsarean section was performed by Dr. Herman on Dec. 5th. The placenta was implanted on the anterior wall of the uterus, so that the amount of blood lost was more than usual. After extraction of the child and placenta the broad ligaments on each side were transfixed, tied, and divided internal to the ovaries. The uterine artery on the right side was then tied. The uterus was then pulled up to get at the left uterine artery, and it was found that the fibroid which was in the pelvic cavity was not between the folds of the broad ligament, but grew out from the lower part of the uterus just above the cervix. It was nowhere adherent and was easily lifted out of the pelvic cavity. The left uterine artery was then tied, after which the body of the uterus with its fibroids was amputated at the level of the os internum. The stump was treated by sewing the posterior flap over the anterior flap. Owing to the loss of blood from the divided placental site the patient was at this time pale and her pulse was small. As much boiled water as the peritoneal cavity would hold was poured into it and left there. Improvement in the pulse followed almost immediately and by the time the suture of the abdominal wound was complete the pulse was of good volume. The patient presented no bad symptoms, excepting some flatulent pain, until the ninth day, when the temperature rose to 102° F. It then fluctuated between 100° and 101° until the seventeenth day. Examination then revealed a swelling bulging in Douglas's pouch. The patient was anæsthetised and this swelling was cut into from the vagina [illegible]

---

[1] THE LANCET, May 19th, 1894, p. 1242.

[2] British and Foreign Medico Chirurgical Review, 1870, vol. ii., p. 270.

birth. It weighed less than five pounds. The tumour was an ordinary fibroid without any sign of degeneration.

Remarks by Dr. Herman.—In The Lancet of May 2nd, 1891 (p. 986), Dec. 16th (p 1508) and 23rd, 1893 (p. 1565), *and July 14th, 1894 (p 77),* I published all the cases of Cæsarean section that I had till then performed in the London Hospital. I now add to them two more performed since, which make the record complete up to the present time. These cases bring the number up to 13. Seven patients recovered and six died. In the six fatal cases the necessity for the operation was revealed by the failure of the natural powers to effect delivery, and the operation was in consequence not performed until the patient had been long in labour. All the cases recovered in which the diagnosis of the conditions affecting delivery had been made during pregnancy, and the operation was in consequence performed before the patient was exhausted by protracted labour. This ought always to be the case; for if the necessity for the operation is ascertained before term is reached it is the simplest of all abdominal operations, for the operator has to deal only with healthy tissues, and the details of the operation are the same in every case. For the notes of Case 1 I am indebted to Dr. A. Gordon Wilson, resident accoucheur, and Mr. W. F. Ellis, clinical clerk; and for those of Case 2 to Mr J. Sherren, resident accoucheur, and Mr. C. Bramhall and Mr. A. M. Simpson, clinical clerks.

BRADFORD ROYAL INFIRMARY.

A CASE OF CARCINOMA OF THE WALLS OF THE STOMACH; PARTIAL GASTRECTOMY; RECOVERY.

(Under the care of Mr. W. H. Horrocks.)

The statistics of partial gastrectomy, including pylorectomy, are on the whole fairly satisfactory. Mr. Mayo Robson in his lectures at the Royal College of Surgeons of England in 1900[1] has collected 572 cases, and of these 398 recovered; this is equal to a mortality of 30 per cent., but if suitable cases are chosen the death rate is much less. For instance, Maydl had only four deaths in his 25 cases, and Kocher had only five deaths in 57 cases. Statistics collected by Haberkant[2] show clearly the higher mortality which occurs when extensive adhesions are present, for under those circumstances the death-rate was 72 per cent., but when there were no adhesions only 27 per cent. of the cases died The improvement of the results in the future will depend chiefly on an earlier calling in of the aid of the surgeon in any case in which the possibility of the existence of malignant disease of the stomach is suspected. For the notes of the case we are indebted to Mr. James Phillips, senior house surgeon.

A man, aged 46 years, was admitted into the Bradford Royal Infirmary in March last complaining of pain after food of six or seven weeks' duration with occasional vomiting and pyrosis at night He had lost one and a half stones in weight in 11 months. He had never been ill in his life before. He was a strong, well-built, healthy-looking man. The tongue was indented and furred. The abdomen was flat In the epigastrium a hard lump was felt, apparently about two inches deep by one and a quarter inches wide, which moved up and down with respiration immediately under the abdominal wall and could be pushed laterally up under the left ribs On distending the stomach with air the tumour was found to be to the right of a resonant area not greater than the normal stomach resonance.

Cancer of the pylorus was diagnosed and on March 22nd an operation was undertaken for its removal. The stomach was pulled out through a five-inch incision and the growth was found to extend from the pylorus five inches along the walls of the stomach. The coronary arteries were ligatured on either side of the growth and the gastro-colic omentum was ligatured off below it. Clamps having been placed on either side of it, the stomach was divided vertically clear of the growth and the open end was closed with two layers of continuous sutures. The first layer passed through all the coats and the two ends were left long and were finally tied together so as to pucker the wound. The growth was cut away and the duodenal end was treated in the same way. Two or three glands were removed from the omentum close to the lesser curvature. An anterior gastro-enterostomy was next done by means of a Murphy's button. The wound was closed with through-and-through silkworm gut sutures. The whole operation took 70 minutes. A gauze drain was left in which was removed on the second day. The patient made an uneventful recovery. The button was passed on the twentieth day and he left the infirmary in apparently good health and with unimpaired appetite on April 20th.

The growth was a scirrhous carcinoma involving the whole circumference of the wall of the stomach for over five inches of its length and stopping just short of the pyloric ring which was normal. The mucous membrane was not ulcerated anywhere and there was no obvious musculature left.

Remarks by Mr. Phillips.—A noteworthy feature in this case was the very slight nature of the symptoms, the abdominal tumour alone indicating the serious nature of the case. The importance of making an abdominal examination in patients who complain of even slight dyspeptic symptoms is emphasised by two other cases of cancer of the stomach which have lately been in the Bradford Royal Infirmary where before the abdomen was examined and the tumour was found secondary deposits had formed and operation was useless. With regard to the operation, the closing in of the stomach and duodenum was found to be facilitated by leaving the ends of the through-and through continuous suture long and then tying them together, so puckering the line of suture and rendering fewer covering Lembert's sutures necessary.

Medical Societies.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Microscopical Demonstration —Exhibition of Patients and Specimens —Cœliotomy.—Perforated Gastric Ulcer.—The Supply of Pure Milk.

A meeting of the above society was held on May 21st, Mr. F. Farrow, the President, being in the chair.

Dr. F. W. Eurich gave a microscopical demonstration illustrating some Tumours of the Kidney.

Mr. J. B. Hall showed: (1) A Stomach on which Gastro-enterostomy had been recently performed; (2) Gall-stones removed from the Common Duct; (3) Sarcoma of the Sheath of the Rectus Abdominis; and (4) Rickets in a Chicken.

Dr. C. F. M. Althorp showed: (1) A case of Excision of the Tongue and Cervical Glands (operation 15 months previously); and (2) a case of Excision of the Breast for Scirrhus (operation two and a half years previously). Both patients were in good health.

Dr. H Angus showed a Spleen from a case of Hodgkin's Disease.

Mr. R. Mercer showed a photograph of a Foot showing great Hypertrophy of One Toe.

Dr. R. H. Crowley showed the following specimens: (1) Cystic Kidney (?) Congenital; (2) Calcareous Pericardium; (3) Thrombosis of the Right Pulmonary Artery and its Branches; and (4) Excessive Dilatation of the Auricles.

Dr. A. Bronner showed the patients in the following cases: (1) Recent cases of Mastoid Disease treated by Transplantation of the Skin; and (2) Extraction of Cataract in a woman, aged 84 years.

Dr. Eurich showed. (1) A Brain illustrating Contrecoup; (2) Intussuscepted Bowel; and (3) Dysenteric Ulcers of the Colon, with Perforation.

Dr. James Kerr showed a boy, aged five years, originally seen for eye symptoms, who about two years ago awoke with the mouth drawn to the left and with paralysis of the right half of the face. This had completely passed off as regards voluntary movements and the boy was now in robust health and could whistle and close the eyes, &c., in a natural manner. But for emotional movements complete paralysis of the right face remained, so that he laughed and cried on one side of the face, and when he was quarrelling with other children the right eye remained widely open and the face on that side was motionless. Such symptoms were commonly associated with lesion of the optic thalamus and they offered several problems as to double routes in the brain.

---

[1] The Lancet, March 24th, 1900, p. 838.

[2] Archiv für Klinische Chirurgie, 1896, vol. li., p. 484.

Dr. J. B. BERRY read notes on three cases of Cœliotomy. The first was a case of Gangrene of the Omentum. A married woman, aged 43 years, had suffered from abdominal pain and swelling for "some time." She became pregnant and was delivered of a child (her twelfth). After confinement the swelling increased and she was tapped twice, a quantity of foul-smelling fluid being evacuated. Fourteen days after delivery cœliotomy was performed when the subcutaneous fat was noticed to be in a sloughy condition. On opening the peritoneum a mass of gangrenous omentum presented and came away, the pedicle rupturing very readily. It had been lying in a cavity shut off from the rest of the abdominal viscera. This cavity was plugged with iodoform gauze and a boric poultice was applied to the wound. The sloughs in the body-wall gradually separated and the patient made a good recovery. The temperature during her stay in hospital was mostly subnormal and there was diarrhœa from the third to the sixth day. The second case was one of Perforated Gastric Ulcer. The patient was a girl, 17 years of age, who had been seized while at her work with abdominal pain, faintness, and vomiting. There was a history of anæmia and indigestion. The pulse-rate was 98, and the temperature was 100° F. The abdomen was slightly distended, the breathing was thoracic, and the liver dulness was abolished. Cœliotomy was performed 29 hours after the onset of the symptoms. On opening the peritoneum signs of peritonitis were present, but there was no notable extravasation of gastric contents. A small perforation, admitting a large probe, was found on the anterior wall near the lesser curvature which was covered by a patch of lymph. This was inverted and two rows of Lembert's silk sutures were applied. No flushing was employed and no drain was inserted. The patient made a good recovery except for some suppuration in the abdominal wall on the tenth day. In the third case, which was one of Ovarian Cystoma, the patient, a woman, aged 45 years, had complained for a considerable time of abdominal swelling and œdema of the legs. For four or five days she had suffered from fever, the temperature rising to 102° F. in the evening. On opening the peritoneum a large cyst of the ovary was found which contained 17½ pints of turbid brown fluid. The cyst was removed and the patient made a good recovery.

Mr. HALL read a paper on a series of cases of Perforated Gastric Ulcer. He classified gastric perforation into (1) acute or fulminating, and (2) subacute or insidious cases, according to the course of the symptoms. A third class of cases, commonly spoken of as perigastric abscess in which the peritonitis remained localised, should not, he said, be included in the statistics of the more acute cases. The relation of perigastric abscess to the unlocalised form was identical with that of localised appendicular abscess to perforated appendix with general peritonitis. Among the acute or fulminating cases he included all those cases of gastric perforation with the sudden onset of the typical symptoms of acute peritoneal infection. These cases at the present day were operated upon early with most encouraging success. Apart from early operation the condition and quantity of the escaped stomach contents had a considerable influence upon the prognosis. He quoted the figures of Mikulicz as showing the remarkable advance in the result of surgical treatment. Among the insidious or subacute cases Mr. Hall classified those cases in which the typical signs of peritoneal infection were not marked at the onset. He urged that in any case where the possibility of gastric ulcer was present the most careful examination for slight degrees of muscular rigidity and the presence of a tender spot over the stomach should be made. The close inspection of the abdomen was not practised so thoroughly as it should be. No case in which there was the slightest suspicion of perforation should be left unseen for longer than two hours. If at the end of that time it could not be said that perforation did not exist it was far safer to explore than to leave the case undecided. He believed that if this course were adopted the number of lives saved would greatly exceed the number of unnecessary operations. As regards treatment Mr. Hall strongly advocated systematic flushing of the peritoneum, arguing that it was impossible to say in any individual case when the peritoneum was clean and that after flushing any poison that remained was enormously diluted. He also advocated cleansing the peritoneum at the earliest possible moment, leaving the suturing to the last. To combat shock he had the greatest faith in large doses of strychnine given hypodermically. He mentioned a case in which he had given 40 minims of the solution of strychnia in all without producing any symptoms of poisoning.—Dr. W. H. HORROCKS, Dr. T. J. WOOD, and Mr. MERCER discussed the paper, and Mr. HALL replied.

Dr. CROWLEY read a paper on the Supply of Pure Milk He expressed it as his opinion that a great part of the excessive infant mortality was due to defective milk-supply A system working in St. Helen's and Liverpool was described in which the milk was humanised and sterilised, and supplied in bottles, each containing sufficient for one feed and a day's supply being delivered at once. The working of the Manchester Pure Milk Supply Company was also described. Here the milk was not sterilised, but the sources were under the full control of the company, as were all the manipulations, and inducements were offered to the dairymen to prevent any contamination of the milk. The cows were frequently tested with tuberculin. If there was any infectious disease among any of the farm servants the milk from that farm was not used, but the farmer was not put to any loss thereby. The dairies were frequently inspected and precautions of cleanliness were observed by those engaged in milking. The milk was carefully cooled as soon as it was drawn and it was then forwarded to the headquarters of the company without delay. Here it was examined and tested and was put into cooled vats and filtered. It was delivered in sealed bottles or in bulk twice daily. Dr. Crowley thought that a combination of these systems would meet the necessities of the case, and he advocated, if necessary, the municipal distribution of milk.

CAMBRIDGE MEDICAL SOCIETY.—A meeting of this society was held on May 10th.—Dr. L. Humphry related a case of Sudden Death from Meningeal Apoplexy, the patient being a married woman, aged 45 years, who died in the outpatient room at Addenbrooke's Hospital. Death took place in about four minutes, the respiration failing first; there were no convulsions. The necropsy showed a sub arachnoid hæmorrhage affecting chiefly the base and cerebellar space, and the blood was spread in a thin film over the cortex on both sides The cerebral vessels did not appear to be diseased and no miliary aneurysm was found. The left ventricle of the heart was slightly hypertrophied, but the kidney structure was healthy.—Dr. Griffiths described a case of Cylindrical Endothelioma of the Sigmoid Flexure of the Colon The patient was a woman, aged 49 years, who for five months had suffered from obstinate constipation with small stools which were sometimes mixed with blood. On admission to hospital the sigmoid flexure and the descending colon were distended with fæces and an irregular firm lump was to be felt in the pelvis just in front of the left sacro-iliac joint. On opening the abdominal cavity below the umbilicus the lump was found to be a limited endothelioma of the lower end of the sigmoid flexure. This was with some difficulty excised and during the three months which had since elapsed the patient had been comfortable and well.—Dr. Griffiths also described a case of Polypoid Adenoma of the Mucous Membrane of the Small Intestine with Intussusception. The patient, a woman, 17 years of age, was under the care of Dr. Humphry, and for 12 months had suffered from recurrent attacks of pain in the abdomen. During the latter part of the time the onset of pain was accompanied by the appearance of definite swelling in the abdomen which came and went with the pain In the intervals nothing definite could be detected. Latterly there was severe vomiting during the attacks and on more than one occasion blood was found in the motion. The diagnosis being difficult, laparotomy was performed, and the swelling was found to be an intussusception in the small bowel, due to a polypoid adenoma of the mucous membrane A small section of the gut was excised and recovery was uneventful.—Dr Griffiths also described a case of Small celled Sarcoma of the Ileum with Intussusception. The patient was a woman, 19 years of age, who for four months had suffered from pain in the body. This pain came on at times and was associated with much rumbling, but there was neither constipation nor anything abnormal in the fæces. In the right iliac fossa there was a swelling of the shape and nearly of the size of the kidney which could be freely moved about. On opening the abdomen it was found to be an intussusception near the ileo cæcal valve due to a firm polypus one and a quarter inches in diameter. This arose from the mucous membrane and was composed of small cells In addition there was a secondary lump in the mesentery near by, and the lumen of the gut was much narrowed. A portion of the gut and mesentery including the growths was removed, and the patient, who has made a good recovery up to the present time (four months in all), remains apparently free from recurrence —Dr. Lloyd Jones read notes on a case of Appendicitis—a second attack—occurring in a man, aged 23 years. Perforation took place about the eighth day of the illness. General peritonitis ensued, and after some days a localised collection of pus was ascertained to have formed under the diaphragm, on the left side, and the left pleura was found to contain serous fluid. Dr. Griffiths evacuated the pus after resection of a portion of a rib. More than a week later the left pleura was found to contain pus A portion of another rib was resected and the pleura drained The man made a good recovery.

MANCHESTER THERAPEUTICAL SOCIETY.—At a meeting of this society held on May 22nd, Dr. Dreschfeld, the President, being in the chair, Dr R T. Williamson read a paper on the Treatment of Diabetes Mellitus. The importance of varying the treatment (dietetic and medical) according to the form of the disease was pointed out For practical purposes three forms might be recognised: (1) the mildest, in which a rigid diet caused the sugar excretion to cease; (2) the more severe, in which the sugar excretion was not checked by a rigid diet; and (3) the most severe form in which the urine gave a dark brownish red colouration with perchloride of iron. The dietetic treatment suitable for the three forms was described and the importance of discontinuing a very rigid diet in the third form was referred to In the medical treatment of the milder forms of the disease Dr Williamson had obtained better results from salicylate preparations than from other drugs, and he showed charts demonstrating the value of salicylates and the value of aspirin in markedly reducing the sugar excretion quite apart from any restriction of diet. In the most severe forms of the disease with a marked perchloride of iron reaction he had obtained some temporary benefit from large doses of bicarbonate of soda (as recommended by Naunyn), and at the earliest stage of diabetic coma he occasionally had seen slight temporary improvement result from the use of very large quantities of the same drug.—Dr. J. J. Cox had also found salicylate of soda very useful in mild cases of diabetes —The President referred to the importance of looking for a primary disease of which the glycosuria might be a complication. He had thus met with it in two cases of biliary colic and in one of malaria and had found the sugar to disappear with the relief of the primary disease. He also spoke of a neurogenic form, one due to worry and anxiety of business and cured by rest In the severer forms of the disease abstention from milk and bread was advisable so long as the weight of the patient kept up. He had found good to result from the use of salol and salicylate of bismuth, and also occasionally from antipyrin in doses of from 20 to 25 grains twice daily.

WINDSOR AND DISTRICT MEDICAL SOCIETY.—The annual dinner of this society was held at the White Hart Hotel, Windsor, on May 29th Mr. W. B Holderness, the President, being in the chair.—Amongst the guests the Mayor of Windsor, who had kindly granted the use of the Guildhall for the society's meetings, was present. There was a large attendance of members —After the usual loyal toasts Dr Fletcher Beach, in proposing the toast of "The Society,' briefly reviewed the work of the past session and pointed to the increase in the number of members, the good attendance at the monthly meetings, and the satisfactory state of the finances as evidence that the society was supplying a want long felt in the neighbourhood.—Mr. Arnold Thomson having replied, Mr. Noble Smith proposed "The Guests," coupling the toast with the name of Dr. G. Leslie Eastes who, by reading a most interesting paper and by the exhibition of drawings, specimens, &c, had so largely contributed to the successful programme of the session —The toasts of "The Officers of the Society" and "The President" having been received with acclamation the proceedings terminated with the National Anthem.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—The following office-bearers have been elected for the session 1901–2:—Honorary President: Dr. W. J. Smyly, Dublin. President: Dr. Robert Jardine Vice-Presidents: Dr. Samuel Sloan and Dr. J M. Munro Kerr. Treasurer: Dr. John Lindsay. Secretary: Dr. A. W. Russell. Reporting Secretary: Dr. G. Balfour Marshall. Pathologist: Dr. John H. Teacher Members of Council: Dr. J. Coulson Howie, Dr. P. McBryde, Dr. J. C. Herbertson, Dr. D. Macgilvray, Dr. Carstairs C. Douglas, and Dr. Jane B. Henderson.

Reviews and Notices of Books.

Mikrophotographischer Atlas zum Studium der Pathologischen Mycologie des Menschen. (Micro-photographic Atlas for the Study of Human Pathological Mycology.) Von Dr. EUGEN FRAENKEL, Prosektor des Neuen Allgemeinen Krankenhauses in Hamburg. Parts IV. (1900, pp. 27) and V. (1901) Hamburg· Lucas Grafe und Sillem. Price, Part IV. 6 marks, and Part V. 5 marks.

PART IV. of Fraenkel's Pathological Atlas is devoted to the consideration of the Bacillus of Influenza and the Bacillus of Diphtheria It contains 20 photographs on 10 plates. The influenza bacillus was first identified and grown as a pure culture in the winter 1891–92 by R. Pfeiffer in the Berlin Institute for Infectious Diseases, and both his researches and those of Fraenkel have been made on those labouring under the catarrhal form of influenza. They have had no experience of the gastric and nervous forms. The influenza bacillus as grown upon hæmoglobin solutions is extremely small, not exceeding 1 2 μ in length, with rounded extremity, and about one-third of this in breadth. Two rods are frequently arranged end to-end and in old cultures they exhibit a tendency to form threads. They colour with warm dilute Ziehl's solution or with polychromic methyl blue The bacilli are found in cases of influenza upon the mucous membrane from the nose to the lungs. They appear to be capable of exciting serious affections in the central parts of the nervous system and to be the cause of local abscesses and inflammatory processes in the lungs. Separation of the epithelium occurs in streaks in the bronchia and leucocytes escape into the lumen of these tubes. The capillary vessels are congested and the peribronchial tissue charged with leucocytes. Pfeiffer has also shown that in cases of influenza-pneumonia suppurative inflammation of the pleura may occur which is attributable to the influenza bacillus Fraenkel has satisfied himself that the influenza bacillus is the cause of suppurative meningitis. He gives several photographs of the appearances presented. These are somewhat better than photographs of such minute objects usually are and convey a fair impression of the appearances presented even to those who are not experts. In regard to the true specific bacillus of diphtheria, generally named the Klebs-Löffler bacillus, it presents itself as a somewhat plump septated rod which sometimes at one end, sometimes at both, is swollen and clublike. They are very abundant in the false membranes, but are by no means exclusively limited to them, being distributed throughout the tissue of the neighbouring submaxillary lymphatic glands in the tonsils, uvula, trachea, and bronchi, and even in more remotely situated organs such as the kidneys and spleen, though they do not appear to produce in these organs any specific lesions. Death of the superficial epithelial layers, which is the first effect of the settlement of the diphtheria bacillus, is always preparatory to the formation of the false membranes. The bacilli may then penetrate the adjoining mucous membrane. The appearances presented by these bacilli are also shown in a series of photographs. Other parts of the same work deal with Tuberculosis, Lepra, Plague, Typhus, and Cholera.

Part V. completes the first volume of the Atlas, and is occupied with Bacillus Typhi Abdominalis and Vibrio Choleræ Asiaticæ. It is illustrated by eight plates. The parts previously published were devoted to Tuberculosis, Lepra, Plague, Influenza and Diphtheria, Typhus and Cholera. The photographs are well executed—perhaps as well executed with the means and instruments at present at the disposal of the pathologist as is possible, though the definition still falls far short of perfection. In a few pages of letterpress the methods of preparation adopted are described, and each plate is accompanied by an explanation of the appearances presented. The plates are actual photographs and not mere reproductions.

Les Rayons de Rontgen et le Diagnostic des Affections Thoraciques non Tuberculeuses. (*Roentgen Rays and the Diagnosis of Non-tuberculous Thoracic Affections.*) By Dr. A. BÉCLÈRE. Paris: J. B. Baillière et Fils. 1901. Pp 96. Price 1 franc 50 cents.

FOR this small volume, which forms one of the well-known series of "Les Actualités Médicales," we have little but praise. The author has confined himself strictly to the diagnosis of thoracic disease other than tubercle, as the diagnosis of the latter by the x rays has been treated by him in a separate volume. In the introductory chapter Dr. Béclère discusses the various methods employed in making an examination of the chest with the rays and divides them into radioscopy, radiography, simple and stereoscopic, and finally kinematoradiography, to which method the name of Dr. Guilleminot will always be attached. The author then proceeds to give a description of his stand with iris diaphragm for making chest examinations. The shadows seen in the skiagram of a normal chest are well described, the illustration of which (Fig. 1) is excellent. The shadows of the anterior and posterior mediastina are next considered with the lateral oblique method of examination. The shadows cast by the normal and diseased heart are fully discussed, and diagrammatic figures of the shadows caused by distension of the pericardium with fluid are given, which doubtless will be useful in the investigation of cases of pericarditis with effusion.

The next chapter is devoted to the pathological shadows of the aorta and œsophagus, the former of course receiving the larger share of attention. Fig. 5 is a beautiful illustration of an aneurysm of the transverse arch of the aorta. The author maintains, and we think rightly, that hitherto too much stress has been laid on pressure signs in the diagnosis of aortic aneurysm. Radiography demonstrates conclusively that pressure-signs may be well marked in a small aneurysm, while, on the other hand, the radiographic shadow may show the aneurysm to be a large one with hardly any pressure-signs at all. We have seen this in two or three instances. According to Dr. Béclère pressure-signs so-called depend more on inflammatory irritation of the surrounding parts than on the size of the aneurysmal sac. The examination of the œsophagus by the rays with previously introduced metallic bougies is touched upon. The next subject considered in this chapter is that of enlarged bronchial glands and an illustration (Fig. 6) is given of this condition. There certainly is some broadening of the shadow of the base of the heart, but we should hardly have thought it sufficient to justify a diagnosis of enlarged bronchial glands. The shadow appeared to us to be too sharply defined for such a condition. Dr. Béclère takes next the various displacements of the mediastina, anterior and posterior, temporary and permanent, and gives a very good illustration (Fig. 7) of the displacement of the mediastinum in a case of fibroid disease of the right lung, showing the heart completely dragged over to the right side.

The next chapter contains an excellent description of the application of the x rays in diseases of the lungs other than tubercle. The author points out that the pulmonary image is quite clear in a healthy chest from apex to base, with the exception of some ill-defined shadowy lines seen to the right and left to the lower part of the median cardiac shadow. He considers that these shadows are caused by the larger divisions of the bronchi. They are, we think, too low in position for the bronchi and have been shown by other observers on radiographic combined with post-mortem evidence, to be caused by the meeting of the pericardium with the pleuræ. The chapter is brought to a close with a very good description of the use of the rays in the diagnosis of pulmonary emphysema, fibrosis of the lungs, pneumonia, and gangrene.

In Chapter V. Dr. Béclère discusses the diagnosis of diseases of the pleura, and we agree with him that a dry pleuritis shows nothing definite either with the screen or plate. It is far different, however, as the author shows, in pleurisy with effusion, be that effusion serum or pus. In Fig. 10 a beautiful illustration is given of a left empyema in a child. It shows the dense shadow obliterating the ribs which is so characteristic of pus in the pleural cavity. It shows also the displacement of the heart to the right. We are sorry that the author does not give an illustration of a serous effusion for comparison and differential diagnosis. It is also a pity that he does not give an illustration of pneumothorax, as throughout all the range of chest radiography there is no more characteristic skiagram than that of this condition, the clearness of the diseased side with collapsed lung shadow and downward displacement of diaphragm standing out in striking contrast with the healthy side, appearances which should certainly be illustrated in a work on chest radiography. In the final chapter the author considers the diaphragmatic shadow and its movements with respiration and then he proceeds to the modifications observed in thoracic disease. A fairly full bibliographical index completes the work. The volume is printed on good paper which doubtless in a great measure accounts for the excellence of the skiagrams. We can cordially recommend this small book to all physicians interested in this new method of physical diagnosis in diseases of the chest.

The Natives of South Africa: their Economic and Social Condition. Edited by the South African Races Committee. London: John Murray. 1901. Pp 374 Price 12*s.* net.

READERS of that delightful book, "Sketches in Persia," by Sir John Malcolm, will remember the story of a master of a vessel whose failure to use his eyes and dislike of composition led him to comply with an Admiralty Order to the effect that officers of men-of-war when visiting a little-known port should describe the manners and customs of the inhabitants by saying of the inhabitants of Muscat: "As to manners, they have none; and their customs are very beastly." This we fear is too often the attitude adopted even in the present day and any endeavour to increase our knowledge of the manners and customs of the natives of foreign countries ought to be appreciated by every member of an empire which has shown itself to be the greatest colonising power in the history of the world. Information about the natives of South Africa should prove especially useful at the present time and we welcome the issue of the book under notice which is edited by the South African Native Races Committee, a committee which was formed at the end of the year 1899 with the object of collecting accurate information with regard to the social and economic condition of the native populations of South Africa.

The first part of the book deals with the population of the native races and this is followed by an account of the laws and customs and a sketch of native life Under the heading of Annexation and Administration the control of native territory is dealt with and the labour question is fully treated The law of master and servant, savings-banks, labour agencies, education, taxation, the franchise, and the sale and supply of intoxicating liquor are some of the other matters which receive attention From the book it is seen that the native and coloured population are very unequally distributed over the country and the committee state that while in some districts the limits of accommodation have probably been reached, in others, and especially in Rhodesia, the resources of the country have hardly yet been tested They also think that the danger of over population in South Africa as a whole may have been exaggerated, but the increase of the Bantu races is a fact beyond dispute As time goes on it is probable that native races will more and more predominate The chief occupation of the natives is agriculture, and many of those who seek temporary employment at the mines and elsewhere do so with the ultimate object of returning to the land and taking unto themselves wives Among other conclusions come to by the committee is the fact that the organisation of the tribe is breaking up and that the authority of chiefs is waning, though they still hold great power in many districts With regard to the treatment of natives we hope that the time is coming when such a passage as that which we quote below will not be true, but we feel that there are many who still pride themselves upon their contempt for the Kafir or "nigger," as he is more frequently called "While there is little systematic oppression of the natives there is a great deal of what may be called casual cruelty. Farmers, employers, and managers, who 'kick about' and cuff Kafir servants, or who deprive them of their wages, in whole or in part, by tricks or deceit, are apt to go unpunished Prosecutions for such offences are rare Probably, too, the redress for failure to pay the wages of blacks is not so prompt and efficient as is desirable" The book is worthy of serious study and its value is enhanced by maps and tables and a good index

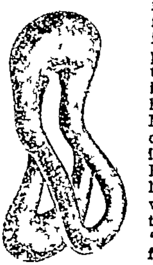
JOURNALS AND MAGAZINES

THE *Monthly Review* for June contains a leading article entitled "The Pyramid of Studies," which is well worth the consideration of all who are engaged in education "Our curriculum," says the writer in his closing words, "is good enough, our manipulation of it makes it futile and barren." General education is being considered, but every word in the article has application to the education of the medical man For this, we all know, ought to be as general as possible up to a certain point, and when differentiated it ought still to bear the stamp upon it of its broad origin Our examiners might well bear this in mind, for they must know it as well as the rest of us, and yet they are largely responsible for the fact that the hero of a hundred successful ordeals is often an ignorant man. "In the teaching of physical science," says the writer in the *Monthly Review*, "we ought not to be bullied by specialists into pretending to believe that those are the best pupils who 'know' most specific sciences or can perform the greatest number of prescribed 'experiments' without being able to make a single step for themselves and without a glimmering of the general logical significance of what they are doing" We speak after perusal of many examination papers set to all classes of medical students, and in our opinion the tests to which the candidates are submitted are too often of just this conventional and narrowing character which in theory we all reprobate In the medical curriculum this is the more wrong because the subjects lend themselves in a way that the humanities do not, to subdivision Many things have to be known exactly and promptly, have, in fact, to form for ever a part of the working equipment of the medical man, therefore it is right that a premium should be put upon the accurate storing and rapid reproduction of facts But the significance of these facts, the inter connexion of them with each other, the relation that one ancillary science bears to another,—these are just as important if medical education is to be anything but a means to the narrow and comparatively insignificant end of a qualification We shall have to change our national methods of education and examination considerably before any value is attached to breadth of knowledge, but the examiners who devise the tests for, and therefore dictate the system in, medical education would do well to see if they cannot make an unconventional start

New Inventions.

A SELF RETAINING PESSARY

NOTWITHSTANDING the modern improvements in the treatment of retroversion of the uterus it still falls to the lot of the practitioner to have to treat such cases in many instances by the prolonged use of the pessary after due reposition of that organ Having met with such a case in which various forms of pessary had been tried only to find that they failed to keep the organ in position or came down as soon as the patient began to walk about, I was led to devise the instrument of which an illustration appears herewith and which has been satisfactorily made for me by Messrs Arnold and Sons under the name of the Special Double pad Pessary It is simply an ordinary glycerine-pad Hodge pessary with the addition of a lower pad which on insertion into the vagina diverges from the lower bar of the pessary so as to lie over the "perineal body" I have found this form extremely useful in large roomy vaginæ which have failed to retain the ordinary appliance It is easily inserted by compressing the lower pad against the bar and can be removed with equal ease by a similar manœuvre carried out within the vagina None of the patients who have worn it have experienced the least discomfort from the presence of the additional pad



Great Malvern HENRY W JACOB, M D Dub.

THE OPEN-AIR SANATORIUM CHART.

THIS is a combined temperature and weight chart which I think will be found valuable in open air sanatoria One of its features is the utilisation of the fifths of a degree in the temperature scale to serve as "lbs" (units) in the weight scale By the variations in their weight being kept constantly in view the patients in these institutions may be encouraged to persevere in methods of hyper alimentation At the foot of the chart spaces are ruled for daily records of the state of the sputum and the urine, and for making notes of cough, night sweats, hæmoptysis, and action of the bowels The chart has been designed by me and is published by Messrs Reynolds and Branson of Leeds

J M BARBOUR, M B, C M Glasg

Swiss Villa Sanatorium, Swanage.

PREVENTION OF CRUELTY TO CHILDREN —The annual report of the Cornwall branches of the National Society for the Prevention of Cruelty to Children has just been issued and shows that 104 fresh complaints affecting the welfare of 233 children were investigated during 1900 The financial statement was satisfactory The report refers to the good effect that is being produced by medical men in certain localities not readily granting death certificates for infants and young children

THE LANCET.

LONDON: SATURDAY, JUNE 8, 1901.

Metropolitan Hospital Sunday Fund.

SUNDAY, June 16th, is the day selected this year for the simultaneous appeal from London pulpits on behalf of the medical charities of the metropolis. For eight-and-twenty years this annual appeal has gone forth, and the largest and wealthiest community in the world has been invited to spare a few thoughts for the needs of the sick poor and to bestow some contribution in money towards the support of those institutions whose glory it is that they are "maintained by voluntary contributions." The Metropolitan Hospital Sunday Fund has during its existence done incalculable good to the great charities for the assistance of which it was founded, and particularly in one direction to which reference cannot too often be made. In bestowal of the sums entrusted to them for distribution the members of the Committee have always been guided by the strictest impartiality, and by performing their philanthropic duty with justice and discretion have compelled institutions whose administrative manners were at fault to conform to proper business methods. The habits of order thus imported into the management of the resources of all medical charities aiming to be benefited by the Metropolitan Hospital Fund have resulted in a great saving of money for the good of the sick poor. The Prince of Wales's Hospital Fund for London, founded by the KING to commemorate his illustrious mother's diamond jubilee, paid the older institution the compliment of adopting the same attitude towards the hospitals of the metropolis and their allied institutions, and as a consequence the man who gives his money to either Fund feels that he is contributing to charities concerning whose administration he has an excellent guarantee.

The share taken by THE LANCET in the foundation of the Metropolitan Hospital Sunday Fund, and in particular the devoted and practical sympathy which, while he lived, our then Editor, the late Dr. JAMES WAKLEY, evinced in its behalf, would sufficiently explain the deep interest in the Fund which year by year we take; but apart from these personal grounds we endeavour each year to stimulate the public of the metropolis to a sense of gratitude towards their hospitals because we are convinced that in the whole world no nobler work is done than within their walls. Their splendid achievements are ill-paid; their shortcomings are made the subject of strictures from would-be leaders of public thought who seem never to remember the mass of good they might say of the hospitals and never to forget an opportunity of saying ill; and their officials are left time after time to bear as best they can the burden of financial insolvency. But the work goes on, and we plead to the public that it may continue to go on and, favoured by practical support, may succour the sick poor with increasing effectiveness. The conscience of London has not yet been thoroughly aroused upon the question of hospital relief. The great city grows greater, the wealthy city grows wealthier, and the claims on medical charity grow more urgent. How are these claims being met? The answer must be that they are met in a completely unsatisfactory manner. All the large hospitals in the metropolis, save perhaps two, must beg, and beg hard, for their bread; the efficiency of several is crippled by their being compelled to curtail their ministrations. There are hardly any, large or small, that are not living from hand to mouth in a condition of painful embarrassment. That is how the claims of medical charities are being met in London. Yet it is something to belong to the metropolis of the world, and it might be thought that the Londoner (from Highbury to Camberwell, from Chiswick to Bow) would be glad of any opportunity to prove a sense of pride in his citizenship. Once, at least, in every year he has afforded him an admirable opportunity of showing that he is worthy of being on the roll of this vast community; for once a year he can join with his fellow-citizens in an effort to remove the reproach from among them that the harbours of refuge for their sick poor are starving from lack of support Surely, if London desires to prove to the world that immense as she is she is not so shapeless and unwieldy as to be irresponsive to a common movement, Hospital Sunday is the day when she should let a simultaneous impulse stir her. It is fitting that the cause of the hospitals should be interwoven with religion, for the sum and substance of all religion is to help the poor and needy—to love one's neighbour as oneself. But whether a man profess his religion openly under one of its many forms, or whether he prefer to follow the dictates of his own conscience, to one and all the lesson of Hospital Sunday must be the same. It is the lesson of self sacrifice which is as ancient as humanity itself and is its crowning glory.

With such a theme we might be tempted to pass beyond our proper limits and to trespass upon the territory of those whose office it is to kindle consciences. This we do not desire to do, feeling sure that more powerful advocacy than any that could fall from our pen will be brought to aid the cause of the Fund in all the pulpits of the metropolis. But in addressing the public directly rather than our usual circle of professional readers, we do not think we have diverged in any degree from the object of a medical journal. In the supplement which it has been our custom for many years to issue on this day we address a wider audience than is our wont and do our best to arouse our fellow-citizens to a sense of the claims that their less prosperous fellow-men have on their thought and sympathy. The medical profession is daily—nay, hourly—engaged in the devoted service of man. Those only who are of it can speak of the amount of its devotion to this cause, and of the blessing that follows its labours in every by-way of misery in this huge, swarming, wicked city. As medical journalists, then, we feel that we have a right to demand that a share of the burden should be borne by the public, and no better opportunity of practical help could possibly be afforded than the collection for the Metropolitan Hospital Sunday Fund.

The Civil Surgeons at the War.

ON Wednesday last, as will be seen on reference to another column of THE LANCET, a representative body of the civil surgeons who have been employed with the forces in South Africa, and who have returned home, dined together at the Hotel Cecil under the presidency of Sir WILLIAM MAC CORMAC. The occasion was a particularly interesting one, inasmuch as the aid of civilian medical men in time of war has never before, we believe, been sought by the War Office. Civilian medical men have been able to find employment in connexion with ambulance work on previous occasions, and have improved those occasions to the great benefit of the suffering sick, but the services thus rendered to the army have been those of individual volunteers. In the South African war the War Office, embarrassed by the unexpected strength of the foe, unprepared in many directions, and in particular unprovided with a medical staff that was anything approaching the proper numerical strength, appealed to the civilian medical practitioners to come to the help of the country. How that appeal was answered we all know. From desire to be useful, from thirst of experience, from lust of adventure, and, with each and all of these, from love of country, applications poured in for medical appointments in connexion either with the Royal Army Medical Corps or with one of the numerous private hospitals. A system of rigorous selection, in the opinion of the rejected candidates not always discreetly applied, had to be put in force, and there is no doubt that had the country required three times the medical assistance that was asked for it would have been forthcoming.

How well those who were chosen comported themselves has been admitted on all hands. Amid the bitter disappointments and heart-wrenching suspenses of the first few months of our military operations in Natal and Cape Colony there were always two bright spots—the splendid bravery of our troops and the excellent manner in which the medical service of the war was carried out. Never were greater courage and more self-sacrificing devotion to duty under trying circumstances in the battle field displayed than by the medical men, both civil and military, who accompanied our South African army; in the earlier days of the campaign it can also be truthfully said that never was there a finer exhibition of administrative resource and professional skill than in the care of the sick and wounded in the hospitals at the theatre of war. In those terrible days, when all our hearts were wrung with the bloody repulses of our troops in their attempts to relieve the beleaguered cities, the nation had the satisfaction of knowing that all which technical skill and personal exposure to danger could do was being done to afford prompt aid to the soldier on the battle-field. In rescuing the wounded man from the enemy's fire and in relegating him to a place of safety where his wounds could be dressed and his sufferings alleviated, everything that professional foresight could suggest or skilful and humane treatment could provide was forthcoming for the man who was suffering for his country. In the earlier days of the South African war this was the satisfactory position of the service rendered by the medical men, civil and military, to the sick and wounded of our army. We may be sure that the treatment that the wounded received will never be forgotten by them; but after events, when the war was going well, so over-shadowed the successful medical administration that marked the earlier and more unlucky phases of our contest with the Boers, that many people can be found to believe and to state that the whole of our military medical administration in South Africa from beginning to end was a chaotic and criminal muddle. This is an unfair view and one that is not held by thoughtful people. The report of the Royal Commission on the South African Hospitals has shown where the fallacy lies. The Commissioners, speaking of the campaign as a whole, stated that the medical arrangements could not be said to have broken down, in spite of the fierce indictments against them. They found that there was no general or widespread neglect of the sick and wounded and that the conduct and capacity of the medical officers deserved great praise.

This praise the civil medical officers share with the Royal Army Medical Corps. Each body suffered in public opinion partly because they were undermanned and partly because the conditions of warfare were such that medical care could not prevent terrible sickness. But they were not responsible for the undermanning or for the fact that at one time in the campaign a vast section of our army out-marched its supplies. It cannot be laid to their door that Johannesburg is a long way from Cape Town. These facts have now become apparent to all thoughtful members of the public who appreciate the good work that was done by the medical men during the campaign. The Government may not understand where those whose opinion is worth having consider the blame to rest, but everyone else knows. And we can assure the civil surgeons who accompanied our South African field force that their professional brethren are proud of them.

The General Medical Council.

THE seventy-first session of the General Council of Medical Education and Registration was opened on Tuesday, June 4th, in the Hall of the Council, when a commendable desire to get to work was manifested by the disciplinary body of the medical profession. So marked was the rapidity with which the Council disposed of the subjects which came up for the first day's discussion that the PRESIDENT, a sound judge in such matters, was moved to say at the end of the sitting that the Council had got through more business than he had ever previously seen disposed of in so short a time as an hour and three-quarters. We trust that the Council will keep untarnished this fair fame, for the Council board is not the place for unnecessary declamation, and certainly not the place for recrimination, while the members are supposed to hold their places for the good of the profession as a whole, and not that they may "keep up the end" of their particular corporations in any dispute.

Before now we have seen much time spent in the saying of things that would have been better left unsaid. Idle debate has cost the Council much money and will do so again unless every member resolves only to say what will be of practical assistance to his colleagues. But over and above economy there is a very distinct reason why at this session of the Council the members should show themselves at one with regard to great questions and able to differ over smaller ones with cordiality. It seems to us possible that the General Medical Council may find itself compelled to come into collision with the Privy Council, and we need hardly say that in that case it is essential that the members should themselves be solid in the course which they propose to take. An Order of His Majesty in Council has been received by the General Medical Council, the gist of which is that "the kingdom of Italy affords to the registered medical practitioners of the United Kingdom such privileges of practising in Italy as to His Majesty seem just," and that Italy shall accordingly be deemed a country to which the second part of the Medical Act of 1886 applies. Under this Order Italian medical practitioners can, on complying with certain conditions, be placed upon the Medical Register of this country and can practise among us without restriction or limit, and the Order appears to have been made under the idea that English medical men have been offered a similar position in Italy under a new Act. But no such Act exists. It would seem, therefore, that the Privy Council have made, or at any rate propose to make, a bad bargain for the medical profession of this country. The Order, when carried out, may relieve certain British medical men in Italy from anxiety—and we shall be glad if this turns out so; but it may also place upon our Medical Register foreign members of our profession who will find it difficult to appreciate the professional attitude and standard of this country; while the General Medical Council will be compelled to undertake a dangerous responsibility in enrolling them.

The whole question of international reciprocity in medical practice bristles with difficulties. That true medicine is one science wherever practised is a noble fact; and that an honest man is inspired with honest sentiments whatever his race is another; but in a work-a-day world we should have more to go upon than such postulates if we are to devise practical measures of medical reciprocity between foreign countries. The General Medical Council can advise the Privy Council and its opinion ought to be respected. Here is where the General Medical Council must be strong, united, and business-like. The Privy Council is avowedly careless of medical matters. The Vice-President has said in the House of Commons that neither the President nor he has leisure to read the reports of the General Medical Council. The Order in Council has now been made—prematurely we think, but still with the knowledge of the General Medical Council—admitting Italian medical men to our Medical Register. With the General Medical Council is left the discretion to decide how far particular individuals possess a sufficient guarantee of suitability for admission to the roll. It must take care that this discretion is not interfered with or over-ridden by the Privy Council who should also be urged to obtain for British medical men real reciprocity in Italy. A firm stand on the part of the General Medical Council will be much appreciated.

Annotations.

"Ne quid nimis."

ARSENIC IN BEER.

THE third report of the Expert Committee appointed by the Manchester Brewers' Central Association has been issued. It will be remembered that in their first report, dated Dec. 1st, 1900, this committee pointed out that the materials then in use in brewing in Manchester were free from arsenic with the exception of certain sugars. They recommended, therefore, that all beer brewed with these sugars should be recalled and if found to be arsenicated should be destroyed. These measures were effectively carried out, and owing to a commendably prompt action on the part of the brewers the beer brewed in Manchester subsequently was soon proved to be free from reproach. In the second report of the committee, which was issued on Dec. 15th, 1900, the committee actually established that the arsenic found in deleterious quantities in the beer was solely due to the contamination by arsenic of certain manufactured sugars, the arsenic being introduced by the use of impure sulphuric acid. The committee then recommended that a systematic and adequate testing of beer should be at once set on foot in order that the public might be protected from all further mischief. This was to a large extent done, and with good effect. The question of the occurrence of arsenic in other brewing materials had been brought to the notice of the committee and in their second report they promised to examine more fully into this aspect of the matter. The third report just issued is practically the fulfilment of this promise. We congratulate the members of the committee on the efficient manner in which they have conducted their task, so far as it relates to the contamination of beer with arsenic and to the safeguarding of the beer-drinking public. So far, indeed, as the brewing interest is concerned the committee have done all that is necessary. We know how the beer became poisonous and we know how such contamination can be prevented, and we congratulate the committee on the able manner in which they have grappled with the immediate problem placed before them. Yet necessarily they have left many points still in obscurity which are of the utmost importance in public health. Since the beer-poisoning epidemic occurred we have been confronted with the possibility of countless channels through which arsenic may gain access to food or drink. We are face to face also with a point of extreme pathological moment, that in spite of the comparatively small quantities of arsenic found in beers yet these small quantities produced a disturbance out of all proportion to the amount of the mineral irritant present. What, then, is the exact nature of the arsenical compound present in beer?—is it an organic compound? And again, what is the effect, if any, of the process of fermentation on arsenic?—does it possibly elaborate a hitherto unknown compound of arsenic more toxic than arsenic itself? We learn absolutely nothing on these points from the report. Again, the validity of various tests for arsenic must also be made the subject of more prolonged inquiry than this committee were apparently able to devote to it. They pin their faith to the Reinsch test as a qualitative test, while for approximate determinations they recommend the Marsh test, depending upon the production of metallic mirrors of varying degrees of density. As a standard of comparison they recommend a solution of arsenious oxide in water which may or may not represent the same thing as arsenic in beer. They do not attempt to lay down the limits of delicacy of the Reinsch or Marsh test and there is much contention amongst chemists on these points The committee merely remark that in all cases when the *presence* of arsenic is ascertained by this test it is then desirable to estimate the amount by means of the Marsh test which "although not giving an accurate quantitative determination will when properly applied give an approximate estimation of the amount of arsenic present." It is certain that in skilled hands the various tests for arsenic are of extreme delicacy, and since it has been shown that varying infinitesimal amounts of arsenic occur in so many substances it becomes important to have some limitation set upon the amount below which arsenic may be considered to be no longer a poisonous factor. But these are all scientific points inviting considerable scientific research and study which the committee evidently regarded as outside the scope of the inquiry which they were instructed to undertake for the Manchester Brewers' Central Association. One important outcome of the inquiry, however, has been the extremely interesting discovery that if arsenic be present in worts yeast will take up a very considerable portion of it, so that if on examination of the yeast it proves to be free from arsenic the wort may be passed as uncontaminated The committee have examined a great number of brewing materials—something like 663 samples in all. In regard to the source of the contamination of barley before it had been subjected to any manufacturing process they conclude that barley is liable to take up very minute quantities of arsenic when grown upon land manured with arsenicated fertilisers. While this is conceivable we do not find in the report much evidence in favour of this view It appears that a sample of urine obtained from a ewe which had died with many others after feeding off roots grown on land manured with superphosphates was found to contain a small amount of arsenic, "but the quantity operated upon was of necessity very small and no quantitative estimation was possible." Arsenic might have been found in greater quantity in the wool, in which case its origin would most probably have been an arsenical dip.. We ventured to express regret in these columns that the Royal Commission on Arsenical Poisoning could not see their way to deal with the beer question first in order that instant steps might be taken for the protection of the public What a Royal Commission could hardly do in the time at their disposal the Manchester Brewers' Central Association, aided by their committee of experts, have succeeded in doing. They warned the public, they traced the mischief, they destroyed the evil stuff, and they have now recommended to brewers the steps to take to ensure in future the brewing of a beer free from arsenic or at least so free that the minutest analysis will fail to detect it For this they deserve the best thanks of the community. But the Royal Commission on Arsenical Poisoning have an enormous field left open for inquiry and it is a body so excellently composed that we may safely leave in the hands of the members for elucidation the great number of vitally important questions which have arisen out of the beer poisoning epidemic In the public interest this elucidation must be complete and conclusive.

HOMŒOPATHY AND THYROID HYPERTROPHY.

MR. WALTER EDMUNDS in his Erasmus Wilson Lectures[1] draws attention to many important points in the pathology and diseases of the thyroid gland. In regard to treatment he makes one suggestion to which the attention of those who practise homœopathy may be particularly drawn. Mr. Edmunds says: "With respect to cases of operative goitre without symptoms—that is to say, cases in which the presence of the goitre is the only trouble—it seems now to be clearly established that the administration of thyroid gland is the best treatment." This statement at first sight would seem to support the homœopathic doctrine that "like cures like," but the lecturer's further remarks tend to show that this method of treatment offers an excellent example of the futility of the homœopathic creed: "The effects of this treatment are so good that it [thyroid gland administration] must be regarded as a specific remedy; if it is, the enlargement of the thyroid gland must, in part at least, be attributed to an attempt at compensation and that attempt must be unsuccessful, for otherwise the increase in size would not proceed to the large dimensions that it does" Far, then, from being an instance of "like curing like" the administration of thyroid gland in cases of goitre is an example of modern therapeutics in which the products of a secreting gland being in abeyance the deficiency is supplied by obtaining such products from other sources and giving them to the patient, so providing substances which are necessary to the well-being of the organism. This method of procedure is adopted, then, with that idea and not with the object of "curing" the morbid condition of the gland.

THE EXTERMINATING COLLECTOR.

THERE is no better way of cultivating habits of observation and assuredly no pleasanter form of active education than the study of botany in the field. Botany may easily be made the driest of sciences and the morphology of plants the most complex, tedious, and heartbreaking form of knowledge to acquire The surest way to avoid turning the study of plant life into a mere classification of dry specimens is to observe in the open the natural life of the vegetable kingdom. A few hours spent in such a way under the guidance of one who knows the secrets and can point them out is worth more even than the professorial lectures of the Royal Institution. To see and to note the kind of soil in which particular kinds of growths flourish, which kind need shade or sun or wind or rain more than their fellows, which plants grow near which trees, and what is the time of year to find particular stages in the development of them all—these objects make field botany a live and delightful study. They can be achieved, too, and the most valuable lessons learned, without any "collecting." It is not necessary to take home and to dry and to dissect the rare plants for a proper understanding of them. See them in their scarce homes if you are lucky enough to, but, having seen them, leave them there for others to learn from too. In the big museums there are specimens for more detailed study and there are pictures and accounts in the text books. It is only the selfishness, the deficient altruism of the genus collector, that leads to the plucking of rare species in a country like England where these are so often already well-nigh extinct. It is in just the same way that rare birds and rare butterflies gradually get killed out of our country. A letter in the *Times* of June 3rd deals with this subject in discussing the programme of the Essex Technical Instruction Committee for Field Studies, and we are entirely in accord with the views of the writer, Professor Miall. Whether concerned in the teaching of botany or not we are all, as he says, interested in the preservation of our native plants We hope that Professor Miall's letter will have an influence in enlightening the mode of instruction apparently used by certain Essex botanists, even though it prevents the aggrandisement of a few private herbaria; and we are specially glad to see that in a letter to the *Times* of June 5th Professor Raphael Meldola as a co-opted member of the Essex Technical Instruction Committee, not only thanks Professor Miall for his letter, but says that the programme referred to was unofficial and had not been submitted to the committee. When education is the avowed object it must surely be a short-sighted policy which encourages individuals to possess themselves of rare specimens, removing to their private cases objects which might have instructed hundreds of future botanists in the field.

---

[1] THE LANCET, May 11th (p. 1317), 18th (p. 1331), and 25th (p. 1449), 1901.

"THE GOVERNMENT AND THE MEDICAL PROFESSION."

A GENTLEMAN has made a communication to us with regard to the leading article in THE LANCET of June 1st, p. 1551, on "The Government and the Medical Profession," who signs himself "An Onlooker" but who does not do us the compliment of trusting his name to us. The gist of his communication is that Mr. M'Kenna's method of bringing forward Dr. Irvine's case from Mr. Markham's side constituted a pantomime and that the House of Commons, being weary and hungry, objected to hear the matter debated at the dinner-hour. He says that the House preferred fair play and dinner to all else, but what sort of fair play was meted out by Mr. Chamberlain and Sir John Gorst to the General Medical Council, the disciplinary body of the medical profession, we are unable to say. Our anonymous correspondent is very vigorous in his assertions that Mr. M'Kenna's action was directed against Mr. Chamberlain and not inspired by a love of justice. Mr. M'Kenna probably knows the truth of the matter which is really of no consequence whatever. He properly raised a very important question in the House of Commons and whether he did so from a *bon motif* or not is a secondary matter.

THE CEREBRAL PATHOLOGY OF HEREDITARY CHOREA.

AN interesting contribution which throws light on the hitherto obscure pathology of hereditary or Huntington's chorea has been published in the *Revue Neurologique* of May 15th by Lannois, Paviot, and Mouisset. In a previous publication,[1] Keraval and Raviart stated that they found the following changes in the nervous system in a fatal case of hereditary chorea: rarefaction of the perinuclear protoplasm, even to the extent of disintegration, in the large pyramidal and small nerve-cells of the cerebral cortex; an infiltration of small round cells into the pericellular and perivascular spaces; swollen nuclei and faint staining of the protoplasm of the cell-bodies in the nerve-cells of the central convolutions; and similar changes in the cells of the spinal cord, especially in Clarke's column. Weigert's method also showed a diminution of the nerve-fibres in the superficial layer of the cerebral cortex (Exner's plexus) and a moniliform degeneration of nerve-fibres in various depths of the cortex. The "small round cells" alluded to above stained green with Rosin's methods, like the nuclei of neuroglia cells. Kattwinkel who investigated a case found a similar proliferation of small round cells, but regarded them as mononuclear leucocytes. The present case was as follows. A man, aged 68 years, by occupation a gardener, had suffered from chorea since 1872, but since 1896 as the result of an accident the symptoms had grown very severe. His father had died at the age of 80 years from the same complaint, and the patient's only brother, aged 65 years, was a sufferer from chronic chorea for many years. There was no history of alcohol or syphilis in the patient. He was thin and emaciated and had twitching of the face, lips, and eyes resembling grimaces. They occurred during both speech and silence and were accompanied by jerky movements of the eyeballs and of the nostrils. There were also present oscillations of the head and purposeless and choreic movements of the arms, legs, and trunk. On the patient lying down these movements diminished and voluntary effort arrested them for a while. All these movements were incoördinate and arrhythmic. Speech was hesitating and jerky and difficult to understand owing to the irregular movements of the lips and tongue. The general strength was good. No trophic disturbances or troubles of the sphincters were present. There were no stigmata of degeneration, except as regards the ears which showed a marked folding of the helix. The patient was loquacious and was inclined to slight incoherence of speech. There was some arterio-sclerosis. Obstinate constipation prevailed. The urine was free from albumin or sugar. The patient died from cachexia in March, 1900. The necropsy showed that all the internal organs were small and wasted in appearance. There was old tuberculosis of both apices of the lungs. The brain was of normal volume. Examination of the ascending frontal convolution after staining with Nissl's method showed an infiltration of small round cells in the molecular layer, but the medium-sized and small blood-vessels appeared normal. The nuclei of these round cells were blue and homogeneous in appearance, and were clothed with a pellicle of protoplasm unlike normal neuroglia cells. These cells occurred in nests of two, three, or four, and in the pericellular sacs of the larger nerve-cells they were numerous and conspicuous. The pyramidal cells showed an excess of yellow pigment in proportion with the age of the patient. Some pyramidal cells were pale and almost uniformly stainless. Only the larger cortical vessels showed proliferation of the perivascular sheath, especially in their course through the white matter. The ascending parietal convolution showed similar changes. No degenerated nerve fibres could be found with Marchi's method in Exner's plexus. The cervical spinal cord showed with Nissl's method a normal condition of the nerve cells. The spinal nerve-roots and meninges were normal. Hence the lesion was one of the cerebral cortex and from its nature it appeared to be incurable.

THE JUBILEE DINNER OF THE ISLINGTON MEDICAL SOCIETY.

THE dinner in commemoration of the fiftieth year of the above society was held in the Victoria Hall of the Criterion Restaurant on June 5th. Dr. James Grey Glover was in the chair, and among the guests were Sir William Turner, K.C.B., Dr. W. Bruce of Dingwall, Dr. Mitchell Bruce, Inspector-General Grant, Sir Albert Rollit, M.P., Sir John Glover, J.P., Mr. T. Lough, M.P., and Dr. Barlow, the newly appointed Dean of Peterborough, until recently vicar of Islington. After the usual loyal and patriotic toasts Dr. Glover proposed the toast of "The Islington Medical Society." He gave a sketch of the foundation of the society in 1850, there being 12 original members, of whom only one, Mr. Jackson, survived. He, although 87 years of age, would have been there that night but that he was suffering from his ninth attack of influenza. The speeches were interspersed with songs and musical sketches contributed by Dr. W. K. Byrne, Mr. Thomas Jago, Mr. Seymour Dicker, and others. The toast of "The Guests" was proposed by Dr. Alexander Morison and replied to by Sir William Turner and others. Great praise is due to the secretary, Mr. David Keele, for the success with which everything passed off, and the society may congratulate itself upon a very fitting jubilee festival.

NAILS IN BUNS AND CHEESE.

A CORRESPONDENT informs us that within a month he has heard of three tacks being found in buns and a bent nail three-quarters of an inch long in a piece of cheese. One of the tacks was not discovered until it had entered the mouth of the person eating the bun and the presence of the nail was also detected in the same way. In the case of an adult who properly masticates his food the chance of swallowing a foreign substance of this kind is perhaps a remote one, but in the case of children who have not their full complement of teeth or are careless, as children usually are, the presence of tacks in buns is a very serious matter and grave harm might result if the tacks were swallowed. The nail probably fell into the cheese during manufacture and the tacks were no doubt accidentally dropped into the dough together with the currants, having previously got amongst the fruit when the box containing it was opened. Such accidents in the preparation of food are always, of course, possible, but with due care they can be minimised. We feel sure that the attention of those who are responsible for the preparation and manufacture of articles of food likely to be "adulterated" in this way need only be drawn to the serious consequences that may arise from want of care to insure a remedy in the matter.

---

[1] Archives de Neurologie, 1900.

PLAGUE IN CAPE COLONY.

A TELEGRAM received at the Colonial Office on May 30th, gives the following statistics of plague for the week ending May 25th:—Fresh cases: Europeans 4, coloured persons 8, Malays 3, Indian 1, Chinese 0, natives 5, total 21. Corpses found: Europeans 1, coloured persons 4, Malay 1, Indian 0, Chinese 0, natives 0, total 6. Deaths, including corpses found: Europeans 3, coloured persons 8, Malay 1, Indian 0, Chinese 0, natives 4, total 16. The total cases to May 25th were Europeans 169, coloured persons 301, Malays 48, Indians 9, Chinese 1, natives 138, total 656. The total deaths were Europeans 55, coloured persons 155, Malays 35, Indians 6, Chinese 0, natives 57, total 308. One case occurred among persons under naval and military control. Infection in the town of Port Elizabeth has become more widespread and cases have occurred among persons living in the centre of the town.

DENTISTRY AND THE SERVICES.

FROM time to time the complaint is made that many recruits are lost to the services because adequate attention is not given to the men's teeth, and quite recently the question has again arisen in connexion with the medical examination of volunteers for the war in South Africa. The British Dental Association has taken action on the subject, but we understand that the Government have for some time past been making experiments in the matter which is not such a simple one as on the surface it seems to be. The military authorities, too, in the belief that it might be possible to save recruits to the service if dentists were employed at recruiting stations, have both at London and at Manchester had the teeth of recruits thoroughly examined, but the experiments proved a failure, for the results were practically *nil*. It has also been suggested that many men who are invalided out of the service might be saved to it if their teeth were properly attended to, as dyspepsia consequent on dental defectiveness is a frequent cause of men being invalided out of the service, and the military authorities have taken steps to carry out this recommendation, which, we believe, emanated from the generals commanding at Aldershot and at London and from the principal medical officers at those stations. Recently the War Office have been asked to send out to the army in South Africa four dentists with a view to prevent the invaliding of men by reason of "bad teeth." The British Dental Association were applied to for advice as to instruments, furniture, &c., and have recommended four dentists who will start almost immediately, if they have not already done so, for South Africa. The question of prevention of invaliding by a proper supervision of teeth is one which deserves and is likely to receive much attention, but as an aid to recruiting the matter is, we are afraid, doomed to failure for many reasons. In the first place we may mention that "bad teeth" is often inserted in recruiting registers when it is only one item against men who are constitutionally unsound and the entry would be more true if syphilis, scrofula, &c., were inserted in the place of "bad teeth." Possibly the authorities might amend their entries, but to argue that because a large number of recruits are rejected on account of "bad teeth" all these men might be saved to the army if their teeth were looked at by a dentist is absurd. But granting that a fairly large number of these might be gained to the army there is a practical difficulty in the working out of the scheme which may not have occurred to those who urge its advantages. Would the men requiring dental aid be attended to before being "attested"—i.e., passed *legally* into the army by making the declaration before a magistrate, which is necessary to place them under the "Army Act"? If so, there is nothing to prevent them from changing their minds after receiving the benefits of skilled attention and declining to enlist. On the other hand, if the men are actually accepted as soldiers in the legal sense alluded to, leaving the dentistry to be carried out subsequently, what is to become of them meanwhile? Take the large recruiting centres where men are enlisted for all regiments and corps. The men who are *passed* are sent off the same day to the depôts or regiments they are intended to join. If the teeth cannot be "rectified" that day the men must be housed in some quarters or barracks on the spot; or else they must still be sent off to their destination with an intimation to the commanding officer that they must not be considered really "sound" until the dentist has done with them. A dentist would therefore be necessary at every small station. In either case considerable expense would ensue which would only be justifiable if it could be shown that the number of men gained was large enough; and as the evidence tends to prove the contrary the authorities would be unwise to act precipitately in the matter. With regard to the Royal Navy there is less need for any alteration in the existing condition of things. Every medical officer in the Royal Navy is now specially trained in dentistry at Haslar and passes a practical examination in the subject before he leaves the hospital. Moreover, a complete set of dental instruments is supplied to each ship as part of the new outfit of surgical instruments and two surgeons are specially employed at Portsmouth and Plymouth to attend to the dental requirements of the men at these important ports.

DEATH UNDER CHLOROFORM.

ON May 29th a man, aged 42 years, a stevedore, died under chloroform at the Seamen's Hospital, Royal Albert Docks. The patient was suffering from hydrocele for which he desired to be treated as it had occasioned him considerable pain for some time. The assistant resident medical officer administered chloroform on a towel, but after a few inhalations the patient became very restless and struggled violently. When almost under the anæsthetic, and while the parts were exposed previously to preliminary cleansing of the skin, the patient suddenly ceased to breath, the face became deeply congested, the pupils dilated and the pulse began to fail. Artificial respiration was instantly commenced and was maintained. After a minute or two the breathing seemed about to be re-established, the pupils contracted, and the pulse revived a little. The improvement, however, was only evanescent. Hypodermic injections of ether and strychnine proved useless. Oxygen was inhaled during artificial respiration and the battery was freely applied. As there was no response Mr. J. Cantlie, at Dr. J. Catto's request, cut down upon the heart, opened the pericardium, and applied digital compression to the ventricles.

There was, however, but little, if any, contraction induced, and it was only when one pole of the battery was applied to the anterior inter-ventricul groove that the cardiac muscle contracted, and then only for a few times. An interesting fact noted during the application of the battery was, that when a certain area in the inner aspect of the left chest was accidentally touched by one of the poles of the battery, pronounced contraction of the muscles of the left chest and of the left shoulder and arm ensued. This, after happening once or twice, was more fully investigated, with the following result. With one pole of the battery over the course of the left pneumogastric in the neck, on a level with the upper border of the thyroid cartilage, and with the other pole touching a spot in the inner aspect of the fourth and fifth intercostal spaces in a line drawn vertically downwards from the nipple, contraction of the muscles of the left shoulder and arm took place. Production of this phenomenon was limited to an area of about the size of a crown-piece. The contraction consisted of a pronounced spasm of the muscles of the left pectoral region of the left shoulder: the whole shoulder and left arm seemed to be hitched upwards violently. The heart seemed also to be raised in harmony with the left shoulder, but this appearance may have been deceptive. When the pole of the battery was applied on the surface of the skin over the "excitable area" noted within the chest a similar but much milder contraction resulted. This phenomenon is given in detail as not only an interesting physiological fact, but also as a possible explanation of the local and left-arm pain experienced in certain cardiac lesions, the "excitable area" being for the most part on that part of the chest wall immediately superficial to the apex of the heart. The post-mortem examination was made and reported upon by Mr. Angus Kennedy. The evidence given at the inquest showed the viscera, including the heart, to be quite healthy and the jury returned a verdict "That deceased died from syncope due to the administration of chloroform."

THE CULTIVATION OF DISTANT VISION.

THAT the vision of many children for distance is below the average and that it is capable of improvement by exercise are the topics dwelt upon by Mr. Brudenell Carter in an address lately delivered before the Society of Arts. He pointed the moral of his story by referring to the events of the present war in which the advantages of clear, acute, and rapid vision for distant objects have been very distinctly demonstrated. Some years ago Mr. Carter satisfied himself as the result of the examination of the sight of a large number of children in London elementary schools, and subsequently of children born and bred in the country, that town children cannot see distant objects as well as country children do and he attributes this difference to the circumstance that the town child never looks at anything smaller than the people around him or other objects seen under a large visual angle, whilst his range of accommodation is ordinarily limited to the length of a short street or the opposite side of the way. The country child, on the contrary, has constantly before him an expanse of landscape with various objects seen under small visual angles. Assuming Mr. Carter's statement to be correct the question is whether the distant vision of a town child can be improved by systematic training. It is obvious that several things have to be considered in matters of this kind, as the acuteness of sensibility of the seeing organ, the varying conditions under which it is exercised, and the mental alertness in receiving impressions as well as judgment in drawing correct conclusions from the impressions transmitted to the brain. As Mr. Carter observes, the statements so frequently made in the daily papers that the average vision of Boers is superior to that of English soldiery is only superficially true. The Englishman accustomed to town life makes no allowance for the purity and transparency of the air of South Africa and therefore misjudges distances; accustomed to the unceasing activity that surrounds him in a town, his attention is not attracted, as his eye wanders over the wide and quiet areas of the veldt, by a slight motion, a difference in colour, or a peculiarity in form that is instantly observed by the watchful Boer. Mr Carter justly says that an unaccustomed person would probably see the small image of a horse, man, or beast just as well as the Boer, but he would be both less accurate in his perception and less prompt in his interpretation of it. It is, then, not so much the eye as the brain that requires education; the southron who becomes a Highland gamekeeper soon rivals the north-country man in the quickness with which he discovers his quarry, and whilst it does not seem probable that any amount of practice will effect much diminution in the size of the smallest object that a particular eye can see, great improvement may be obtained by exercise in other directions, and we endorse Mr. Carter's recommendations that the vision of all children should not only be carefully tested but that they should be regularly trained to distinguish differences in the form and colour and movement of external objects, as well, perhaps, as for lateral vision. Our eyes are wonderful results of evolution, but they are by no means perfect instruments, and there is no reason why they should not, with the parts of the brain with which they are connected, undergo further development both in the extent and precision of their functional activity.

A DRAMATIC "ADMINISTRATION."

SUPPORTERS of the modern theatre are wont to boast that, whether the methods of to-day do or do not tend to the production of great literary plays, at any rate there is enormous improvement upon former times in the manner in which plays are put upon the stage. Thus we have Shakespeare's plays, they maintain, so represented that an audience may see his characters in just such actual surroundings as those in which the dramatist conceived of them as moving. We behold the very colours of Italy and the streets of her towns, and Juliet makes love out of a real balcony. In this way history is made vivid and education may be advanced. In spite, however, of a general striving after realism and a close imitation on the stage of the "real thing," there are certain traditional and entirely false representations that seem to have a permanent hold on the English stage. One of these is the stage "doctor." The striking characteristics of this gentleman are a supernatural and most depressing solemnity and an inconceivable rapidity in the construction of prescriptions, which seem to flow from his finger-tips almost before he has sat down to write them He is also accustomed to appear in a frock-coat and black tie, whether his presence is demanded in the heart of the country on a warm summer's day or in London at an hour when he would naturally be in evening clothes. Inaccuracies of this kind are, however, only amusing and probably help the picture dramatically. Moreover, always to dress a particular kind of man in a particular way on the stage serves to mark him out plainly for the audience, much as "This is a wall," written upon the primitive hoardings of the bygone stage, adequately represented structures usually composed in reality of brick and stone. When, though, an inaccuracy or an anachronism is too blatant it distracts attention from more important features of the performance, and the critic resents it all the more when the rest of a production is well in keeping with the times and places represented. For these reasons we wish that Sidney Carton had recourse to some other method than that of inhalation when he wishes to render Darnay powerless and to take his place in prison The Reign of Terror, which is the time represented in *The Only Way*, was in 1793, and the idea of anæsthetisation by the inhalation of drugs was mooted for the first time in 1800 by Sir Humphry Davy This, of course is most likely not a familiar fact to the average theatre-goer, but most people know that chloroform was not introduced till many years later and many of them must be a little puzzled by its use in Mr Martin Harvey's prison scene The anachronism is really to be put upon the shoulders of Charles Dickens, for in this scene the play follows the "Tale of Two Cities" very accurately Since, however, the adapter has a pretty free hand elsewhere in departing from the details of the book he might well have taken the opportunity here to improve upon the author in a matter of historical accuracy Mr Harvey may certainly be congratulated upon his "administration" which is begun without the "patient's" knowledge, and though of short duration appears to have a remarkably lasting effect

THE DIAGNOSIS BETWEEN EXTRA-UTERINE PREGNANCY AND ABORTION

THE danger of mistaking extra uterine pregnancy for abortion is not sufficiently appreciated In the *Journal of the American Medical Association* of May 11th Dr H N Vineberg has published a useful paper in which the symptoms of the two conditions are carefully compared He refers to several cases in which women had been under treatment for weeks and had been curetted for a supposed uterine abortion when the condition present was tubal pregnancy He condemns the plan of attempting to curette the uterus without complete anæsthesia The operation can then be performed only imperfectly Moreover it should be preceded by a thorough examination under anæsthesia so as to exclude the possibility of ectopic gestation The following cases illustrate the difficulty of diagnosis A woman gave a history which pointed to simple abortion at the third week of pregnancy Examination which was not quite satisfactory owing to a thick abdominal wall and flatulent distension of the intestines, seemed to confirm this diagnosis, only a slightly enlarged uterus and a patulous os were discovered She was admitted to hospital to be curetted Under anæsthesia Dr Vineberg was surprised to find behind the uterus an ill defined mass which seemed to be an inflammatory exudation After curetting the uterus and removing considerable decidual tissue he determined to ascertain the character of the mass by vaginal incision It proved to be made up of old and recent clot As the ruptured tube was not accessible it was removed by abdominal incision Recovery was uninterrupted Sometimes the patient leads the practitioner astray by a misleading history Thus a woman after a period of amenorrhœa of 17 days began to lose blood A week later she had abdominal pain with persistence of the flow She made light of her symptoms and ignored the advice to be curetted While at business she expelled a mass one day which she asserted was the fœtus She triumphantly said, "I told you it would come away of its own accord, several others have formerly" Three weeks later she was suddenly seized with symptoms of collapse while at stool, and with difficulty was taken home in a cab When seen six hours later she was extremely anæmic, and had a weak pulse of 120 She was apathetic and did not seem to suffer pain The abdomen was large, fat, and hard. On vaginal examination an irregular mass was felt behind and to the left of the uterus Ruptured tubal pregnancy was diagnosed and consent to the performance of an operation was obtained on the following morning But when the patient was placed on the table she became collapsed The abdomen was rapidly opened; it was full of clots, among which a 10 weeks fœtus was found. She did not rally and died an hour later The flow attending a ruptured tubal pregnancy is usually less profuse and more irregular than that which accompanies abortion The former is more likely to occur as a mere "show" which comes and goes, the latter is more continuous But there are numerous exceptions Dr Vineberg has seen very profuse uterine hæmorrhage in tubal pregnancy. Martin reports a case in which it was so severe as to be fatal On the other hand, miscarriage may threaten for a time with a very scanty flow, which may even be irregular, coming and going as in ectopic pregnancy But when a woman has passed her period for a few days only and begins to have an irregular and scanty flow suspicion of ectopic pregnancy should be entertained On the other hand, rupture may take place in ectopic pregnancy without the missing of a period In one case Dr Vineberg observed rupture 17 days after an apparently normal period Some writers have laid stress on the "colicky" nature of the pain in extra uterine pregnancy But the fact that the pathological lesions vary is, apart from other considerations, sufficient to account for differences in the pain in different cases In one case the sac ruptures, in another it is expelled through the ostium abdominale (tubal abortion), in a third there is hæmorrhage into the tubal wall As a matter of fact the character of the pain is very variable It may be sharp and lancinating or "bearing down" as in dysmenorrhœa, it may resemble labour pains or ordinary colic, it may be characterised by a tearing, agonising sensation which cannot be endured, or it may be of a throbbing nature like that attending an inflamed ovary Again, pain of any kind may not be a prominent symptom and its existence may be elicited only by repeated questioning The expulsion of a decidual cast or of membrane is regarded as a sign of great value But no membrane may be discharged in a great number of cases, the decidua being cast off in shreds or undergoing degeneration, or membrane may be cast off unnoticed in the blood clots Moreover, the patient may say that she has passed membrane, which was really only organised clot Lastly, the microscopist cannot distinguish between the decidual cells of a uterine and a tubal pregnancy As to physical examination, in a fat and rigid abdomen it is very easy to overlook a slightly enlarged tube Dr Vineberg rightly insists on the necessity of regarding with suspicion every case of apparently early abortion and of making a complete examination under an anæsthetic in every case which does not run a simple course

THE ARMY MEDICAL SERVICE

WE have already announced that Surgeon General J Jameson, C B, honorary surgeon to the King, Director-General of the Army Medical Service, is placed on retired pay Surgeon General Jameson, whose term of office had not expired, relinquished his duties as head of the Army Medical Service at the end of last month, and official notice of his retirement is given in the *London Gazette* of June 4th It is confidently stated that Surgeon General W Taylor, C B, who is at present Surgeon General of His Majesty's Forces in India, will be, if he has not already been, recalled to this country We have previously expressed our opinion, which we see no reason for altering, regarding the absence of the name of the late Director General of the Army Medical Service in the list of those rewarded for their services in connexion with the present war in South Africa We are surprised that the excellent opportunity afforded by Surgeon General Jameson's retirement has not been seized upon The inclusion of Surgeon-General Jameson's name in the next big list of honours will hardly set matters right now that he has retired, and the slight which has been placed upon the Army Medical Service may be at this juncture most unfortunate. Everybody is anxious to know when Mr. Brodrick is going to appoint the promised committee of experts and what is to be done with the Army Medical Service. There are rumours of all kinds in abundance, but as far as we can ascertain nothing is really known of the War Minister's intentions. The state of uncertainty arising from the absence of any definite information may be considered detrimental to the interest of the public service; but Mr. Brodrick is in a situation where he can easily go wrong. Ill-advised interference on purely professional points may wreck an excellent scheme, and perhaps he is justified in being deliberate.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION OF ENGLAND AND WALES.

The annual meeting of this association will take place at the Trocadéro Restaurant, Piccadilly-circus, London, W., on Tuesday, June 18th, at 6 P.M. At 7 P.M. the members and their friends will dine together, Dr. R. Farquharson, M.P., President of the association, in the chair. Poor-law medical officers desiring to be present are requested to communicate with the honorary secretary, Dr. M. Greenwood, at 9, Copthall-avenue, London-wall, E.C. The price of the dinner will be 7*s.* 6*d.*, exclusive of wine.

SCARLET FEVER DUE TO INFECTED MILK.

Dr. George Newman, the medical officer of health of the borough of Finsbury, has recently issued a most interesting report upon an outbreak of scarlet fever in that borough which was due to infected milk. On May 7th there were notified nine cases, and between that date and May 14th 15 more. Upon receipt of the first notifications inquiries were set on foot and five out of the nine cases were found to have one feature in common—namely, that they had derived their milk-supply from a shop belonging to A. The milk was supplied to A by a contractor, B, who also supplied certain shops in Shoreditch and Bethnal Green. B in his turn derived his supplies from farms in Staffordshire and Derbyshire. B owned that certain milk which he had supplied to Bethnal Green and Shoreditch was suspected of having caused an outbreak of fever in those districts. He was certain, however, that none of this milk had been delivered in Finsbury. The milk in question had been obtained from a farmer named C, whose farm had been visited by Dr. W. H. Hamer on May 4th. Scarlet fever was found to be existing on this farm and the London County Council authorities accordingly informed B who at their request stopped the supply of milk from that farm. He knew nothing of the existence of scarlet fever until the Council informed him of it, and he admitted that he had no means of knowing whether or not there existed any infectious disease on the farms where his milk came from. On May 8th B called at the Finsbury Town Hall and informed the medical officer of health that he had made a mistake and that on the morning of May 3rd one churn, or possibly two churns, of milk from C's farm had been delivered to A. It was therefore evident that a certain quantity of infected milk had been distributed in the borough of Finsbury. 11 cases were traced to this milk obtained from A. Of the remaining 13 cases, in eight the milk was obtained from shops supplied by B. Two of the patients, whom we may call D and E, were infected in a somewhat curious manner. Their infection, says Dr. Newman, was evidently due to milk, and moreover to milk obtained on May 3rd. The milk in these cases was not got from A, but from another shop in J——road. Inquiries, however, elicited the fact that on May 3rd A's milk-boy when on his round met the milk-boy from J——road. This boy's supply had run short and he accordingly borrowed from A's supply. This supply contained milk from C's farm, a supply which was stopped shortly afterwards. The cases were all of a mild type, but, as Dr. Newman points out, the outbreak is instructive in so far as it shows how little real control there is over milk-supplies. Somebody buys milk brought to his door, which milk comes from a small shop supplied by a contractor who is again supplied by a number of farms. Purchaser, distributer, and contractor are all ignorant that the milk may be derived from a farm on which infectious disease exists. Dr. Newman considers that every contractor should keep a register of milk-shops to which the milk from every farm with which he deals is delivered, and secondly, that he should deal only with farmers who are willing to give a written guarantee that they will at once notify any outbreak of disease in man or animals upon their farms.

Lord Lister, F.R.S., will open the new operating theatres and children's ward at St. Thomas's Hospital on June 20th at 4 P.M. The theatres have been fitted with all the latest improvements for the carrying out of aseptic surgery and the new block of buildings is provided with an artificial system of ventilation. The children's ward is elaborately decorated with pictorial representations of fairy tales and nursery rhymes in tiles, the expense being defrayed by one of the governors of the hospital.

At an investiture held at St. James's Palace on June 3rd the recipients of the various honours in connexion with the operations in South Africa were introduced to the presence of the Sovereign when the King conferred their honours upon them. The names of the recipients who are members of the medical profession have already been printed in our columns.

The annual meeting and dinner of the Association of Public Vaccinators will take place at the Hotel Great Central on Friday, June 28th. Public vaccinators, whether members of the association or not, may obtain tickets for the dinner (price 7*s.* 6*d.*, exclusive of wines) on application to the honorary secretary, Mr. V. A. Jaynes, 157, Jamaica-road, S.E.

The death occurred on Saturday night (June 1st) of Dr. James Aitken Myrtle of Harrogate. Dr. Myrtle, who had practised in Harrogate for some 18 years, was at the time of his death holding for the second time the office of Mayor of Harrogate. We hope in a future issue to give a notice of his career.

A conversazione will be given by the West London Medico-Chirurgical Society on Friday, June 21st, at 8.30 P.M., in the Town-hall, Hammersmith, W., when Sir Richard Douglas Powell, Bart., K.C.V.O., will deliver the Cavendish Lecture, taking for his subject Acute Cardiac Failure.

We learn with great regret that Mr. Thomas Bond, F.R.C.S., consulting surgeon to the Westminster Hospital, committed suicide during an attack of mental aberration on Thursday morning by throwing himself from a third-floor window of his house in Broad Sanctuary.

Dr. R. Deane Sweeting, M.A. Oxon., medical inspector of the Local Government Board, has been appointed examiner in Public Health and Preventive Medicine in the University of Oxford.

The report of the Army Medical Department for 1899 was issued as a blue-book on June 4th. We shall deal with the report at length in a future issue.

THE LANCET

SPECIAL SUPPLEMENT

IN SUPPORT OF THE

METROPOLITAN HOSPITAL SUNDAY FUND

Published in aid of the Appeal to be made on Sunday, June 16th, 1901

OUR THEME IS EVER OLD AND EVER NEW.

IT has again become our duty to address the readers of THE LANCET, and that still larger public for which our annual Hospital Sunday Supplement is prepared, on the claims of the Metropolitan Hospitals to their sympathy and practical support We know that the subject has now become so familiar to our readers that it may be considered threadbare. This is, for example, the sixteenth time that we have published our appeal in aid of the Fund, and it is impossible that there can be many arguments left which plead in favour of generosity to the Fund which we have not already employed. For we have considered the matter from every aspect, and from each and all the claims of the hospital upon the public remain unaltered Our advocacy must necessarily be made on the same grounds from year to year. The poor have never such a right to ask their more fortunate neighbours for help as when they are sick; the hospitals exist for the succour of the sick poor; therefore it is the duty of all who can to assist the hospitals to the best of their ability. This must always be the gist of what we have to say, but the breadth of the questions involved in the matter is such that they cannot be dealt with exhaustively within the space of any one supplement. The social scheme, even in conservative England, is eternally altering, and in whatever way it changes such institutions as the Metropolitan Hospital Sunday Fund are sure to be affected by the variation

Of the many factors which obviously must operate one way or another for or against the finances of the Metropolitan Hospital Sunday Fund two are very general in their working, the whole nation is touched by them, and the Fund feels their influence. These are the fluctuations in population and the incidence of taxation, and to these we propose to refer this year somewhat at length.

LONDON LARGER THAN EVER.

The following table gives the population enumerated in 1901 at the recent census in the administrative county of London and in the 29 Metropolitan Boroughs:—

Population enumerated in 1901 in the Administrative County of London and in the 29 Metropolitan Boroughs.

Metropolitan boroughs.	Enumerated population, 1901	Metropolitan boroughs.	Enumerated population, 1901.
City of London ...	26,908	Lambeth	301,873
Battersea	168,896	Lewisham	127,460
Bermondsey	130,486	Paddington ..	143,954
Bethnal Green	129,681	Poplar	168,838
Camberwell	259,258	St Marylebone ..	133,329
Chelsea	73,656	St Pancras	235,234
Deptford	110,513	Shoreditch	118,705
Finsbury	101,476	Southwark	206,128
Fulham	137,289	Stepney	298,548
Greenwich	95,757	Stoke Newington	51,247
Hackney	219,288	Wandsworth	232,030
Hammersmith	112,245	Westminster, City of	182,977
Hampstead	81,902	Woolwich	117,165
Holborn	59,390		
Islington	334,928		
Kensington	176,623	Administrative County of London	4,536,034

The table is based upon summary returns furnished by the local registrars and must be regarded as provisional only, being subject to modification in detail when in due course the enumeration books have been received and scrutinised at the central office. But it is accurate enough for our purpose and shows that on April 1st in the present year the administrative county of London contained upwards of 300,000 more persons than lived in the same area one decade ago, 300,000 persons! Nearly the population of Bristol, and more than that of Bradford, Nottingham, and Newcastle has been added to the population of London since 1891. It is true that this increase falls short by 25 per cent. of the estimate of the statisticians, but the figure is quite large enough to make us pause, quite large enough to give thoughtful people material for contemplation when they remember that the great majority of the added thousands are poor persons who are compelled to some extent to look to charity for assistance in times of sickness. For the depletion of the country and the overcrowding of the towns consequent upon it still go on, and although we are glad to see by the figures that have been published by the Registrar-General that anticipation as to the extent of this transference of population has been belied, it will be some years before any real decentralizing movement will be felt. The increase of the population of London still goes on, and will go on. Hamlets become populous streets, populous streets connect one outlying urban district with another, and acre after acre of the environments of London becomes a solid mass of houses. The depletion of the country side is not so progressive as it has been, and the population of the metropolis at the recent census has fallen a little short of the estimated figure, but we must not for that reason lose sight of the fact that it has increased enormously during the decade. The unremunerative nature of work in the country—unremunerative because land-owners and tenants cannot afford to pay high wages when their produce finds so poor and so precarious a market—drives labourers to the cities; country life is terribly monotonous to an educated population, able by cheap methods of transit to obtain a view for themselves of the more stirring experiences of those who live in close contact with crowds of their fellows; the hopelessness of progression in the country is perceived by the more ambitious—a good ploughman remaining a good ploughman for ever, never having the slightest chance of rising above the position in which he was born, or of obtaining better wages at 40 years of age than he received when he was a lad with only himself to support. Born within a measurable distance of the workhouse of parents who, if he cannot succour them, will enter the workhouse, the agricultural-labourer can look forward very often to no better fate for himself than the workhouse. These things have combined all over England to make young men go to the towns. The fact is a sad one as well as a significant one, for they leave a healthy life for an unhealthy life, and 99 per cent. of them find that it is as difficult to progress in London as it is in the country, while higher wages are more than swallowed up by vastly higher expenses. There is, however, the hundredth chance. One man out of a hundred who leaves his village at the bottom of the social ladder may raise himself a step or two on the ladder, and, as it is the first step that counts, there is no reason why, having once started, he should not go quite high. For the sake of the hundredth chance the large towns have to cater for an enormous increase of population, a large proportion of which population lives in poverty; and of all large towns in the world none has attracted to itself such an overwhelming number of persons to whom illness may mean ruin as London.

STATISTICS OF HOSPITAL WORK IN LONDON DURING THE YEAR 1900.

TABLE I. — GENERAL HOSPITALS.*

N.B.—The figures referring to out-patients in these Tables represent the number of VISITS *paid by out-patients—*NOT *the* NUMBER *of out-patients.*

Name of hospital.	Hospital Sunday Fund award.	In-patients	Relieved.	Cured.	Convalescent homes	Remaining under treatment	Died	Out-patients' visits.	Accidents and emergencies
	£								
Charing cross	1,169	2,248	1,252	1,008	338	144	188	44,973	9,825
French	326	875	219	551	73	49	66	16,797	475
German	594	1,631	375	507	439	108	112	48,576	3,029
Great Northern Central	623	2,034	1,681		133	139	214	70,620	5,581
Guy's	1,533	7,320	5,959		858	446	654	350,000	67,044
Hampstead	211	312	58	241	21	18	13	2,687	73
Italian	19	215	208		—	17	7	14,019	16
King's College	1,533	2,551	713	1 333	235	188	204	41,469	8 242
London	4,600	12,154	5,684	4,884	1,491	641	1,243	351,708	17,932
London Homœopathic	623	1,128	302	612	160	79	55	—	1,067
Phillips Memorial Homœopathic	33	93	22	57	8	9	2	2,436	7
London Temperance	786	1,282	234	851	20	84	117	21,015	14,012
Metropolitan	690	964	175	546	118	106	114	100 890	13,605
Mildmay	250	468	83	301	102	10	26	24,036	2,940
Miller Hospital and Royal Kent Dispensary	268	309	72	180	—	14	31	68 752	6 252
North West London	383	494	189	273	20	40	24	38,279	—
Poplar	623	954	611	274	45	52	60	25,378	23,742
Royal Free	1,006	2,030	1,794		143	114	212	93,905	18,200
St. George's	1,036	4,106	2,397	138	1,077	278	385	90,769	12,556
SS John and Elizabeth	48	57	21		—	45	13	—	—
St. Mary's	1,974	4,068	1,007	2,182	302	223	400	96,557	17,294
St Thomas's	431	6,291	5,202		635	433	568	88,128	709
Seamen's	1 114	2,400	415	1,700	40	241	107	92,763	—
The Middlesex	2,012	3,758	2,651		715	288	467	113,378	—
Tottenham	192	—	—	—	—	—	—	—	—
University College	1,246	2,096	898	1,149	233	140	267	131,086	26,461
Walthamstow	86	392	14	328	—	24	23	3,200	1,061
West Ham	393	709	246	356	—	45	82	71,745	11,146
West London	623	1,081	1,694		—	117	170	87,993	7,147
Westminster	1,341	2,363	1,549		387	174	253	30,000	11,500
	£26,675	65,883	14,996	17,561	7,633	4,311	6,087	2,126 656	280,000
Estimated to supply omissions	—	691	8,678	12,024	25	31	78	46,479	34,066
Total	£26,675	66,574	23,669	30,185	7,658	4,342	6,165	2,172,185	314,066

* We reproduce the term "General Hospitals" as employed by the Council of the Metropolitan Hospital Sunday Fund.

Progress of the Metropolitan Hospital Sunday Fund.

The development of London has not been accompanied by any corresponding growth in the Metropolitan Hospital Sunday Fund. In point of fact, the annual collection shows no growth at all. From time to time the amount placed at the disposal of the Council of the Fund receives a welcome augmentation from the bounty of some private individual, but the sum collected in the churches was actually less in 1893 than in 1884, and had it not been for private munificence the Fund would have been sadly crippled in 1891, 1894, and notably 1895.

Progress of the Metropolitan Hospital Sunday Fund.

Year.	Totals.	Donations.	Year.	Totals.	Donations
1873	£27,700	£1844	1887	£40,607	£4130[4]
1874	29,936	1605	1888	40,379	3000
1875	26,396	1424	1889	41,744	3482
1876	27,042	1339	1890	42,814	3991[5]
1877	26,082	947	1891	45,330	9019[6]
1878	24,904	1199	1892	41,512	4429[7]
1879	25,601	1180	1893	39,290	3652[8]
1880	30,423	1567	1894	43,679	7717[9]
1881	31,856	1638	1895	60,361	21,990[10]
1882	34,146	2106	1896	46,035	3582[11]
1883	33,935	1990	1897	41,003	2381[12]
1884	39,329	6410[1]	1898	40,397	2817[13]
1885	34,320	2555[2]	1899	53,504	15,310[14]
1886	40,399	4817[3]	1900	51,993	14,657[15]

Let us take the collection of the Fund at its best and apportion it over the population of the metropolis. In 1890 the amount collected by offertory was nearly £39,000 and the population nearly 4,200,000, so that the average contribution of every individual would amount to something *less than* 2½*d.* For the purpose of this estimate it is assumed that only the County Council's London is interested in the hospitals of the metropolis. But that is very far from the fact. Outside the official boundary lies a densely populated zone inhabited by Londoners, although nominally appertaining to the adjacent rural districts, and to this area are extended in no small measure the benefits of the metropolitan hospital system. Were the population of Greater London taken into account for the purposes of our present estimate the modest figure would shrink considerably. *Let it*, however, suffice to assume, without refining upon the figures, that Londoners are prepared to support the great charitable work of their hospitals to the extent of an annual subscription of 2½*d.* a head. This is by no means [illegible] ng the result, [illegible] whatever kind [illegible] proportion to the number of heads would bear very unduly upon the poor, yet if, on the *other hand*, the benefits conferred by hospitals are considered, it will, of *course*, be found that these are in a preponderating measure realised by the most numerous and least wealthy classes of the community. The *families*, including children, *of the* poor are no less dependent than the families of the rich upon *medical attendance*, and to a very large extent in the case of poor people this necessity is supplied by hospitals. An estimate of population, therefore, affords the best means of realising how the benefits of the hospital service are distributed, for no class is excluded from these benefits; and when it is realised that the return made in the *form* of the Metropolitan Hospital Sunday Fund works out at something less than 2½*d.* a head it will, we think, be freely admitted that there is *good* reason for regarding it, not only as inadequate to the needs of the hospitals, but also as unworthy of the community which contributes it.

THE SMALL CONTRIBUTOR.

This is a view of the facts which should commend itself especially to persons of *moderate* or restricted means. To such the Metropolitan Hospital Sunday Fund affords a peculiarly *fit opportunity of tendering support to the medical charities* of London. A small subscription given in this way possesses both actually and sentimentally a value that it could not otherwise have. It is no small thing that the widow contributing *her mite upon this* occasion should *be able to feel* that it becomes *part* and *parcel of* a Fund large *enough to* form an indispensable part of the charitable revenues of this great city, and yet drawn almost entirely from sources such as her own benevolence has opened up. Thousands of *persons in London are so situated.* The subscription list with its regulation guinea is not for them, and were it not for the recurrence of the Fund collections they would stand quite aloof, wishing well to their suffering neighbours but being powerless to promote their well-being in any way.

It is from this class that the revenues of the Metropolitan Hospital Sunday Fund are chiefly drawn. Large contributions are the exception and rightly so. But we fear that *they will not remain the exception* unless the feeling *of the public that* to support the *hospitals* is an urgent obligation becomes more general. *For although the Fund* has claims upon the rich it has especial claims upon the poor, and the comparatively poor are so much the most numerous class that they preponderate by reason of their numbers, and *must so do as long* as the Fund continues to command the general confidence and support of the people at large. It would, indeed, be a sad day if the struggling many withdrew from the support of this charity. It is upon the sympathy of the many that any great undertaking must be built which, *like that advocated to-day*, requires ample and continuous pecuniary support.

THE NUMBER OF HOSPITALS AND MEDICAL CHARITIES IN LONDON.

The following is the *list of Hospitals* and Allied Charities to which awards were granted by the Metropolitan Hospital Sunday Fund in the year of the foundation of the Fund:—

List of Hospitals and Allied Charities which Obtained Awards in the First Year of the Fund (1873).

Belgrave Hospital for Children.
British Hospital for Skin Diseases, Great Marlborough-street, W.
Bromley Cottage Hospital.
Charing Cross Hospital.
Cancer Hospital, Brompton.
City of London Lying-in Hospital.
St Peter's Hospital for Stone.
City of London Hospital for Diseases of Chest, Victoria-park.
Dental Hospital, Leicester-square.
East London Hospital for Children.
Evelina Hospital
French Hospital.
German Hospital
Great Northern Hospital
General *Lying-in Hospital.*
Hospital of St. John and St. Elizabeth.
Hospital for Diseases of *Throat.*
Hospital for Women and Children
Hospital for Sick Children.
London Hospital
Homœopathic Hospital
University College Hospital.
North-Eastern Hospital for Children.
North London Hospital for Consumption.
Queen Charlotte's Lying-in Hospital.
Royal Orthopædic Hospital.
Royal South London Ophthalmic Hospital.
Royal Hospital for Diseases of the Chest.
National Hospital, Ventnor.
Middlesex Hospital.
Seamen's Hospital.
Samaritan Free Hospital.
St. George's Hospital.
Seaford Convalescent Home.
Victoria Hospital for Children.
West London Hospital.
Westminster Hospital.
Wimbledon Cottage Hospital.
Royal London Ophthalmic Hospital.
Royal Free Hospital.
Metropolitan Hospital.
Poplar Hospital
National Hospital for the Paralysed.
St Mark's Hospital.
British *Lying-in* Hospital.
Male Lock Hospital.
King's College Hospital.
Hospital for Women.
Female Lock Hospital.
Western Ophthalmic *Hospital.*
Hospital for Hip Diseases in Children.
Chelsea Dispensary.
Camberwell *Dispensary.*
City Dispensary.
City of London Dispensary.
Clapham General Dispensary.
Eastern Dispensary.
Finsbury Dispensary.
Farringdon General Dispensary.
North-West London Free Dispensary.
Haverstock Hill Dispensary.
Holloway Dispensary.
Islington Dispensary.
Islington *and North London* Provident Dispensary.
Kensington Dispensary.

---

[1] In 1884 £4500 was received from the managers of the International Health Exhibition

[2] In 1885 a special donation of £1000 *was received from Dr James* Wakley, Editor of THE LANCET.

[3] *In* 1886 a *further* special donation of £1000 was received from Dr James Wakley

[4] In 1887 a *legacy of* £1000 was paid *by* the executors of the late Dr James Wakley.

[5] Including legacy of £1003 14*s.* from the executors of the late [illegible]

[illegible] tion of £1000

[illegible] gave a donation of £10,000, [illegible]

[12] In 1897 Sir Savile *Crossley* gave *his* seventh donation, amounting this year to £500

[13] *In* 1898 *Sir* Savile Crossley gave his eighth donation, amounting this year to £500

[14] In 1899 Mr George Herring gave £10,000, Mr. J Lane Densham gave £1050, and Sir Savile *Crossley* gave his ninth donation of £500

[15] In 1900 Mr *George Herring* gave a further donation of £10,000, and Sir Savile Crossley gave his tenth donation *of £500* An anonymous donor, "F. H.," gave £1000, and £1000 was received from the estate of the late Thomas King

Kilburn and Maida Vale Dispensary.
London Dispensary.
Metropolitan Dispensary.
Public Dispensary
Portland Town Free Dispensary.
Paddington Provident Dispensary.
Queen Adelaide's Dispensary.
Royal Kent Dispensary.
Royal South London Dispensary.
Royal Pimlico Dispensary.
St George's and St. James's Dispensary.
Tower Hamlets Dispensary.
Western General Dispensary.
Western Dispensary.
South Lambeth and Brixton Dispensary.
Westminster General Dispensary.
South Western Provident Dispensary
St. John's Wood and Portland Town Dispensary
Margaret-street Infirmary

TABLE II—SPECIAL HOSPITALS

Name of hospital.	Hospital Sunday Fund award	In patients	Relieved.	Cured.	Convalescent homes	Remaining under treatment.	Died	Out-patients' visits.	Accidents and emergencies
	£								
City of London for Diseases of Chest	671	1,132	1,049	—	—	115	83	60,503	—
Hospital for Consumption	1,821	1,531	1,055		—	283	193	68,783	—
North London „	364	493	440		—	93	12	26,000	—
Royal Hospital for Diseases of Chest	383	702	567		39	72	63	26,244	—
Royal National Hosp for Consumption	287	899	616	—	—	150	31	—	—
Alexandra Hospital for Hip Disease	144	101	23	12	13	49	—	2,500	—
Banstead Surgical Home	38	182	59	75	—	19	—	—	—
Barnet Home Hospital	38	51	20	13	4	—	1	—	—
Belgrave Hospital for Children	195	250	63	108	8	14	34	13,181	200
Cheyne for Incurable „	96	70	4	5	13	50	5	—	—
East Lond Hosp for „	652	1,541	505	548	316	88	274	81,208	6,694
Evelina Hosp for Sick „	388	1,060	838		107	36	178	38,024	6,312
Home for Incurable „	77	84	—	—	—	29	3	—	—
Home for Sick „	125	204	—	—	112	37	7	8,503	—
Hospital for Sick „	910	1,690	553	740	154	151	258	78,703	—
North East. Hosp for „	335	828	101	527	60	51	119	62,931	3,035
Paddington green for „	268	574	469		79	39	66	43,856	723
St. Mary's for „	211	700	53	515	31	23	92	59,244	13,096
St Monica's for „	101	—	—	—	—	—	—	—	—
Victoria Hospital for „	575	560	136	207	453	34	47	48,390	550
Victoria Home, Margate	24	76	20	7	—	36	3	—	—
"The Vine"	38	55	3	16	6	28	2	—	—
British Lying in Hospital	33	354	354	—	3	18	—	—	—
City of London Lying in Hospital	48	599	—	598	6	25	1	—	—
Clapham Maternity	29	421	—	421	—	16	1	8,630	—
East end Mothers' Home	81	248	—	246	—	14	1	2,800	—
General Lying in	38	500	—	—	23	—	1	10,722	—
Queen Charlotte's Lying in	335	1,183	—	1,175	138	—	8	6,797	—
Chelsea Hospital for Women	364	673	609		166	44	11	9,539	—
Hospital for Women	240	738	176	474	67	34	16	20,850	—
Grosvenor Hosp for Women and Children	105	188	183	—	—	13	5	12,921	—
New Hospital for Women	263	604	—	—	—	87	23	33,032	—
Royal Hosp for Children and Women	216	583	509		20	40	74	40,943	6
Samaritan Free	383	471	106}	361	—	27	17	19,868	
Cancer	575	795	600		15	92	120	13,038	—
London Fever	671	749	—	65	—	93	6	—	—
Gordon for Fistula	29	289	22	26	—	—	1	4,165	—
St Mark's „	—	451	64	353	—	28	4	5,212	—
National for Diseases of Heart, &c.	77	—	—	—	—	—	—	—	—
Female Lock	240	627	517		3	110	4	2,120	—
Hospital for Epilepsy, &c	63	46	—	—	2	—	—	10,169	—
National for the Paralysed, &c.	Deferred	895	340	190	105	197	54	36,641	—
West-End for Nervous System	115	360	260	55	—	43	2	39,218	—
Central London Ophthalmic	57	338	336		—	17	2	12,376	691
Royal Eye	172	654	603		—	20	2	54,507	—
Royal London Ophthalmic	575	1,871	—	—	9	44	—	99,821	—
Royal Westminster „	115	676	676		3	13	—	27,956	—
Western „	38	156	85	71	3	—	—	29,951	—
City Orthopædic	115	—	—	—	—	—	—	—	—
National „	105	211	158		—	52	1	3,300	—
Royal „	96	202	177	27	12	46	1	3,928	—
Royal Sea Bathing Infirmary	288	632	406	20	—	108	7	312	—
St John's Hospital for Diseases of Skin	77	242	241		—	42	1	35,888	—
Hospital for Diseases of Skin	—	—	—	—	—	—	—	—	—
St. Peter's for Stone	77	548	—	497	—	16	20	40,725	—
Central London Throat and Ear	84	240	84	190	4	6	6	53,041	—
London Throat	34	689	15	665	—	5	3	14,781	—
Metropolitan Ear and Nose	10	133	—	—	—	—	—	8,000	—
Royal Ear	10	240	240		—	—	—	7,490	—
The Dental	115	—	—	—	—	—	—	69,176	—
National Dental	48	—	—	—	—	—	—	23,535	—
	£13,527	30,260	5,432	9,108	1,975	2,603	1,863	1,378,447	31,857
Estimated to supply omissions	—	380	5,037	6,372	424	121	20	39,465	3,847
Total	£13,527	30,640	10,469	15,48	2,399	2,724	1,883	1,417,912	35,704

Royal General Dispensary.
Royal Maternity Charity
St. Marylebone Provident Dispensary.
St. Marylebone General Dispensary.
St. Pancras and Northern Dispensary.
Surrey Dispensary.
St. George's, Hanover-square, Dispensary.
Stamford-hill Dispensary.
London Diocese and Deaconess' Institution.
Evangelical Protestant Institution.
Establishment for Gentlewomen.
Infirmary for Epilepsy and Paralysis.
Royal Infirmary for Women and Children.
St. Mary Magdalen Convalescent Home.

Mrs. Gladstone's Convalescent Home.
Guy's Hospital Samaritan Fund.
Westbourne Provident Dispensary.
Metropolitan Convalescent.
Woolwich Dispensary.

If we compare this list wit[illegible] received awards last year we [illegible] long, for nearly 200 hospital [illegible] annually assisted by the Metro[illegible] This shows that the people of London have done a good deal to meet the stress continually thrown upon them by the increasing number of poor persons within their gates. Most of the new institutions are either special hospitals or charitable institutions auxiliary to hospital work, but in some degree or other all help to alleviate the misery of the sick poor. And that all are deserving of financial support may be taken for granted, for one of the great claims of the Metropolitan Hospital Sunday Fund to our consideration is that it represents order in our medical charities. It sifts the genuine charities from the imitation charities and has strong claims to support as an economic agency. While at present there is no great chance, in spite of considerable discussion of the subject, that such a Central Hospital Board as was once advocated by a Special Committee of the House of Lords will be created, the Council of the Metropolitan Hospital Sunday Fund have been in a position to accomplish much by way of suggestion and criticism to advance the interests of coöperation among the various charities. They have exercised a gentle but most salutary supervision over hospital expenditure, and by comparison and scrutiny have enforced the admirable doctrine that every pound of revenue should be represented by its equivalent in the form of service or of necessaries supplied to the objects of the charitable institution. In this way they have accomplished, and are [illegible] task that no private benefactor, however [illegible] abuse, could attempt. They speak with [illegible] numbers and are free from suspicion of [illegible] before the public, feeling generally well disposed towards the hospitals of London, cannot place their contributions in better hands. By delegating to the Metropolitan Hospital Sunday Fund the task of distribution they can avail themselves of a discretion perfected by collective knowledge to which no individual among them could hope to attain. With regard to the work of the Metropolitan Hospital Sunday Fund as an economic agency we are able to speak with particular clearness. We issue every year questions to the hospital authorities as to the number of in-patients admitted, the number discharged, the number relieved, the number cured, the number sent to convalescent homes, the number of individual out-patients seen, and the number of cases treated upon emergency. These questions have always been most fully and promptly answered by the hospital authorities, and from the statistical information thus obtained the various tables are prepared which will be found [illegible] seen [illegible] of [illegible] discrepancy would lead to further investigation. In this way

TABLE III.—COTTAGE HOSPITALS AND CONVALESCENT HOMES.

Name of hospital.	Hospital Sunday Fund award.	In patients.	Relieved.	Cured.	Convalescent homes	Remaining under treatment.	Died.	Out-patients' visits	Accidents and emergencies
	£								
Metropolitan Convalescent	601	4,199	1,327	2,761	—	104	7	—	—
Bexhill „	135	1,948	559	1,872	—	59	3	—	—
All Saints „	333	3,485	1,354	2,014	—	111	5	—	—
Ascot Priory „	67	—	—	—	—	—	—	—	—
Charing Cross Hospital Convalescent	67	339	—	—	—	—	—	—	—
Chelsea Hospital for Women Convalescent	43	276	—	—	—	—	—	—	—
Hahnemann Convalescent	24	199	166	13	—	82	—	4,971	—
Hanwell „	27	181	182	—	—	15	—	—	—
Herbert „	24	300	167	86	—	27	—	—	—
Herne Bay [illegible] Convalescent	34	350	—	—	—	—	—	—	—
[illegible]	40	—	—	—	—	—	—	—	—
[illegible]	10	203	—	—	—	—	—	—	—
[illegible] „	59	320	78	240	—	9	2	—	—
[illegible] „	67	874	—	—	—	—	—	—	—
London and Brighton Female Convalescent	10	2,271	—	—	—	50	1	—	—
Mary Wardell Convalescent	105	165	—	—	—	—	—	—	—
Morley House „	177	1,075	1,074	—	—	—	1	—	—
Police Seaside Home	48	607	—	—	—	—	—	—	—
St. Andrew's (Clewer) Convalescent	144	—	—	—	—	—	—	—	—
Do (Folkestone) „	220	2,126	2,121		—	56	2	—	—
St John's Home for Convalescent Children	90	372	—	—	—	80	—	—	—
St. Joseph's Convalescent	48	—	—	—	—	—	—	—	—
St. Leonards-on-Sea „	98	714	162	493	—	58	1	—	—
St. Mary's „	17	103	—	—	—	7	—	—	—
St. Michael's „	83	295	—	—	—	—	1	—	—
Seaside „	93	—	—	—	—	—	—	—	—
Warley „	11	70	—	—	—	—	—	—	—
Friendly Societies „	10	421	—	—	—	—	—	—	—
[illegible]	10	—	—	—	—	—	—	—	—
[illegible]	431	210	—	—	—	—	—	—	—
[illegible]pital	72	156	31	99	2	18	4	8,204	85
[illegible]	58	863	30	276	18	22	26	—	100
[illegible]	88	—	—	—	—	—	—	—	—
Enfield „	31	182	14	148	—	11	6	—	21
Epsom and Ewell „	53	158	20	181	—	11	7	—	16
Hounslow „	58	111	13	70	11	5	9	—	3
Livingstone „	32	116	24	66	—	7	9	—	196
Mildmay „	68	141	12	112	—	9	8	—	46
Reigate and Redhill „	68	181	21	84	11	23	18	—	—
Sidcup „	72	193	40	130	6	15	—	—	38
Tilbury (Passmore Edwards) „	38	187	27	94	1	5	4	665	22
Willesden „	38	74	7	62	—	3	12	1,450	—
Wimbledon „	38	225	26	164	8	17	24	—	50
Establishment for Gentlewomen	83	186	92	98	—	10	6	—	84
St. Saviour's Hospital and Nursing Home	105	164	10	145	—	4	5	—	—
National Sanatorium for Consumption	115	111	42	60	—	18	5	—	—
Invalid Asylum	86	279	—	—	—	59	6	—	—
Firs Home	58	212	49	136	10	14	8	—	—
St. Catherine's Home	19	62	22	—	—	17	13	—	—
Friedenheim Home for the Dying	20	80	21	—	—	12	4	—	—
Oxygen Home	240	—	—	—	—	—	—	—	—
[illegible]	83	63	13	65	—	14	1	—	—
	£4,361	23,050	5,499	8,909	68	803	193	10,280	570
Estimated to supply omissions	—	3,181	4,369	6,629	—	307	147	3,836	44
Total	£4,361	26,531	9,868	15,538	68	1,110	340	14,116	614

we arrive at the position of being able to speak with knowledge when we say that the Metropolitan Hospital Sunday Fund represents order in the distribution of charity.

We mention this because at the present time there is some doubt in the public mind as to which are the proper hospitals to support. The public are safe in following the lead of the Metropolitan Hospital Sunday Fund and of the Prince of Wales's Hospital Fund for London, the governing bodies of which make careful investigation into the administration of every single charity before recommending it for award. It is certain that many subscribers have ceased to support institutions which they thought did not sufficiently discriminate between the deserving poor and the designing well-to-do. Again, there have of recent years been disputes with regard to the management of hospitals which have been the cause of considerable apprehension among the public. There is an inquiry now going on into the merits of a quarrel between the medical staff and the lay administration of one admirable institution. The public may well feel that there is something wanting in the management of an institution where so bitter a quarrel can have raged for many years, and the feeling of mistrust that is thus engendered reacts to the disadvantage of other institutions where proper confidence bestowed upon the medical officers results in order and harmony. There is another factor which may damage the incomes of hospitals, though only to an infinitesimal extent, by increasing the mistrust engendered by faults of management. We refer to the abuse that is freely showered upon hospitals by certain cheap newspapers and certain self-advertising cranks. In the long run probably no harm is done to the institutions by either the scurrilous reporter or the mendacious anti-vivisectionist, but temporarily the hospital that is attacked may suffer. Its funds may be affected, when the self-constituted champions of the rights of the sick poor will have the melancholy satisfaction of knowing that they have added to the percentage of deaths due to lack of hospital treatment. Each of these things is new and helps to damage the hospitals of the metropolis. When we say to ourselves with some pride sixteen years ago there were only a hundred hospitals or so to be helped, and now there are two hundred, we should also realize that the hundred were helped in a less grudging spirit than the two hundred are now. We beg our readers to use their best endeavours to refute the silly charges of callousness and brutality that are brought by wrong-headed accusers against our noblest charities. No harm has been done as yet by these persons, but the medical mind perceives the absurdity of the attacks so clearly that it is apt to think that the public will also consider the matter beneath attention. The public may believe that if there were any substratum of truth in the stories that have been recently circulated with the set purpose of damaging the revenues of the hospitals we should inform them of it, however unpalatable that duty might be to us. And the public can subscribe with a free hand to the Metropolitan Hospital Sunday Fund and the Prince of Wales's Hospital Fund for London with the absolute assurance that in so doing their gifts will be properly meted out to deserving charities in equitable proportion.

The Costliness of the Modern Hospital.

It would be singular as well as singularly unfair if the hospitals of London at the beginning of the twentieth century should lose the support and confidence of the public for whose good they have been founded. The hospital of to-day is a very different institution to the hospital of 100 years ago, and also to the hospital of 16 years ago. Its value to the community is incalculably greater, while its cost of maintenance is also very much higher. One hundred years ago the hospitals of London were not the centres of medical thought, medical progress, and medical education that they are now. Undoubtedly they did an enormous amount of good, but their value was much impaired by the methods of administration of the day. Neither the honorary appointments nor the resident appointments were held by gentlemen who owed their positions on the staffs to pure merit. Many excellent surgeons and excellent physicians, in fact the leaders of nineteenth century medicine, were upon those staffs, but there were others who had an equal share in the treatment of the sick who were not dowered in a similarly fortunate manner with scientific skill and insight. As a consequence the patients in the hospital were not so absolutely certain as they are now of receiving treatment which is truly representative of the high-water mark of medicine. Again, the nursing in the hospitals in the days when Abernethy and Cooper flourished was not what nowadays would be considered nursing at all. Surgeons were attended by their own assistants and dressers, whose work done under their master's eye was as a rule competent and sometimes excellent, but the women upon whom the ordinary ministrations to the patients devolved were for the most part devoid of training. All the culinary arrangements of the hospitals 100 years ago were of the crudest, and the diet was so little regarded as an adjunct to treatment that hawkers were permitted to enter the wards and sell delicacies to the patients. It is not within our scope here to describe how these various abuses disappeared. Scandalous mismanagement gave way largely to the fierce searchlight thrown by The Lancet upon the domestic affairs of some of the most famous institutions in the kingdom. The wider knowledge of public health made it obvious that the environment of the patient, the ventilation of the wards, the cooking of food, and the ministration of nurses were almost as important as the direct diagnosis of his condition. Then, and so much more recently as to be almost coincident with the foundation of the Metropolitan Hospital Sunday Fund, came antiseptic surgery. Remember the necessities immediately entailed in the matter of reconstruction of operating theatres, the re-stocking of instrument cases, in short, the reorganization of the surgical side of the hospital. Hard on the heels of antiseptic surgery came the developments of physiology and bacteriology, making the study of the natural history of disease an integral part not only of medical education among the students but of medical practice among the staff and routine among the nurses.

These words suffice to roughly indicate why the cost of maintenance of the big general hospitals of London has increased so enormously. In the meantime, what of their incomes? It would be thought that as they did more work, as they passed out of their wards a higher percentage and a steadily rising higher percentage each year of convalescents, they would meet with wider recognition from the public. They have not done so, while the public for which they cater has increased out of all proportion to the size of the subscriptions to the institutions Attempts have been made to show that money subscribed for the needs of the sick has in certain hospitals been perverted to the use of lecturers and students, feverish in the cause of experimental science—as though it was only the cost of medical education that had risen with the development of science and not the cost of medical treatment Everyone who is really cognizant of what the administration of a big London hospital means knows that all the funds received, whether the money is spent upon buildings or food, upon salaries or drugs, upon instruments, or even upon rates, are devoted to the welfare of the patients. Rates must be settled lest the civil authorities take resentful action; medical students must be trained, or who will take charge of the sick of the future? Clerks must be paid, drugs must be purchased. In no large hospital in London is the expenditure regulated by anything else than the honest endeavour to get as much good out of the money as possible for the sick poor; and if some of the smaller hospitals have not always been so disinterested in their origins or careers, we may rest assured that the fact is well known to the distributing bodies of the Metropolitan Hospital Sunday Fund and the Prince of Wales's Hospital Fund for London, and that the institutions in question have their reward.

The Incidence of Taxation following the War

The particular feature of the first collection in behalf of the Metropolitan Hospital Sunday Fund made in the new century is that it has to be made in the teeth of heavy taxation laid upon the country to meet the enormous cost of a protracted war. The incidence of taxation does not as a rule influence the receipts of hospitals much, and we may hope that it will not do so during those years through which the Government of the country may think it necessary to maintain the war tax Undoubtedly, a big income-tax weighs heavily upon a very large class of citizens, and just that class which, in London, might well be expected to lend substantial support to the finances of hospitals. We refer to persons having incomes ranging from £500 to £1500 per annum. These are the persons who, while the income-tax is maintained at its present figure, may, in their anxiety to curtail their expenditure, cut off their subscriptions to charity. They are, many of them, professional men and well-paid employés, and to a great extent their income is dependent upon their expenditure. If they paid less rent they would receive lower fees;

if they lived at a greater distance from their work they would not be such valuable servants. Their appearance of com- [illegible] for they are only stewards of [illegible] it with [illegible] to them, [illegible] so small. But we trust that the middle-classes will continue to support the Fund which, of all charities in London, does the most for [illegible] will when their [illegible] side as well they [illegible] withhold as fr[illegible] subscriptions from the hospitals, either direct contributions to particular institutions or indirect contributions through the medium of the Metropolitan Hospital Sunday Fund, because the South African war has brought expenses in its train is to make the poor suffer for the cause of Imperial expansion, which they have only endorsed to the same degree as it has been endorsed by their social superiors. We trust that the vicarious patriotism which pays the exactions of a protracted war by cutting off subscriptions to charities will find no place among our readers. For the war should furnish the most convincing reason imaginable for increasing our individual efforts to place the hospitals of the metropolis in an efficient condition. It has brought in its train much misery. The people of the country have been open-handed in their attempts to avert the inevitable concomitants of war; praiseworthy efforts to mitigate the lot of those whose fathers, husbands, and sons are fighting, or perchance have fallen, on the veldt have been organised in every direction All such eleemosynary work is tributary to hospital work, for the sequel of hunger is sickness, and the bourne of sickness is the hospital. But in spite of the splendid and devoted labour of many of the most highly-placed persons in the land there must be much misery consequent upon the prolonged absence from home of so many thousands of our compatriots. There should be no wards closed in the metropolitan hospitals while there is a chance of anyone dependent upon a soldier for bread requiring a sick bed Alas, some of the largest and most important of our general hospitals are compelled to cripple their efficiency, for to attempt to accommodate the number of sick which should find shelter in their walls would simply mean bankruptcy. This should not be.

Between the well-to-do and the genuine poor, who are, under all circumstances, proper subjects for hospital treatment, there comes an enormously large class who might be expected to increase their subscriptions to the Metropolitan Hospital Fund or other charities in recognition of the fact that the cost of the war has not fallen quite so heavily upon them as it has upon the class that is in a sense much richer than they are Those upon whom the income-tax does not fall are obviously poorer than those who have to pay it, but they are a class for whom the State has of recent years, and quite rightly, strained every nerve, and a class who have become comparatively better off because of their freedom from the taxation to which those richer than themselves are subjected The earners of good wages in good employ have been looked to by each of the great political parties alike for support, and have received favours from each. The Education Acts, the Workmen's Compensation Act, the Employers' Liability Act, the Friendly Societies Acts, and the legal recognition of trade unions have raised the operative of Great Britain to a position which he has earned by his sterling qualities and which no other European country has been able to grant him. In times of national trouble—and the South African War is a national trouble—he may be expected to remember this And he cannot show his consciousness of having received fair treatment from his fellow men better than by supporting, to the best of his ability, charities of such a truly national character as the voluntary hospitals of London. If every pound that is lost from the richer class is made up to the hospitals by the receipt of twenty shillings from the poorer the hospitals will not only be no losers but, paradoxical though it may seem, they will be gainers For man is an imitative animal, and twenty new subscribers of a shilling afford twenty examples who may well be followed, and a certain proportion of whom will be followed And it should be remembered that the class of which we are now speaking are largely benefited by hospitals. For minor ills they may employ their private medical man, they belong to clubs—many of

TABLE IV.—DISPENSARIES.

Name of dispensary.	Hospital Sunday Fund award.	Out-patients' visits.
Battersea Provident	£31	130,000
Bloomsbury "	12	—
Brixton, &c.	40	16,606
Brompton Provident	21	1,815
Camberwell "	77	93,400
Camden "	12	9,563
Chelsea, Brompton, and Belgrave Provident	38	—
Chelsea Provident	12	3,336
Child's Hill "	10	7,850
City	115	24,411
[illegible]	24	84,126
[illegible]	26	12,671
[illegible]	14	—
[illegible]	31	17,123
East Dulwich Provident	29	8,977
Farringdon General	42	—
Finsbury	61	34,431
Forest Hill	20	7,374
Greenwich Provident	22	13,995
Hackney "	11	7,940
Hampstead "	38	—
Holloway and North Islington	48	27,757
Islington	43	40,950
Kentish town Provident	10	4,415
Kensington	58	13,618
Kilburn, Maida vale, and St. John's wood	30	8,749
Kilburn Provident Medical Institution	29	—
London	10	—
London Medical Mission	91	23,493
Margaret-street Infirmary for Consumption	—	—
Metropolitan	41	83,945
Notting hill	9	3,959
Paddington Provident	34	11,498
Pimlico "	—	—
Portland town "	16	3,282
Public	38	13,206
Queen Adelaide's	17	15,963
Royal General	21	11,518
Royal Pimlico Provident	60	55,034
Royal South London	38	17,092
St. George's and St James's	46	8,213
St. George's (Hanover square) Provident	20	2,605
St. John's wood and Portland town "	29	27,695
St. Marylebone General	34	14,931
St. Pancras and Northern	30	4,357
South Lambeth, Stockwell, & North Brixton	43	11,067
Stamford hill, Stoke Newington, &c.	51	41,011
Tower Hamlets	36	—
Walworth Provident	11	6,335
Wandsworth common Provident	8	4,552
Westbourne Provident	12	18,008
Western	56	17,970
Western General	120	23,402
Westminster General	31	30,455
Whitechapel Provident	19	21,233
Woolwich "	11	4,091
	£1,930	908,436
Estimated to supply omissions	—	120,015
Total	£1,930	1,122,451

SUMMARY OF TABLES.

—	Hospital Sunday Fund award.	In patients.	Relieved.	Cured.	Con valescent homes.	Remaining under treatment	Died.	Out-patients' visits.	Accidents and emergencies
General Hospitals	£26,675	66,574	23,663	30,185	7,058	4,342	6,165	2,172,185	314,099
Special Hospitals	13,527	30,640	10,469	15,489	2,899	2,721	1,883	1,417,012	35,701
Cottage Hospitals and Convalescent Homes	4,361	26,831	9,869	15,528	63	1,042	340	14,116	614
Dispensaries	1,930	—	—	—	—	—	—	1,122,451	—
Total	£46,493	124,045	44,006	61,203	10,125	8,105	8,388	4,726,614	350,414

them whether their scale of pay warrants their obtaining medical assistance upon cooperative terms or not—and receive from the club medical officer attention in what may be termed the routine diseases that flesh is heir to; but when their case becomes really serious, when a bad accident prostrates them, when a fever requiring lengthened treatment and adequate nursing attacks them, or when a major operation has to be performed upon them to save life or render the damaged system a sound one, then they must have recourse to hospitals.

The most marked feature of this year's Hospital Sunday collection is that it follows closely upon a Budget which must make a severe demand upon slender purses. We trust that no one will allow the fact that he has to pay his share of the bill for the South African war to sway him in making a smaller contribution than is his wont to the Metropolitan Hospital Sunday Fund. The money was never more urgently wanted by the hospitals than now, when the country is suffering from the effects of the war.

ALL MUST HELP.

Such is our appeal on behalf of the Metropolitan Hospital Sunday Fund for the first year of the new century. The population of London is increasing by leaps and bounds, which every year makes the metropolis more distinctly the centre to which the empire resorts, so that the institutions of London are regarded as serving the necessities of a world rather than of a city. But while the population of London becomes larger the income of the Metropolitan Hospital Sunday Fund, as far as it is drawn from the people rather than from individual donors of big sums, remains stationary. Ten years ago the inhabitants of London paid a sum equivalent to 2½*d.* per head as their subscription to the Fund, and since then the capitation contribution has decreased, although the number of reputable institutions to be supported is much larger, while the cost of hospital administration is heavier in every respect. These facts we have stated perhaps somewhat boldly, but we have purposely directed our appeal this year rather towards the reason than towards the sentiment of our readers. We have taken it for granted that no words are necessary to bring home to our readers the terrible misery which sickness means to the poor man and poor woman. The incapacity of the bread-winner to earn his wages at once places the family of the poor man within a measurable distance of starvation. That little distance would be immediately crossed if the hospital did not open its doors to the sufferer. And now a time has arrived when many beds are closed and many of these unfortunate people have to be refused the shelter which means so much to them and so much, perhaps as much, to their families. It is the lives of the poor for which we are pleading.

The rich should give out of their superfluity, and not only because they are rich, but because they are themselves directly benefited by the hospitals. For without our hospitals the benefits which the rich derive from skilled medical attendance could not be theirs.

The poor should give out of their poverty, and they need no reminding as to what the hospital means to them when they are sick. But they need much reminding as to the value of little gifts, or the Metropolitan Hospital Sunday Fund would not stand at the annual figure of £40,000. If there are half a million persons in London to whom an annual subscription of 1*d.* is impossible there must be at least 2,000,000 others who are poor in that they are living on their wages, who could still afford an annual gift of 1*s.* If they gave that shilling each year the hospitals would soon be placed well on their way to freedom from debt.

To the benevolent man no scheme can commend itself as more worthy of his assistance than a fund to benefit his suffering and poorer brethren.

In the eyes of the practical man no less than in those of the benevolent the Fund should, nay, must, find favour, for it represents order in the distribution of charity.

To all social grades, to all creeds, and to all casts of thought, the Metropolitan Hospital Sunday Fund must appear as a noble charity, splendidly directed, economically managed, and equitably administered. That it may meet with support worthy of its merits is our most earnest hope.

THE METROPOLITAN HOSPITAL SUNDAY FUND.

Amounts received and disbursed in the year 1900.

Dr.

RECEIPTS *for the year ending 31st October, 1900.*

1900.	£	s.	d.	£	s.	d.
To Balance at Bank of England, 1st Nov., 1899	717	9	7			
,, Balance in hands of Secretary	5	6	4	722	15	11
,, Collections made at Sundry Places of Worship	35,856	8	11			
,, Collections at Schools	26	6	1			
,, Donations	14,657	9	2			
,, Donations for Surgical Appliances ..	13	11	0			
,, Legacy	100	0	0			
,, Interest on Deposit	92	19	0			
,, Dividend on £45,346 1*s.* 3*d.* 2¾ Consols, per Executors to the Will of W. A. Guesdon, deceased	1,247	0	4	51,993	14	6
				£52,716	10	5

Cr.

PAYMENTS *for the year ending 31st October, 1900*

1900.	£	s.	d.	£	s.	d.
By Awards to 132 Hospitals	43,754	4	10			
,, Awards to 8 Institutions	690	0	0			
,, Awards to 54 Dispensaries	1,917	2	6			
,, Surgical Appliances	2,506	5	2	48,867	12	6
,, Rent	170	0	0			
,, Fuel, Gas, and Office Cleaning	22	15	2			
,, Furniture and Repairs	1	17	6			
,, Printing and Stationary	244	8	11			
,, Stamps and Postage	88	15	3			
,, Advertisements	251	1	0			
,, Salaries and Gratuities	932	8	0			
,, Sundries	5	5	3	1,716	11	1
,, Special Expenses—Special Church and Chapel Appeals .				55	10	2
,, Balance at Bank of England, 31st Oct., 1900	2,065	8	8			
,, Balance in hands of secretary	11	8	0	2,076	16	8
				£52,716	10	5

Audited and found correct, this 27th day of November, 1900.

(Signed) W. H. PANNELL & Co, *Chartered Accountants,* 13, Basinghall street, E.C.

*** In the preparation of the voluminous statistics of hospital work which have been here digested and exhibited in collected form (and which have been specially supplied to us in response to our applications, and are quite independent of any returns made to the Metropolitan Hospital Sunday Fund Committee) we have been greatly indebted to a large number of secretaries and other officers of the various medical charities of the metropolis. To them we desire, as on many previous occasions, to tender our sincere thanks.—ED. L.

Printed and Published by the REGISTERED PROPRIETORS of THE LANCET, at 423, Strand, W.C., and Nos. 1 and 2, Bedford-street, Strand, adjoining

EXPERIMENTS ON LIVING ANIMALS.

THE inspector's report for the year 1900 has just been issued and is on the same lines as those of the last decade or so The total number of experiments of all kinds appear to have been 10,839, of which 8954 were inoculations or similar trivial proceedings performed without anæsthetics. The fact that so many experiments are performed "without anæsthetics" is made the most of by platform humanitarians as evidence of unheard of cruelty, but a reference to the inspector's report will show that, whether or not any of the inoculated animals suffer, pain is entirely a matter of speculation. The platform humanitarian does not, as a rule, give himself the trouble to go and see inoculated animals for himself but is content to trumpet inoculations as an atrocity to which vaccination is in no sense comparable. Readers of THE LANCET will know that it is seldom possible to say whether or not an animal has been subjected to inoculation, and that when the inoculated and non inoculated are kept in the same cage it is, as a rule, only the label which distinguishes them. Certain London hospitals have recently been accused of using charitable funds for the purpose of vivisection, and if, for the sake of argument, we accept these statements we are able to judge, by the tables in this report, of the amount of money which has been spent upon living animals by these institutions At the medical school attached to one of the hospitals which has been gibbetted by the platform humanitarian we find that there are two licensees who performed experiments in 1900 One of these gentlemen performed three experiments under anæsthetics for lecture room purposes The animal was anæsthetised and there was therefore no cruelty. The expense of these experiments could not have been more than 10*s* or 12*s*. and the money certainly came out of the licensee's pocket or possibly that of the treasurer of the school The other gentleman used 108 animals for inoculations or similar proceedings These animals were not horses, dogs, cats, asses, or mules, and we are probably correct in assuming that they were rodents (rabbits, guinea-pigs, rats, and mice). These animals cannot have cost more than, perhaps, a £10 note.

At another institution which has been selected for condemnation there is one licensee who performed 158 experiments, of which 94 are definitely stated to have been inoculations for purposes of diagnosis, and, assuming that the animals used were rodents, we may take the expense at less than £20 The animals used for the whole of the experiments tabulated at all the institutions in the country can scarcely have cost as much as £1000, which is very much less than the sum mentioned as spent upon vivisection by four of the London hospitals.

We will not enter into the question as to whether the cost of any of the animals used has been defrayed by funds supplied by the public, but we are of opinion that all would admit that the use of animals for diagnosis is a necessary prelude to medical treatment and that the cost may legitimately be defrayed from funds contributed for the benefit of the sick When the Vivisection Act was passed in 1876 it was regarded as an extension of the Cruelty to Animals Act to scientific research, and there can be no doubt that by those who framed it inoculation was not contemplated and that the phrase "calculated to give pain" was intended to be interpreted in a common-sense way. Nobody objects to the control of experiments which involve serious surgical operations, but the inclusion among "vivisections" of inoculations made for purposes of diagnosis or research has been a calamity for British medicine. If a modern practitioner in a remote village were to inoculate a guinea pig with the pus from a doubtful case of plague for the sake of accurate diagnosis it is very unlikely that any jury would convict him of cruelty to animals The practice of inoculating a donkey for the purpose of diagnosing glanders existed for years before the passing of the Act and was never regarded as an act of cruelty punishable by law.

The inspector in his report says (p 5):—

> There is, however, strong (*sic*) reason for holding that the gradual development of tuberculosis and the poisoning by diphtheria toxin resulting from such inoculations, although they may not be accompanied by acute suffering, are conditions which bring these proceedings within the category of "experiments calculated to give pain."

The inspector does not furnish any facts which would serve as evidence in a court of law that an inoculated animal was cruelly suffering. Most of the infective toxins dim the sensibilities as much as do anæsthetics The First Lord of the Treasury in a recent address told his audience that English medicine was not in the forefront and asked what was the cause of it. The reason for this backwardness is furnished by this report, which seems to show that his colleague at the Home Office is ready to strain an Act of Parliament for the sake of worrying honest investigators. We are very much in want of a Minister who will look into this matter for himself and will not yield to the clamour of those who raise the cheap cry of humanity and throw mud at the leaders of a noble profession The extent to which licensees are worried when under the Act is shown by the closing paragraphs of the report which constitute a sort of small-beer chronicle of offences which are scarcely sufficiently heinous to render them worthy of being presented to Parliament. We will give one instance.

The inspector says —

> I have had to report the following irregularities 1 A licensee holding the certificate dispensing with the use of anæsthetics performed some inoculations under anæsthetics, allowing the animals to recover therefrom The animals suffered no pain. This is an irregularity, because the certificate (B) required by the Act when an anæsthetic is used, and the animal allowed to recover therefrom, is different from the certificate (A.) required when an experiment is performed entirely without anæsthetics

We do not blame the inspector for reporting this, even assuming that he is a free agent as to what shall and what shall not appear in his report. It is interesting as showing what an Act of Parliament means. This offence, if we remember right, has been reported previously and the humanitarians who are strangely ignorant of law when it suits their convenience, pointed to this strict administration of the law as evidence that the use of anæsthetics was positively disallowed by the Home Office ogres whose minds were said to be set on cruelty.

ROYAL MEDICAL BENEVOLENT COLLEGE, EPSOM.

A MEETING of the Governors of the Royal Medical Benevolent College, Epsom, was held on May 31st under the chairmanship of the treasurer, Dr. Constantine Holman, at 37, Soho square, London, W. The report of the council was read by Mr. J. B Lamb, the secretary, and it stated that His Majesty the King had been pleased to become the patron of the college. The late Mr. John Frederick France, a former member of the council, had left half of the residue of his estate, amounting to £10,000, to the pension fund of the college for the benefit of aged and necessitous members of the medical profession to be chosen by the council. From various reasons the year 1900 ended with a debt of £2500 There were on the college books at that time nine Pugh pensioners, 46 ordinary pensioners, two Morgan annuitants, and two Da Silva pensioners A festival dinner in aid of the funds for the pensioners and foundation scholars was to be held on July 9th, at which the Earl of Rosebery, the President of the college, had consented to be present The Forest Exhibition was awarded last year to J. E. Freeman. The hospital scholarships were won as follows · St Bartholomew's, C. H. Cross; Charing Cross, L H. Booth; University College (and the Carr Exhibition which goes with it), J. M. O'Meara; St Mary's, W. A. Owen; St Thomas's, D. Wilson; Middlesex, H R. Vivian; Westminster, C J E Bennett; and London, E L. Sandiland. The Jenks Memorial Scholarship was given to A. G. Sworn.

The CHAIRMAN, in moving the adoption of the report, pointed out that if the debt were not paid off the effect would be to cripple the work of the college for some time. He had hoped for some years that it would be possible to capitalise such a sum as £100,000 so that they might do away with the wretched system of begging The institution was called the "Royal Medical Benevolent College" and it was founded to help the medical profession; but it was not purely medical—they wanted to attract within its walls other than medical men because a mixed school was best. The use of the word "benevolent" had brought about in certain minds the idea that the college was a charity school. It was no more a charity school than Winchester or Eton or any other of the great public schools with a foundation. Referring to the letter published in THE LANCET of May 18th, p. 1428, in which "An Old Governor" says that "the recommendation committee, as in many former years, entirely ignores the men," the chairman remarked that he would not take more notice of the letter than to point out that it was only the committee of selection that could possibly know the facts and he had never met with a more painstaking committee: sometimes the lists of candidates were gone over as many as four times and this he had seen himself.

Mr. CHRISTOPHER HEATH asked who was the successful candidate to the last vacancy for St. Anne's as he had never seen any public notice of the election. Upon being informed that the election made was never published Mr. Heath said that he was surprised and then proceeded to remark that he rather sympathised with the writer of the letter in THE LANCET in regard to the widows being looked after while the unfortunate practitioners went to the wall. It seemed rather hard that a man should go on applying for a pension for nine years and then not get it. If he (Mr. Heath) were near the age of 79 years he would under the circumstances of the case consider that he was entitled to some assistance, particularly if he had asked for it so many times as the candidate had. In the list published by the council, concerning which Mr. Heath had no fault to find, he noticed that Mr. George Hodges had received 1286 votes, so that his case could not be a very bad one. He hoped the committee would take the case into consideration next time and see if they could not give Mr. Hodges a pension. Mr. Heath concluded his remarks by assuring the council that he was not complaining in any way, he was only anxious that the claims of the practitioners should not be overlooked.

Mr. S. FELOE, in seconding the motion, defended the action of the committee of selection and said that the claims of the few men would of necessity soon be satisfied because, as the chairman had announced, Mr. France had left £10,000 for that purpose.

After some formal resolutions had been passed a vote of thanks, on the motion of Sir JOSEPH FAYRER, to the chairman was adopted.

The following is a list of the successful and unsuccessful candidates for pensions and foundation scholarships at the election declared at the meeting:—

PENSIONERS.

SUCCESSFUL CANDIDATES.

1.	Eliza F. Chapman	10,238	3.	Ellen Bull	7141
2.	Fanny A. Coleman	8713	4.	Charlotte E. Davies	6616

UNSUCCESSFUL CANDIDATES.

5.	Alice M. Richardson	4770	13.	Lucy E Matthews	388
6.	Mary F. Freshfield	3474	14.	Francis D. Hamilton	333
7.	Ellen L. O Stevens	2193	15.	Margaret M. Sheppard	316
8.	George Hodges	1286	16.	Fanny W. Wilson	315
9.	Charlotte Johnson	1101	17.	Frances Newsam	200
10.	Thomas B. Whitehead	765	18.	William Hopkins	190
11.	Fanny E. Owen	747	19.	Eliezer Williams (deceased)	
12.	Eliza Clarke	572			

FOUNDATION SCHOLARS.

SUCCESSFUL CANDIDATES.

1.	Graham A. L. Anderson	10,939	4.	William Bourne	6644
2.	Clifford A. Mallam	9475	5.	Geoffrey W. Adams	6189
3.	Arthur R. Hemsted	6897	6.	Thomas G M. Clarke	6168
			7.	David A Buchan	5427

UNSUCCESSFUL CANDIDATES.

8.	Cyril J. P. Martin	3539	17.	James L Taylor	787
9.	Gerald K. MacNaught	2424	18.	Wilfred L. Corry	700
10.	John H. Sewart	2303	19	Eric S Monro	642
11.	John A Cowan	1507	20.	Harry P. Snell	555
12.	Harold D. Wilson	1288	21.	Albert H. Fleming	546
13.	Reginald H. Leigh	1081	22	Sydney D. Newton	465
14.	William T. K. Wallington	1080	23.	John A. R. Campbell	390
15	Douglas Hamilton	1048	24.	Edward Cooke	344
16.	Hugh L G. Hughes	872	25	Alan R. W. Paul	287

THE MEDICAL DEFENCE UNION.

THE annual general meeting of the Medical Defence Union was held at the registered offices, 4, Trafalgar-square, London, W.C., on May 31st. The chair was occupied by the President, Dr. W. S. A. GRIFFITH. The number of members present was at the beginning of the meeting about 20, but it increased to over 40.

The report of the council upon the work of the Union during 1900 showed an increased membership amounting to 4604. The number of cases dealt with by the council had increased, but the number taken into court had decreased. The rule of the council was "never compromise an action," as it had been found that when legal proceedings had been taken against a member of the Union and had been defended by the solicitor the case had been carried on up to, and sometimes almost up to, the moment of trial and had then been dropped. It was now recognised that when a member of the Medical Defence Union was to be defended by their solicitor no compromise would be suggested or agreed to but that the case must be run or dropped by the attacking party. Any attempt to blackmail or to extort money by threats was instantly dealt with by the Union with all the resources of the law and in no instance unsuccessfully. In such cases no temporising or weakness must be shown—the attack must be made on the enemy's camp, and such attacks must be sudden and decisive. The only possible source of danger was when the member involved had, through weakness, not reported the matter at once but had attempted to deal with it himself or by friends not versed in the art of active warfare. The most veiled attack on a man's character and professional honour if allowed to pass might become more open and pronounced in time and would be then difficult to "scotch"; if dealt with at once it was easy to destroy or to avert. Many hundreds of cases were brought before the council at the regular monthly meetings, or at the committee, or at the emergency meetings when required. During the course of the year it had been found necessary to revise the standing orders which were somewhat out of date. One of the many sub-committees had recommended that a representation should be made to the General Medical Council to the effect that it was desirable in the interests of the public that registered medical practitioners either individually or collectively by association should not be allowed to issue any document which in any way could be taken by the holder or the public as granting authority to practise or which could be used to cover any practice of medicine, surgery, or midwifery, saving in the case of persons examined by duly appointed examining bodies under the supervision of the General Medical Council. This sub-committee also reported that with regard to the practice of midwifery and diseases of women midwives were supported in their said practice by documents issued by lying-in institutions and societies of medical practitioners. The council of the Royal British Nurses' Association of London had been informed by the Medical Defence Union that the words "qualifying" and "diploma" were objectionable and likely to mislead the public into the belief that the nurses who in the Register were marked as having obtained certificates from the London Obstetrical Society were registered practitioners in medicine or surgery or midwifery. In one case of unqualified practice an absolutely unqualified person was found practising medicine in a country village, giving himself out as possessing better qualifications than the local medical men. He was fined £5 for using registrable titles in signing a certificate of death, but he continued to practise. The Medical Defence Union prosecuted him under the Medical Act and he was again fined, and this had the desired effect of making the offender cease practising. From pages 18 to 31 the report was taken up by a schedule of cases selected from the minute-book which constituted an excellent record of the useful work of the Union. Mr. W. E. Hempson, the solicitor to the Union, contributed a valuable statement of the legal work during the past year. The Lunacy Commissioners had shown an unwonted vigilance in prosecuting medical men for receiving and treating for remuneration patients alleged by the Commissioners to be certifiable. The condition of affairs was under the circumstances somewhat illogical and embarrassing and the risk was not confined to the medical man but would apply equally to the proprietor of an hotel or a boarding-house. Mr. Hempson suggested that the difficulty might be met by an alteration in the law.

The report of the Council for the year 1900 was formally moved by the PRESIDENT and seconded by Mr. S. FELOE. After some discussion, in which Dr. E. D. VINRACE, Dr. WALTER SMITH, and Mr. P. ROSE took part, the motion was carried unanimously.

The accounts as audited by Mr. Hardy were passed on the motion of Mr. M. A. MESSITER after being duly seconded.

Dr. Langley Brown, Mr. J. Roche Lynch, and Mr. M. Hallwright were elected members of council.

The sum of £100 was voted *pro rata* to the provincial members of the council as payment of railway fares when attending council meetings

Mr L Hardy, F C A, was re elected auditor and with the usual vote of thanks to the chairman the proceedings terminated

THE MEDICAL, SURGICAL, AND HYGIENIC EXHIBITION

(Concluded from p 1565)

The exhibition of sanitary appliances was a decided feature this year Leading pottery manufacturers were well represented, their exhibits consisting generally of sanitary fittings designed for use in hospitals and of improved sanitary appliances connected with the bath, lavatory, and water closet The exhibit of Messrs Doulton and Co (Lambeth, London, S E) was made specially attractive and medical men in particular studied the new designs of sanitary fittings with interest Amongst these were a white vitreous enamelled operating table fixed on a centre pedestal and so arranged that it could be moved to any position, a bed pan and urine bottle sink in strong white glazed ware provided with an air tight glass cover and a sterilising steam jet, the whole being worked by means of treadles, a sink for bed pans conveniently shaped and with treadle action for flushing, a strong white glazed ware closet fixed on brackets and clear of the floor, provided with a vulcanised seat and a pottery cistern Besides these an earthenware lavatory was shown with basin and top in one piece for operating rooms and supported on brackets As will be seen, the chief points about these excellent sanitary apparatus were the treadle arrangements for controlling the water supply, leaving the hands quite free, and the fixing of sinks and closets on brackets and quite clear of the floor By giving attention to these points great sanitary advantages are obviously gained Illustrations of similar advances in the construction of sanitary appliances were shown by Messrs G
road, London, S E
sinks, and closets
exhibit comprised also some excellent designs in bath and closet fittings, the former provided with a chair seat, sitz jet, and spray, and the latter with hot and cold shower, wave, douche, needle, and sitz sprays Worthy of mention also are the concealed and combination lavatory appliances and an improved bed pan flusher arranged especially for the disinfection and sterilisation of excreta Pedal action lavatories and cantilever bracket water closets formed the chief examples of sanitary advance at the attractive exhibit of Messrs J Tylor and Sons (2 Newgate street, London, E C) The pedal action is a decided advantage and the pedals being hinged may be lifted clear of the floor for cleaning In the same way the water-closet is supported on galvanised cast iron cantilevers built into the wall so that the space beneath the closet is clear and the floor and fittings may easily be kept scrupulously clean

Disinfectants and means
important section of the
Sons (146 and 147, Houn
illustrated the Equifex steam disinfectant appliances, and at the same stall Pasteur filters were shown working with and without pressure for domestic, travelling, industrial, and technical purposes Messrs Boake, Roberts and Co (Stratford, Essex) illustrated the advantages of liquid sulphur dioxide for fumigation and disinfectant purposes Liquid SO_2 may be obtained in hermetically sealed tins, holding 12 and 20 ounces of the liquid, larger quantities may be obtained in glass and steel bottles and in copper cylinders The exhibit included a fluid preparation of phenol called "lozar" The same preparation may be obtained in the form of powder, which consists of a light wood fibre containing from 5 to 25 per cent of lozar An enormous variety of sanitary preparations were displayed on the stall of the Jeyes' Sanitary Compound Company (54, Cannon street, London, E C), including medical soaps, toilet soaps, disinfectant fluid, and surgical dressings The now well known Kieselguhr filter of the Berkefeld Filter Company (131, Oxford street, London, W) was illustrated in its various applications at the stall of the company Careful investigation has shown that the filter is a germ proof filter, and it has been used for supplying sterilised water of regulated temperature for surgical purposes Izal (Newton Chambers and Co, 331, Gray's inn road, London, W C) is now applied for a variety of purposes It offers the very important advantage of being, comparatively speaking, non poisonous Besides izal soaps, medical izal, lozenges, ointments, &c, izal is also used as an antiseptic for lint, wool, and gauze The Dowsing Radiant Heat and Light treatment was illustrated by the company bearing that name (24, Budge row, Cannon-street, London, E C), the electric illumination serving to attract many of the visitors Messrs Ewart and Son (346, Euston road, London, N W) exhibited a number of geysers of varying size for the instant production of hot or boiling water We are glad to note in connexion with these appliances that an efficient flue pipe is attached provided with a safety socket The only exhibit illustrating induced ventilation was that of Messrs James Keith and Blackman (27, Farringdon avenue, London, E C) Several Blackman fans were electrically driven in various parts of the hall for improving the ventilation. Some attention was given to the exhibition of special clothing Thus, amongst the indiarubber goods of Messrs Anderson, Anderson, and Anderson (37, Queen Victoria street London, E C) were improved operation aprons and sleeves and germ proof clothing for use in infectious cases Close by were interesting specimens of Aertex cellular clothing of the Cellular Clothing Company, Limited (72 and 73, Fore street, London, E C) This cloth is porous and a non conductor of heat All kinds of wearing apparel are made of this material, which is said to be easily washed and unshrinkable Cotton wool underclothing was the special subject of exhibition by the Lahmann Agency (15 Fore street, London, E C) It is described as "reform underclothing," and many important claims are made in favour of this material for underwear

Surgical appliances did not form a very large feature of the exhibition, surgical bandages and similar materials being brought more into prominence than surgical instruments Mr Vincent Wood (Victor House, 4, Albion place, Blackfriars, London, S E), exhibited a great number of bandages for various purposes and elastic hosiery The exhibit included the eureka cellular hygienic bandage and the crêpe velpeau bandage, the latter a rubberless elastic material porous and washable The Sanit
Limited (26, Thavies Inn, Holbo
exhibited many applications of
Wool preparations, as, for example, wood wool sheets for accouchement, wood wool vaccination pads, and wadding and tissue The exhibit included also the handy and convenient patent sling by Hartmann which we have already described in our "New Invention" column The improved instep arch sock for the treatment of flat foot was amongst the interesting appliances shown by Mr Thomas Holland (40, South Audley street, Grosvenor-square London, W) He also exhibited a "bunion splint patent" for restoring the big toe to its natural position It consists of a thin and flexible sole of leather divided at the toe end and fitted with a glove like pocket into which the big toe is inserted It certainly keeps the big toe in position, but the object of this patent would be obviously defeated by wearing badly fitting boots The patent appliances for the lame of the O'Connor Extension Company (2, Bloomsbury street, London, W C) are too well known to need description The exhibit included, besides the O Connor extension boot, a patent surgical boot compensating for a slight shortening of the leg, a boot for flat foot, a toe raising boot, a boot for paralysis, and a boot for talipes varus and valgus The Domen Belts Company (456, Strand, London, W C) exhibited their well known abdominal belts and corsets, both giving support without undue pressure Surgical instruments were well represented in their relation to modern surgery by Messrs Down Brothers (St Thomas's street, London, S E), while Mr W K Stacy (19 Newgate street, London, E C) showed some ingeniously designed nurses' bags and aluminium wallets X ray apparatus in working order was shown by Harry W Cox, Limited (10, 11, and 28, Cursitor street, Chancery lane, London, W C), who have supplied x ray coils and apparatus to the Admiralty and to the War Office for use in South Africa The fact that the winding and insulation of these coils is personally supervised is a guarantee against their breaking down Messrs A Rosenberg and Co (21, Southampton row, Holborn, London, W C)

also take especial care in the manufacture of induction coils for x-ray work. Their new patent portable x-ray outfit is worth attention by those who want such an apparatus for field and professional requirements.

Aerated waters and other beverages were not much in evidence. Messrs. Cooper and Co. (Gloucester-road, South Kensington, London, W.) had an excellent array of their oxycarbonated waters in syphons. We have previously pointed out that the effect of mixing oxygen with a carbonated water is very pleasant—the taste is soft and attractively fresh. The water is distilled and very pure. Medicinal waters are also made with oxycarbonated water—containing, for instance, lithia, fluid magnesia, piperazine, or other drugs. The Dry Wine Co. (104, Great Portland-street, London, W.) exhibited a natural spring table water drawn from springs near Homburg, the water being known as Cambrunnen Table Water. The exhibit also included "Vinzoe" wine—a tonic wine the basis of which is a good dry sherry to which the nutritives of beef are added. Messrs. Stephen Smith and Co. (Malmesbury-road, Bow, London, E.) submitted for inspection Hall's coca wine and Keystone burgundy and Keystone beef wine, each of which has been dealt with in our analytical columns. Messrs. Marshall and Elvy (45, New Oxford-street, London, W.C.) exhibited specimens of an excellent Cognac brandy (Courvoisier's). We have already [illegible] with this spirit (which is guaranteed to be genuine [illegible] in the Analytical Records of THE LANCET. What [illegible] described as a liqueur known as "satinette" is [illegible]ade by this firm. It resembles gin but has a [illegible] flavour and is more mellow. Messrs. George Back [illegible] Co. (13, Devonshire-square, London, E.C.) showed specimens of their diabetes whisky, so called because it is free from excess of acidity, extractives, or saccharine matters.

Publications were well represented. Of a special kind were the medical books, anatomical diagrams, clinical figures, and charts of Messrs. John Bale, Sons, and Danielsson (83, 85, 87, 89, Great Tichfield-street, Oxford-street, London, W.). Messrs. Wodderspoon and Co. (7, Serle-street, Lincoln's Inn, London, W.C.) exhibited a variety of charts—temperature, diet, and four-hour and two-hour charts. Publishers and booksellers were represented at various stalls by the following: Messrs. Rebman, Limited (129, Shaftesbury-avenue, Cambridge-circus, London, W.C.), Messrs. W. B. Saunders and Co. (161, Strand, London, W.C., and Philadelphia), Mr. Henry Kimpton (13, Furnival-street, Holborn, London, E.C.), the Scientific Press, Limited (28 and 29, Southampton-street, Strand, London, W.C.), and the *Medical Times* publications, &c.

We understand that the attendance of visitors at the exhibition this year was not less satisfactory than on previous occasions, amongst those present during the week being a large number of medical men and of the staff of nursing institutions and hospitals.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ELECTION OF MEMBERS OF COUNCIL.

ON Thursday, July 4th, a meeting of the Fellows will be held for the election of three members of Council who retire by rotation. As Sir William Mac Cormac, Bart., K.C.B., K.C.V.O., will be President on the day of election he will retain his seat on the Council for another year.

The following list of the 24 members of the Council gives the date at which each member will retire:—

Retire in 1908: Mr. Alfred Cooper (first elected 1892); Dr. J. Ward Cousins, Royal Portsmouth Hospital (first elected 1895); and Mr. A. Pearce Gould, Middlesex Hospital.

Retire in 1907: Mr. T. R. Jessop, Leeds General Infirmary (first elected 1891); and Mr. H. W. Page, St. Mary's Hospital.

Retire in 1906: Mr. F. Richardson Cross, Bristol Royal Infirmary; Mr. Henry Morris, Junior Vice-President, Middlesex Hospital (first elected 1893); and Mr. John Langton, Senior Vice-President, St. Bartholomew's Hospital (first elected 1890).

Retire in 1905: Mr. H. G. Howse, Guy's Hospital (first elected 1889); Mr. Edmund Owen, St. Mary's Hospital; and Mr. Rickman J. Godlee, University College Hospital.

Retire in 1904: Mr Thomas Bryant, Guy's Hospital (first elected 1880); Mr. T. Pickering Pick, St. George's Hospital (first elected 1888); and Mr. J. Tweedy, University College Hospital (first elected 1892).

Retire in 1903: Mr. A. Willett, St. Bartholomew's Hospital (first elected 1887); Mr. H. T. Butlin, St. Bartholomew's Hospital; and Sir F. Treves, London Hospital.

Retire in 1902: Sir William Mac Cormac, President, St. Thomas's Hospital (first elected 1883); Mr. Reginald Harrison (first elected 1886); Mr. Howard Marsh, St. Bartholomew's Hospital (first elected 1892); and Mr. J. Hardie, Royal Infirmary, Manchester.

Retire in 1901: Mr. N. C. Macnamara, Westminster Hospital (first elected 1885); Mr. A. W. Mayo Robson, Leeds General Infirmary; and Mr. W. Watson Cheyne, King's College Hospital.

Of the three members whose term of office expires this year we believe that only Mr. Mayo Robson and Mr. Watson Cheyne have decided to apply for re-election. Several other Fellows, we understand, are coming forward. Among them are Mr. H. H. Clutton of St. Thomas's Hospital, Mr. Jordan Lloyd of Birmingham, Mr. Clement Lucas of Guy's Hospital, Mr. J. H. Morgan of Charing Cross Hospital, Mr. C. Mansell Moullin of London Hospital, and Mr. Bland-Sutton of Middlesex Hospital. The nomination papers have to reach the College by Monday next, June 10th. At present St. Bartholomew's Hospital has four representatives, Guy's Hospital, St. Mary's Hospital, Middlesex Hospital, and University College Hospital have two representatives each, and the following hospitals have one representative apiece: St. George's, King's, London, St. Thomas's, and Westminster. Two members of the Council are attached to special London hospitals and five are attached to provincial hospitals; Leeds General Infirmary has two representatives, and the Bristol Royal Infirmary, the Manchester Royal Infirmary, and the Royal Portsmouth Hospital have each one.

ANNUAL MEETING OF FELLOWS.

The annual meeting of the Fellows of the College will be held on Thursday, July 4th, at 5.30 P.M., for the consideration of any motions which may be introduced by Fellows. Any motion which it is desired should be brought before the meeting must be signed by the mover and must be received by the secretary not later than June 13th. As no quorum has been present on the last four occasions for which a meeting of Fellows has been called it is to be hoped that such a fate will not befall the coming meeting, and we would urge all Fellows to be present who have at heart the continuance of these meetings. It is desirable also that suitable subjects for discussion should be provided.

It will be remembered that in future the annual report of the Council will be sent to those Fellows and Members only who have specially asked for it. To save the trouble of annual application a list is to be kept of Fellows and Members who desire to receive the report regularly. A form for this purpose has been sent to the Fellows, and it must be filled up and returned if the report is desired.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT the annual meeting of the Fellows held on June 1st a most satisfactory report was presented. The College is entirely free from debt and has increased its investments within the year by the purchase of £3000 stock of the Midland Great Western Railway of Ireland. During the past 12 months many of the Fellows and Licentiates received honours and distinctions for services in the South African campaign. One received the Knight Commandership of the Bath, five the Companionship of the Bath, one the Knight Commandership of St. Michael and St. George, two the Companionship of St. Michael and St. George, and five the Distinguished Service Order, and 13 commissions in the Royal Army Medical Corps were granted without further examination to Licentiates of the College—some of these were the reward for services in the field in the present war. The Arnott medal, intended by the donor to be awarded to the member of the profession—civil, naval, or military—who during the previous three years had the most heroic and distinguished record, was conferred on a Licentiate of the College. There are at present living 10 honorary Fellows, 418 ordinary Fellows, 2791 Licentiates, 9 honorary Diplomates in Public Health, 102 ordinary Diplomates in Public Health, and 496 Licentiates in Dental Surgery.

A meeting was also held on June 3rd to elect the officers for the ensuing year. The following were elected:—President: Mr. Thomas Myles. Vice President: Mr. L. H. Ormsby. Honorary secretary: Sir Charles A. Cameron, C.B. Council: Sir Philip C. Smyly, Mr. H. R. Swanzy, Mr. E. H. Bennett, Mr. W. Stoker, Sir Charles A. Cameron, C.B., Mr. Austin Meldon, D.L., Mr. C. B. Ball, Sir William Thomson, C.B., Mr. J. B. Story, Mr. J. Lentaigne, Mr. Arthur Chance, Mr. R. D. Purefoy, Mr. H. G. Sherlock, Mr. R. Bolton McCausland, Mr. F. Conway Dwyer, Mr. J. S. McArdle, Mr. R. H. Woods, Mr. R. Lane Joynt, and Mr. P. W. Maxwell.

THE SOUTH AFRICAN CIVIL SURGEONS' DINNER.

ON the evening of June 5th Sir WILLIAM MACCORMAC, Bart., K.C.B., K.C.V.O., presided at a large gathering of civilian medical men who, having returned from service in the war in South Africa, dined together at the Hotel Cecil.

The CHAIRMAN, in proposing the loyal toasts, which were enthusiastically received, referred to the active interest which Queen Alexandra had taken with regard to the care of the sick and wounded.

Sir FREDERICK TREVES, K.C.V.O., proposed "The Navy, Army, and Reserve Forces," which was replied to by Rear-Admiral Sir ROBERT H. HARRIS, K.C.B., and the Secretary of State for War.

Mr. BRODRICK apologised for the unavoidable absence of Lord Roberts and said that the Commander-in-Chief had charged him to express to those present his lordship's high appreciation of the admirable services of the civil surgeons in South Africa. The medical authorities had furnished the Government with some 700 recruits in a time of emergency and he thought that there should be a good understanding between the military authorities and those high authorities who had furnished the recruits. There had been a great deal of criticism on the medical arrangements of the war, but those persons who criticised generally overstated their case. Even if there were points on which amendment was desirable the universal condemnation expressed by some persons of the zeal, ability, and organisation with which they had to deal had overshot its mark and had caused some revulsion of feeling in favour of those who, under great difficulties, had tried to accomplish the task which they had had to fulfil in South Africa. Undoubtedly they recognised that with greater demands and the stress of modern appliances some changes were necessary and that now was the proper moment to apply those changes. Although he desired nothing more ardently in respect of the Medical Department than to obtain the best civilian guidance in perfecting their arrangements, and although he hoped to ask very shortly some of those who could most help them in that respect from among the higher authorities of the civilian profession to advise them on those changes which, whether in regard to elasticity of terms or improvement of position, might enable them to get the best candidates for the medical service, still he could not help feeling that they had an organisation on which might be founded not merely something which was effective but something which, as their experience was most recent, entitled them to obtain a medical organisation for the army which would place them in the fore-front of all European peoples. But while the Government would willingly avail themselves of the experience of those who had come to their rescue in South Africa, he trusted that the patriotism of the medical profession would also assist them in perfecting a scheme which would give to the country the best medical organisation in the world. Mr. Brodrick concluded his speech by reviewing the recent events in South Africa and expressed the determination of the Government to do everything that was possible to induce the country to continue that patient endurance which was necessary at this stage of the war, and which alone could bring these operations to a satisfactory issue and guarantee for us an honourable and a lasting peace.

Mr. G. H. MAKINS, C.B., proposed "The Army in South Africa," to which Major-General IAN HAMILTON, K.C.B., responded, and in doing so paid a high tribute to the services which the medical profession had rendered to the army in South Africa. Referring to a case in connexion with his own command he said that every civil surgeon or member of the Royal Army Medical Corps had done the work of about 10 men, working night and day. He referred specially to the services of Colonel W. D. C. Williams C.B., of the New South Wales Army Medical Corps, and of Dr. Fremantle.

Mr. A. D. FRIPP, C.B., C.V.O., proposed the toast of "The Royal Army Medical Corps," which was responded to by Surgeon-General J. JAMESON, C.B., who expressed his gratitude for the very excellent services rendered by the civil surgeons in South Africa, many of whom, out of a spirit of loyalty and patriotism, had given up good practices and hospital appointments, severed family ties, renounced home comforts, and braved the risks which belonged to war. He said that he had been able to supply every demand from South Africa both of *personnel* and material, and those present that night were the best judges of its efficiency. There were some 700 civil surgeons employed and in selecting them he was greatly indebted for the help which he had received from deans and teachers of metropolitan schools and from professors of universities. He took the present opportunity of thanking Professor D. J. Cunningham of Dublin and Professor McCall Anderson of Glasgow. Three civil surgeons were killed in action and nine died from disease. Four of the 523 men of the Royal Army Medical Corps were killed in action, two died from wounds, and 12 from disease. Enteric fever was responsible for the large majority of sickness; this disease furnished 85 cases. Dysentery gave 39 cases and simple continued fever 21 cases. From enteric fever the rank and file suffered in about the same proportion as did the medical officers.

The toast of "The Guests" was proposed by Mr. A. A. BOWLBY, C.M.G., and replied to by Sir ROBERT ROMER, G.C.B. and Major General EATON. "In memoriam" was proposed by Sir W. THOMSON, C.B., and "The Chairman" by Mr. CLINTON DENT.

ASYLUM REPORTS.

City and County of Bristol Asylum (Annual Report for 1900).—The average number of patients resident during the year was 784 and comprised 368 males and 416 females. The admissions during the year amounted to 246 and of these 161 were females and 85 were males. Of these, 29—viz., 7 males and 22 females—were not first admissions. Dr. Harry A. Benham, the medical superintendent, states in his report that 40 female patients boarded out temporarily at the Gloucester County Asylum were received here in July, 1900, and all patients chargeable to the city of Bristol are now under treatment in the asylum. There are 19 male boarders from unions under the control of the London County Council and 3 from other unions in the county. Dr. Benham is of opinion that in the city of Bristol "no great increase (of insanity) has been experienced in the last few years." Reconstruction and enlargement of the whole of the administrative and residential block of the institution were necessitated in 1889, and the building was pulled down and rebuilt. It was opened in 1892 and was furnished with accommodation sufficient to provide for over 1000 patients. In 1897 fresh buildings to provide for 150 more female patients and an isolation hospital were commenced. These have just been completed. Permission has been obtained to provide additional buildings for 59 male patients. Owing to the foresight displayed in securing the necessary land and the erection of suitable buildings there will probably arise no need for further extension for several years, and this period "may be largely extended if the Poor-law guardians carry out the contemplated provision for chronic cases capable of treatment in the imbecile wards of a workhouse. The removal of this class of patients from the asylum," says Dr. Benham, "is what I have earnestly advocated for many years. . . . It will give this institution an opportunity of doing further justice to those cases capable of improvement which should be the primary object of asylum treatment, and which is hindered by the presence of those helpless and incurable cases whose retention is found to be detrimental to the recovery of those amenable to treatment." The number of cases discharged as recovered during the year amounted to 97—viz., 39 males and 58 females, or 12 37 per cent. of the average number resident. The deaths during the year amounted to 94—viz., 44 males and 50 females, or 12 per cent. as calculated on the same basis. Of the deaths, one was due to colitis, two were due to cancer, three to epilepsy, *four* to bronchitis, six to senile decay, nine to cardiac disease, 11 to pneumonia, 11 to renal disease, 11 to general paralysis, 13 to œdema of the lungs, and 13 to phthisis and tuberculosis. "33 deaths, or more than one-third of the whole number, occurred in the March quarter when influenza was epidemic in the asylum." There has not been a single coroner's inquest during the year. In 87 cases of deaths post-mortem examinations were made. The electric installation is at last almost completed and the whole of the main buildings are now lighted by electricity. The new land acquired by exchange from the Bristol guardians is now under cultivation and the amount of garden ground capable of being worked by the patients is more than doubled. This enables suitable employment to be found for inmates and the produce of vegetables is increased. The Lunacy Commissioners state in their report that the day-rooms and dormitories were in excellent order and that comfort and the utmost cleanliness prevailed. There was no employment of mechanical restraint or seclusion during the year. The condition of the case-books and other medical records and the prosecution of much original pathological research showed that both diligence and efficiency prevailed in the medical staff.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 5321 births and 3580 deaths were registered during the week ending June 1st. The annual rate of mortality in these towns, which had been 16·8 and 16 7 per 1000 in the two preceding weeks, further declined last week to 16·3 per 1000. In London the death-rate was 15 4 per 1000, while it averaged 16·8 in the 32 large provincial towns. The lowest death-rates in these towns were 9 3 in Brighton, 10·8 in Croydon, 11·6 in Norwich, and 11 9 in Halifax; the highest rates were 19·8 in Sunderland, 20 9 in Oldham, 22 5 in Hull, and 22 6 in Preston. The 3580 deaths in these towns last week included 360 which were referred to the principal zymotic diseases, against 371 and 386 in the two preceding weeks; of these, 118 resulted from measles, 83 from whooping-cough, 46 from scarlet fever, 44 from diphtheria, 40 from diarrhœal diseases, and 29 from "fever" (principally enteric). No death from any of these diseases was registered last week in Huddersfield; in the other towns they caused the lowest death-rates in Croydon, Plymouth, and Norwich, and the highest rates in Swansea, Bolton, Preston, and Gateshead. The greatest mortality from *measles occurred in Birmingham, Wolverhampton, Liverpool,* Bolton, and Gateshead; from scarlet fever in Oldham and Preston; from whooping-cough in Swansea, Preston, and Sunderland; and from "fever" in West Ham and Swansea. The mortality from diarrhœal diseases showed no marked excess in any of the large towns. The 44 deaths from diphtheria included 13 in London, four in Cardiff, four in Birmingham, three in West Ham, three in Leicester, three in Liverpool, and three in Blackburn. No fatal case of small-pox was registered last week in any of the 33 large towns; and only one small-pox patient was admitted into the Metropolitan Asylums hospitals during the week and remained under treatment on Saturday, June 1st. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2352, against numbers increasing from 1522 to 2241 on the five preceding Saturdays; 318 new cases were admitted during the week, against 397, 323, and 341 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in *London, which had been 249* and 191 in the two preceding weeks, rose again last week to 240, but were 38 below the corrected average. The causes of 41, or 1·1 per cent., of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Nottingham, Salford, Newcastle, and in 10 other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Halifax, Hull, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·2, 20·3, and 20·7 per 1000 in the three preceding weeks, declined again to 20·1 during the week ending June 1st, but showed an excess of 3 8 per 1000 over the mean rate during the same period in the 33 large English towns. The death-rates in these Scotch towns ranged from 12 9 in Leith and 17·4 in Perth to 25·3 in Greenock and 26 7 in Paisley. The 638 deaths in these towns included 47 which were referred to whooping-cough, 24 to diarrhœa, 17 to measles, four to diphtheria, three to "fever," one to small-pox, and one to scarlet fever. In all, 97 deaths resulted from these principal zymotic diseases last week, against 89 and 94 in the two preceding weeks. These 97 deaths were equal to an annual rate of 3·1 per 1000, which was 1·5 above the zymotic death-rate last week in the 33 large English towns. The fatal cases of whooping-cough, which had been 49, 41, and 40 in the three preceding weeks, rose again last week to 47, of which 22 occurred in Glasgow, 17 in Edinburgh, four in Paisley, and two in Dundee. The deaths from diarrhœa, which had been 18 and 30 in the two preceding weeks, declined again to 24 last week, and included 16 in Glasgow, four in Edinburgh, and two in Dundee. The fatal cases of measles, which had been 15 and 19 in the two preceding weeks, decreased again last week to 17, of which 12 were registered in Glasgow, two in Edinburgh, and two in Greenock. The three deaths from "fever" were all recorded in Glasgow, where two of the four fatal cases of diphtheria and the death from small-pox also occurred. The deaths referred to diseases of the respiratory organs in these towns, which had been 101 in each of the two preceding weeks, rose last week to 107, and slightly exceeded the number in the corresponding period of last year. The causes of 26, or more than 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 27·4, 27 4, and 26 5 per 1000 in the three preceding weeks, further declined to 23 0 during the week ending June 1st. During the past four weeks the death-rate in the city has averaged 26 1 per 1000, the rates during the same period being 15 7 in London and 21·3 in Edinburgh. The 153 deaths of persons belonging to Dublin registered during the week under notice were 22 below the number in the preceding week, and included five which were referred to the principal zymotic diseases, against 15, 10, and nine in the three preceding weeks; of these, two resulted from whooping-cough, two from "fever," and one from diphtheria These five deaths were equal to an annual rate of 0·8 per 1000, the zymotic death-rates during the same, period being 1·6 in London and 3 9 in Edinburgh. The fatal cases of whooping-cough, which had been nine, seven, eight, and five in the four preceding weeks, *showed* a further considerable decline last week. The 153 deaths in Dublin last week included 22 of children under one year of age and 38 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons were fewer than in the preceding week. Four inquest cases and three deaths from violence were registered, and 74, or nearly one-half, of the deaths occurred in public institutions. The causes of five, or more than 3 per cent., of the deaths in the city last week were not certified.

IRISH VITAL STATISTICS.

WE have been favoured by the Registrar-General of Ireland with a copy of his summary of births and deaths registered in the quarter ended in March last. In a courteous letter Mr. Matheson draws our special attention to certain important matters dealt with in this summary for the first time. As a prominent feature in the pamphlet, we notice a new table, showing for the city of *Dublin and* the urban districts of Rathmines and Pembroke the number of deaths which occurred among children whose lives had been insured. Of the children under 10 years of age who died during the quarter as many as 46 per cent. were insured. The Friendly Societies Act limits the amount which may be paid at death to £6 in the case of a child under five years and to £10 in the case of a child under 10 years. The table indicates that it is among very young children mainly that insurances are effected in Dublin, nearly three-fourths of the insured children being under three years of age at the time of their death. Mr. Matheson, however, gives no reason for suspecting that foul play has been generally resorted to in connexion with life insurance; on the contrary, he shows that out of 397 insured children dying last quarter as many as 378 were registered on the evidence of a medical certificate of cause of death.

The burial of stillborn children is the next point referred to in the summary before us. From returns which were furnished to the Registrar-General it appears that the interments of 83 stillborn children were reported at one or other of the cemeteries in Dublin—a number equal to 3·1 per cent. of the total births. Under existing law neither the births nor the deaths of stillborn infants are registrable—a fact which in the opinion of those best qualified to judge opens wide the door for the commission of crime. The Select Committee of the House of Commons whose valuable report on death-certification was published in 1894 drew attention to this defect in the law and recommended that legislation should be sought to compel the registration of stillbirths and to prohibit the burial of stillborn children without suitable precautions. Meantime the Irish Registrar-General is to be commended for bringing into due prominence this important subject and also that of the burial of infants who lives have been insured.

The third point to which Mr. Matheson invites attention is the occurrence in Dublin of an epidemic of "cerebro-spinal meningitis" during the last 18 months. Within that period as many as 77 deaths have been caused by this disease in the Dublin registration area alone, or more than double the number that occurred during the same time in the whole of England and Wales. Two tables are given in the summary, the one giving the localities invaded by the disease within the Dublin area, the other showing the occupations and the age at death of the 77 persons who fell victims to the recent epidemic which now happily appears to be on the wane.

We are glad to observe that the useful table (a special feature of the Dublin report) which gives the occupation or social position of those dying from time to time is still continued. It is greatly to be desired that the authorities at Somerset House may see their way to inaugurate similar returns for England and Wales. Based on a population exceeding 32 millions such statistics would be of high scientific value and interest.

We complete our notice of this interesting summary with a suggestion which, we hope, will be accepted in the spirit in which it is offered—namely, that a column should be added to Table IV., showing the *ratio of infantile mortality under one year to 1000 births*. The necessary facts are already given, but the additional column suggested would greatly add to the value of the table, for infant mortality is now regarded as the truest test of what is implied in the term "sanitary condition."

THE SERVICES.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL J. JAMESON, C.B., Honorary Surgeon to the King, Director-General of the Army Medical Service, is placed on retired pay.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel Alfred Goodwyn Kay, is seconded for service on the Staff. Civil Surgeon Daniel Litton Harding to be Surgeon-Lieutenant.

Lieutenant Davidson has left Aldershot for duty in the North-Western District. Lieutenant Parsons has been ordered to hold himself in readiness to embark for Malta at an early date. Lieutenant T. F. White, doing duty at the 3rd Station Hospital, Aldershot, holds himself in readiness to embark for the Cape at an early date. Major S. O. Stuart has joined at Woolwich. Colonel W. E. Saunders, C.B., has embarked for India. Major A. R. Aldridge is appointed Sanitary Officer, Bengal Command, vice Major L. P. Mumby.

IMPERIAL YEOMANRY.

Duke of Lancaster's Own: Surgeon-Major W. W. Wingate-Saul to be Surgeon-Lieutenant-Colonel.

VOLUNTEER CORPS.

Rifle: 2nd Volunteer Battalion the Lancashire Fusiliers: Surgeon-Captain W. Pooley to be Surgeon-Major. 3rd (Dumfries) Volunteer Battalion the King's Own
Scottish Bo
his commiss
Lieutenant.
Regiment:
graph 118
and St. Ge
be Surgeon-
tenant C. A.

VOLUNTEER MEDICAL STAFF CORPS.

The Glasgow Companies: Surgeon-Lieutenant R. T. Halliday, from the 5th Volunteer Battalion Princess Louise's (Argyll and Sutherland Highlanders), to be Surgeon-Lieutenant. The Manchester Companies: Surgeon-Lieutenant W. B. Pritchard to be Surgeon-Captain.

ROYAL MILITARY TOURNAMENT.

The Royal Military Tournament, if not quite up to the standard of some other years, is nevertheless a splendid spectacle, but for some reason it has not awakened the enthusiasm of the general public which usually characterises this annual entertainment at the Agricultural Hall, Islington. The war in South Africa may have something to do with this apathy or it may be that the disposal of the surplus of last year's receipts did not meet with general public approval. But whatever the cause, the comparatively small attendances are to be regretted, for apart from the fact that the tournament affords pleasant recreation to thousands, the great tournament of the year and with it the local tournaments do not a little to improve the physique of the army and act also as a stimulus to recruiting. In addition to the usual fencing, riding, and other competitions which take place during the fortnight for which the tournament remains open there are one or two items in the programme to which we may call special attention. One of these is the display by the Royal Marine Artillery in which a naval 5-inch gun after being drawn into the arena together with portable shears is taken from its carriage, mounted, fired, dismounted, and again made ready for removal in a little over five minutes. It is an exciting performance and one which is watched with the keenest interest by both the seeker after amusement and the lover of practical utility. Then there is the display by a detachment from H.M.S. *Excellent* and the smart manner in which the men handle the guns brings forth deafening rounds of applause. The musical drive by the Royal Horse Artillery and the musical ride by the 1st Life Guards are also items on the programme well worth seeing, and the clever and graceful bareback riding by men from the cavalry depôt at Canterbury always meets with approval. The "set piece," if we may use the term, of the tournament is always the pageant which this year illustrates the inauguration of the Australian Commonwealth, and every corps that participated in that ceremony is represented. The scene is a pretty one and is also well worth seeing from an educational point of view. The final display represents an attack upon, and defence of, an Indian village the occupants of which are attacked while holding a gymkhana. A feature of this performance is the building of a bridge by the Royal Engineers which is held against a supposed enemy by two Royal Horse Artillery guns. It is to be hoped that no serious accident will happen in connexion with this last item, but the pontoon wagons have to be manœuvred in a very confined space and the horses drawing the wagons sometimes become frightened by reason of the noise and antics of the performers in the gymkhana.

The medical and sanitary arrangements are under the supervision of the principal medical officer, Major G. H. Barefoot, R.A.M.C., who is assisted by Lieutenant H. J. McGrigor, R.A.M.C. We have always maintained that the Agricultural Hall was never intended for the housing of a large number of troops and horses and at the same time to accommodate a large number of spectators, but the medical officers who have been responsible for adapting the building to the purposes of the Royal Military Tournament have year by year caused improvements to be made in the matter of sanitation and ventilation until at the present time the building is as perfectly adapted to the purposes of the tournament as it is possible to make it. Some 1000 men sleep in the buildings in cubicles and there are 12 baths fitted with hot and cold water allotted to their use. The food, which is of excellent quality, is cooked in the building and served to the men in parties of 200 at a time, the mess-room being cleared up after each party of 200 have had their meal. The arrangements made for accidents are also praiseworthy. At each end of the arena an orderly is stationed with a medical haversack and water-bottle, while a stretcher party is always in attendance at one side of the arena at a point immediately below the Royal box. An ambulance wagon with two horses constantly harnessed is also kept in readiness for emergencies. Within a few yards of the principal entrance a small hospital has been fitted up for slight injuries, more serious cases being sent to the Guards' Hospital at Rochester-row. In the case of very serious accidents arrangements have been made to send the patients to the nearest civil hospital. The tournament will close on June 13th.

SOUTH AFRICAN WAR NOTES

Major-General H. F. Eaton has issued an appeal on behalf of the Soldiers' and Sailors' Help Society for discarded clothes for returned soldiers. He points out that the great difficulty in obtaining a situation is due to the discharged soldier's want of decent civilian clothing. A branch of the society is being started for the purpose of collecting clothing, and the committee would be much obliged if any gentlemen having clothing, including shirts and underwear, for which they have no further use, would kindly give it for the use of the men. To save the donors any unnecessary trouble or expense in the matter arrangements have been made with Messrs. Carter, Paterson, and Co., to collect parcels within their area at reduced rates if those giving clothes will kindly send a post-card addressed to the firm at 128, Goswell-road, E.C., requesting them to collect any parcels they may wish to send. Articles of clothing will also be received at the following addresses . Captain Simpson, 70, Victoria-street, S.W.; the Employment Branch of the Soldiers' and Sailors' Help Society, 115, Ebury-street; the offices of the Soldiers' and Sailors' Help Society, 17, King-street, St. James's, S.W.; Captain S. Waters, 28, Overton-road, Brixton, S.W.; and Mr. Oliver Williams, 71 and 72, King William-street, E C.

Surgeon-Lieutenant Colonel Kilkelly, C B , principal medical officer of the Imperial Yeomanry Hospitals, states that there remained in the hospital on May 8th 31 officers and 367 non-commissioned officers and men. The total admissions at that date were 3993 in-patients and 911 out-patients. Dr. Richmond of Guy's Hospital sailed on June 4th in the *Britannic* to take up his duties as principal medical officer of the new branch opened by the Imperial Yeomanry Hospitals Committee at Elandsfontein.

The following have been discharged from hospital to duty:—Lieutenant P. S. Lelean, R.A.M.C., and Major J. B. Buchanan, R.A.M.C., Civil Surgeons John Harry Saunders, John Law Aymard, William Hutton Nicol, Ralph John Jupp, Frank Lindsley Dickson, Herbert Hollick, Clement John Baker, and Leonard Bowring Betts.

Civil Surgeon Wilbond is still reported seriously ill (May 31st). Lieutenant Stock, R A.M.C., is reported much improved.

Major H. J. Wyatt, R.A.M.C , and Major A. Wright, R.A.M.C., are on passage home.

AFFAIRS IN SOUTH AFRICA.

At the moment of our writing the daily journals are full of exciting, but not very satisfactory, intelligence of a military character from South Africa and of a political nature in regard to that country and the war. We have nothing, of course, to do with the latter, but we may nevertheless remark that it is calculated to raise the "eyebrows of astonishment," as the Germans say, to notice how completely some facts connected with the past history of the war seem to have been altogether ignored by some writers at the present time. That the South African republics had been for years making their preparations, that the declaration of war came from them and not from the British Government and was immediately followed by an invasion on their part of British territory are, we take it, facts which cannot be denied. But to read some of the statements which are now published it would be thought that the Government of this country was the sole aggressor, had begun the war, and had from first to last pursued a cruel and tyrannically aggressive policy in regard to a simple pastoral people fighting in defence of their homes, their rights, and for a reasonable amount of independence. Now that they have slain large numbers of our troops and caused an enormous outlay of treasure it is our duty to make peace on their terms and to incur the risk of having to go through the whole thing again at some future date. The details of the Vlakfontein fight show what an uncommonly severe fight it was, and it is comparatively easy to understand how it was brought about. It was of the nature of an ambuscade. The enemy rushed the rearguard under cover of the smoke of a veldt fire; and as regards the 100 men of the Derbyshire Regiment, as they lost over 80 of their number it is clear that they were surprised and shot down almost at once. The force in advance of its rearguard soon took part in the fight and succeeded in recapturing some guns and driving off the attacking Boer force. The Boers left 41 dead on the field, but their further casualties are not known; whereas ours are—and they are heavy—six officers and 51 men killed, six officers and 115 men wounded, and one officer and seven men missing. An officer and four men have since died from their wounds. In Cape Colony Jamestown was looted of its stores by the Boers, but the enemy were followed up and most of the stores were recovered.

In addition to the casualty list attributable to these occurrences there are many deaths and a good deal of sickness from disease causes, notably from enteric fever.

HONOURS FOR FRENCH NAVAL MEDICAL OFFICERS

The Conseil Supérieur de Santé has decided to award the Prix de Médecine Navale for 1900 to Dr. H. J. A. Reboul, principal medical officer of the Cochin China Naval Division, the annual inspection report sent in by that officer having been adjudged to be the best of all that were submitted The Conseil also mentions with commendation no fewer than six other reports by medical officers of the higher ranks and takes the opportunity of drawing the attention of the Minister of Marine to them in order that the authors may receive official recognition for their labours. Five of the officers in question were in medical charge of first-class ironclads, the sixth being principal medical officer of the Pyrotechnic School at Toulon.

THE LEGION OF HONOUR.

In virtue of a Ministerial decision dated Feb. 28th, 1901, the name of Dr. Conan, first class medical officer in the French navy, has been noted for promotion to the rank of Chevalier of the Legion of Honour in recognition of his gallantry and devotion while in medical charge of the Malagasy tirailleurs during the late campaign in Madagascar.

THE VICTORIA CROSS.

The King has signified his intention to confer the decoration of the Victoria Cross on Captain N. R Howse F.R.C.S. Eng., L R.C P. Lond., of the New South Wales Medical Staff Corps, for the following act of courage — "During the action at Vredefort on July 24th, 1900, Captain Howse went out under a heavy cross fire and picked up a wounded man and carried him to a place of shelter."

DEATHS IN THE SERVICES.

Surgeon - Captain Francis Welford, M.B., of the 7th Battalion Imperial Yeomanry, who died from wounds at the engagement at Vlakfontein on May 29th, went out to South Africa last year and was gazetted as temporary Captain on Feb. 24th, 1900.

Major W. A. Morris, R.A.M.C., the honorary secretary of the Ambulance Section of the Naval and Military Exhibition at the Crystal Palace, asks us to inform medical men and others who have written any books on ambulance work or who have invented any ambulance material, that the Ambulance Committee of the exhibition is very anxious to have as complete a collection as possible, and they would be glad to receive such articles. The Crystal Palace Company will pay all expenses and Major Morris will be very happy to afford to anyone who may be inclined to contribute to the success of the ambulance exhibition every assistance if they will write to him at the Crystal Palace

---

BRISTOL LUNATIC ASYLUM.—The fortieth annual report of the Visiting Committee of the *Bristol Lunatic Asylum, Fishponds*, shows that at the end of 1900 there were 814 patients (369 males, 445 females) in the institution, against 799 (383 males, 416 females) on Dec. 31st, 1699 The extension on the female side has been completed during the past year and three of the four new wards are occupied by patients. The new dining-hall has been opened and the isolation hospital has now been completed. During 1900 the percentage proportion of recoveries to admission was 50 and the percentage proportion of deaths to the average number resident was 11 99.

Correspondence.

"Audi alteram partem."

"ARTERIAL HYPERTONUS AND ARTERIO SCLEROSIS"

To the Editors of THE LANCET

SIRS,—In his valuable paper on Arterial Hypertonus and Arterio Sclerosis, in THE LANCET of June 1st, p 1519, Dr W Russell points out that while in arterial hypertonus the middle coat of the arteries in general is thickened, that of the intra renal arteries, far from being thickened, may be actually atrophied This observation is of peculiar interest to me, confirming as it does a view which suggested itself to me some years ago—in my student days, in fact My Michael Foster had taught me that the most efficacious way of increasing the urinary flow vaso-motorially is by a dilatation of the arteries of the renal area and a constriction of the remaining systemic arteries, the effect of this latter being to send up the blood pressure in the aorta and so to force the blood in increased abundance and under increased pressure through the dilated renal area These physiological facts I sought to apply to the pathology of granular kidney In this disease there are general systemic arterial constriction, toxæmia, and polyuria, and I argued that the polyuria is for the purpose of relieving the toxæmia and that it is induced vaso-motorially in the manner just described Now, if this explanation be correct, the media should be thickened in all the systemic arteries save those of the renal area which should not show thickening of this coat At that time, however, all the evidence seemed to be in favour of these latter vessels being affected in the same way as the other systemic arteries, and thus, while I have never been able wholly to dissuade myself that the arterial hypertonus met with in granular kidney and allied toxæmic states is for the purpose of aiding the elimination of the toxins I could not completely satisfy myself that such was actually the case Dr Russell's observation, however, appears to remove the only difficulty in the acceptance of this view

One word as to the thickening of the intima in arterial hypertonus Dr Russell attributes it to the direct action of the poisonous blood It seems difficult to believe that a poison freely circulating throughout the body picks out and irritates the intima throughout the entire systemic arterial tree while leaving the other connective tissues unaffected Such a view implies that the connective tissues have the same kind of selective power for toxins as have nerve tissues I suggest the following explanation of the thickening in question 1 There is toxæmia 2 In consequence of this all the arteries, save the intra renal, contract 3 As a result of this increased peripheral resistance the blood pressure in the entire systemic arterial tree rises This would happen even though the heart did not beat more powerfully, but it does beat more powerfully in order to maintain the normal flow into the veins, and thus the blood pressure is still further augmented 4 This increased pressure increases the tension in the media and the intima The strain must, of course, be felt by the media, since this coat by its active contraction has to exert a pressure equal to the blood pressure, otherwise it would be merely yielding passively It must also be felt by the intima which is compressed by the actively contracting media on the one hand and the blood on the other The strain will, however, not be felt by the adventitia, for when the media contracts it drags the adventitia with it, thus actually diminishing the tension in the latter 5 The intima being subjected to this strain, week in week out, year after year, thickens, while the unstrained adventitia suffers little or no change

If the above explanation be correct I should expect to find the adventitia of the intra renal arteries greatly thickened, seeing that it is apparently not protected from strain by an actively contracting media

I am, Sirs, yours faithfully,

Wimpole-street, W, June 3rd, 1901 HARRY CAMPBELL

"LOCAL *v* GENERAL ANÆSTHESIA IN CERTAIN CASES OF ABDOMINAL SURGERY."

To the Editors of THE LANCET.

SIRS,—In spite of the strictures of Dr S H Long[1] and Dr J Blumfeld,[2] I think that Mr T H Morse[3] has done well to draw attention to a subject which as yet has not received sufficient attention at the hands of the profession and is, in fact, practically in its infancy.

Possibly, if every medical man called upon to assist a surgeon in the performance of a critical and urgent operation were as able an anæsthetist as is Dr Long or Dr. Blumfeld, the subject of local anæsthesia might not be worth further consideration These gentlemen naturally consider the subject mainly from their own special point of view, and yet it is not difficult to conceive an urgent case in which, through some cardiac or pulmonary affection, both Dr Long and Dr Blumfeld would think twice before putting the patient under a general anæsthetic, would only administer such with extreme care, and would be glad when the operation was safely over If that applies to them how much more does it apply to the rank and file of the profession, who, in many cases, are entirely unskilled in the use of anæsthetics and whose administration of them in a critical case would probably cause a "shock" to the operator if not to the patient In this direction Mr Morse must have a varied and not always an enviable experience Called at a moment's notice to operate all over the county he must rely on the assistance of the medical man in charge, often in an isolated district, miles away from any further help What a boon in such a case to be able to dispense with a general anæsthetic and to utilise the services of his *confrère* in the performance of the operation! What a blessing to run no risk from the vomiting and malaise so frequently following the administration of a general anæsthetic! How portable, also, a little eucaine and a hypodermic syringe are! No risk of bursting or leaking bottles, no anxiety—as I have had—as to whether the chloroform or ether will hold out Both Mr Morse's critics allude—as he does—to the risk under general anæsthesia of the patient inhaling some vomit, and point out the means to prevent such a disaster This is all very well with a hospital with everything handy, or with a skilled anæsthetist who, I presume, has always got the necessary tube, &c, in his bag, but what about an urgent case in the country—would not a subcutaneous injection of eucaine be preferable with none of this risk?

Again, has a really safe general anæsthetic been discovered? Have not deaths occurred from them all? Ether, I believe, has not an absolutely clean sheet in this respect I am quite aware that Mr Morse is only one pioneer in this direction, but his efforts deserve encouragement rather than the strictures they have met with at the hands of his critics, who mainly discuss his opening statements on the causation of shock after operations and seem not much to look beyond, but, shock or no shock local anæsthesia appears to me to have come to stay Mr A E Barker was, I believe, one of the very first to use this method We may look forward, I trust, to hearing the results of his extended experience of the subject ere long

I am, Sirs, yours faithfully

Norwich June 2nd, 1901 S JOHNSON TAYLOR

DARENTH ASYLUM ISOLATION HOSPITAL

To the Editors of THE LANCET

SIRS,—In your list of appointments in THE LANCET of June 1st, page 1581, I notice that I am designated "visiting medical expert to the Isolation Hospital at Darenth Asylum" The correct description of the appointment which I have the honour to hold under the Metropolitan Asylums Board is given in the paragraph on page 1561—viz, *Medical Expert in connexion with Rochester House, Ealing*—which is intended to be conducted as a school and training establishment for 150 of the more educable imbecile children under the care of the board As the announcement in the list of appointments is likely to cause misconception I venture to send this correction

I am, Sirs, yours faithfully,

June 4th, 1901 G E SHUTTLEWORTH

---

[1] THE LANCET, May 25th, 1901, p 1493.

[2] THE LANCET, June 1st, 1901, p 1569

[3] THE LANCET May 11th, 1901 p 1322.

"THE IMPORTANCE OF ASEPTIC VACCINATION."

To the Editors of THE LANCET.

SIRS,—Surely a journal with the reputation of THE LANCET owes some explanation to its readers for reproducing in the annotation on aseptic vaccination the often-exposed fable regarding small-pox mortality in the French and German armies. This statement was withdrawn by Dr. W. B. Carpenter, who originally promulgated it in this country. Its falsity was admitted by Lord Herschell's Commission. But the marvellous comparison keeps "popping up again," as the old lady said of Mr. Gladstone. In 1899 Mr. Rider Haggard used it in a little lecture to a conscientious objector, and afterwards withdrew it. The Jenner Society obtained through the Foreign Office an official statement from the French authorities on this subject. In this the estimate that 23,400 soldiers had died from small-pox was stated (as a little reflection would lead one to expect) to be "greatly in excess of the reality" so greatly that the 23,400 was brought down "not to exceed 6000." An estimate worth little at the best has thus suffered an official abatement of nearly 75 per cent. But the story on the authority of your review is still doing service in the newest pro-vaccination literature and THE LANCET has unaccountably given the lie one more start in this country.—I am, Sirs, yours faithfully,

ALEX. PAUL.

⁂ The figures escaped our attention. We regret to have published them as their falsity has been established.—ED. L.

SPANISH BRANDY.

To the Editors of THE LANCET.

SIRS,—We should like to state in your columns, for the benefit of those of the medical profession who are contemplating the use of "Pure Grape Spanish Brandy," that we claim one thing for it only—viz, that of being the matured distillation of grape juice. We state this in order that it may not be construed that we have desired to compare our product to *genuine* Cognac brandy; but what we do wish is that it should be compared, and that favourably, with certain brandies which are bought and consumed by those who cannot pay the price to guarantee their getting the genuine article—viz., *genuine* Cognac brandy—and in consequence obtain, unknown to themselves, clever imitations, in many cases destitute of any grape spirit.

We are, Sirs, yours faithfully,
WILLIAMS AND HUMBERT.

Mincing-lane, London, June 4th, 1901.

"ROYAL ORTHOPÆDIC HOSPITAL."

To the Editors of THE LANCET.

SIRS,—The majority of the executive of the Royal Orthopædic Hospital are still forcing on the sale of the site. It is therefore pertinent to ask what are their reasons for a policy to which so many grave objections have been raised. The arguments against sale have not been answered by Mr. H. H. Marks, although publicly challenged by correspondence and by your article of April 6th, p. 1025. So far from courting publicity Mr. Marks has sheltered himself behind a private letter to the Editors of THE LANCET. Why should there be any mystery about the proposed sale of a freehold property already advanced in price from £28,000 to £38,000 within a few years, and still steadily advancing in value? Any business man proposing to exchange his freehold for a leasehold under such circumstances would be regarded as a candidate for a lunatic asylum. Why does Mr. Marks decline to give a full public statement of the *pros.* and *cons.* of the case in taking a step of such vital importance to an old-established medical charity? Does he, and do the trustees, think it "*desirable*" that the annual deficit of £500 should be increased to £2000 a year or more? Does he, and do they, think it "desirable" that after advertising that the patients have increased by 30 per cent. (this is a compliment by the patients to the work of the *surgical staff*) his intention is to maintain only an equal number of beds in the proposed new building? In fact, as you, Sirs, have said, this matter becomes more and more "a case for publicity" and ample discussion, and this is what Mr. Marks appears to dread. Where, then, is his case?

I am, Sirs, yours faithfully,
June 5th. ANOTHER HOSPITAL GOVERNOR.

THE PAYMENT OF MEDICAL MEN BY THE COLONIAL OFFICE.

To the Editors of THE LANCET.

SIRS,—The parsimony of the Colonial Office is by this time quite proverbial, but it has certainly surpassed itself in respect to the terms offered to the "few doctors" it is asking for duty in the "refugee camps" established in the Orange Free Colony. When "locums" can command from four to seven guineas a week and assistants from three to five, when the War Office is still asking for civil surgeons with pay and allowances of some 25*s.* a day, with free rations, a free return passage, a horse, a servant, and a gratuity of two months' pay, the Colonial Office advertises for medical men to undertake the harassing and depressing duties of a refugee camp for the starvation wage of £1 a day, and even this princely salary commences, not on the day of *embarkation, or even on the day of arrival in South Africa,* but only when the duties are actually taken over. There are no allowances and no rations; and though with a really exceptional liberality a free passage *out* is offered, a discreet and probably economic silence is maintained about the *return.* As a bait the possibility of permanent employment is held out, dependent, however, on "satisfactory service." Permanent employment—where? and as what? When one remembers that the purchasing power of 20*s.* in South Africa is about half, and in some districts only one third, of its home value, the absolute inadequacy of the remuneration offered will, I trust, deter medical men from applying for these posts. Perhaps the services of some of the "*qualified dressers*" advertised for in the last Ashanti expedition might again be utilised? I am, Sirs, yours faithfully,

June 1st, 1901. H. A. D.

"LEGISLATION AGAINST NATIONAL INTEMPERANCE."

To the Editors of THE LANCET.

SIRS,—The discussion of this question seems to have degenerated into a vain and unprofitable attempt to get at the meaning of Dr. Archdall Reid's theories. May I ask you once again to let me state shortly the position of those of us who maintain that the medical profession, with its intimate knowledge of the manifold evils following free indulgence in alcoholic drinks, should join in the effort now being made to amend the licensing laws? The report of the special committee of the Society for the Study of Inebriety has been published and I gather from your summary that the committee is of opinion that some men are born drunkards, some acquire drunken habits (through want of knowledge, evil social habits, &c.), and some have drunken habits thrust upon them (by the force of trade customs and evil environment). I notice, also, that the committee cannot deny that drunken parents of the last two groups are liable to have degenerate children who tend to become criminals, lunatics, and *drunkards.* And, again, that the question of environment is of more importance than that of heredity. Most of us had already arrived at these conclusions some time ago, but we are glad to have the support of the Society for the Study of Inebriety which must, one would think, *now* be thrown in on the side of reform. For if, under suitable conditions as to environment, all or any of us may become drunken the "weeding out" theory can be ignored and the society can join those of us who are in favour not of prohibition (which seems to be Dr. Reid's one idea of temperance reform) but of a serious effort being made to educate public opinion and to bring about a revolution in our methods of dealing with the drink trade. By eliminating private profit from the sale of drink and by doing away with all the attractiveness of public-houses, and at the same time teaching the children in the public schools the truth about alcohol and providing wholesome places of amusement for the people we might hope to create a healthy *environment* and so to make it harder for a boy or girl to acquire drinking habits. I am, Sirs, yours faithfully,

M D., B.S. Lond.

London, May 28th, 1901.

THE ORGANISATION OF THE PROFESSION AND THE RE-ORGANISATION OF THE BRITISH MEDICAL ASSOCIATION.

(FROM OUR SPECIAL COMMISSIONER.)

IT had been announced that a conference on the organisation of the profession would be held at Birmingham during the month of May this year The first conference of this nature met at Manchester 12 months ago. In the interval between these two dates very important alterations in the constitution of the British Medical Association have been proposed As these alterations are framed precisely for the purpose of dealing with the economical and ethical questions which the Manchester conference met to discuss it was anticipated that these proposals would be studied at the gathering which was to take place at Birmingham Such a debate would have been particularly useful because the conference would have consisted in the main, not of representatives of the profession as a whole, but only of those medical men who have taken special interest in the economic problems at issue Thus a technical rather than a general opinion would have found expression and it would be very useful to know the views of those who have practical personal experience of the difficulties involved After such a discussion the task of criticising the proposed new constitution of the British Medical Association would have been greatly simplified Unfortunately, and at the eleventh hour, it was decided not to hold the proposed conference at Birmingham. The reason given for abandoning the conference is that the number of societies who promised to send delegates was too small to justify the trouble and expense which it would entail. This, however, it is maintained, does not indicate any lack of enthusiasm on the part of the societies that participated in last year's conference, but they are desirous first of seeing what form the new constitution of the British Medical Association will finally take In spite of this excuse, and, indeed, in consequence of this excuse, the postponement of the Birmingham conference might be taken as symptomatic of the inherent weakness of the movement in favour of the organisation of the profession This does not mean that the movement will not prosper, but it might be said that its backbone is not firmly set, that it is in a flaccid, gelatinous condition, that it has not yet obtained a firm grip of the situation, nor has it definitely laid the foundations on which it proposes to stand Indeed, as the movement is only some six years old it may still be considered to be in the period of incubation and of hesitation It has not sufficient self confidence and has a fatal tendency to attempt to run with the hare and to hunt with the hounds

There are two courses open for such a movement—that is to say for the organisation of the medical profession The one consists in modestly recognising that this is a matter in which medical men as a class have no experience whatever, and that therefore the medical profession must seek to benefit by the experience which other classes of the community have acquired in successfully organising themselves for the defence of their economic interests The other course is to ignore these teachings of social history, to discover anew what their predecessors have already found out, to learn by experience rather than by example and theory, and to struggle forwards till by dint of blunders and failures the true road to success shall at last have been discovered. If there is one fact that stands out more prominently than another it is that the weaker the organisation the more does it expect to accomplish But it cannot expect to do much out of its own weakness, therefore it looks to other outside influences for help This is a natural law The child expects his parents to provide the food he needs and which he is by himself incapable of procuring Such also is the history of organisations in their infancy They proclaim their needs and then expect the State or other sections of the community to secure for them what they want But if in this respect a new organisation is like a child the comparison breaks down in one very important particular. There are no parents to help the new movement The State, the community at large, is apt to display a heartbreaking and callous indifference towards the newly-born child and thus with organisations infant mortality is even higher than it is with human beings. But if organisations are frequently stamped out in their infancy the potentialities which brought them into existence still subsist and another and similar infant is born at a later period, and this is repeated over and over again till at last one more robust than its predecessors succeeds in living notwithstanding all adverse circumstances Let anyone study to-day the organisation of the medical profession and it will frequently happen that where a medical union is found alive and vigorous there also will be found buried in the ground on which it stands the skeleton of some previous union which had died in its infancy. Take, for instance, the town of Coventry, where the profession is now well organised, a similar organisation was started in 1829 and in 1831, and this, too, to fight against the principal grievance that obtains to day—namely, the abuse of the provident dispensary Indeed, in several localities it is difficult to persuade medical men to organise because they still remember the failure of some previous and similar effort

These facts convey two lessons. First, that new organisations are apt to be nipped in the bud and to die in their infancy; but, on the other hand, if there is a real need of such organisation other efforts will be made at a subsequent date Secondly, the weaker and less experienced these organisations are the more are they apt to look to outside forces for the attainment of their ends Now, in the abandonment of the Birmingham conference, in the hopes reposed on the action of the British Medical Association, in the clamour for stringent legislation and the more active intervention of the General Medical Council, have we not the symptoms of that infantile weakness which relies on parents for food rather than a proof of manly strength capable of winning the means of existence? These facts have to be looked at straight in the face The laws determining the economic evolution of communities are immutable It forms no part of nature's scheme to confer special immunities and privileges on the members of the medical profession If their economic position becomes embarrassed they will have to deal with these difficulties as other members of the community have done This is precisely what they are doing, and they are manifesting the same hesitation, the same weakness, and committing the same blunders as others have done before them The only point where a difference might arise, though there are no signs as yet of its occurrence, is that the medical profession might take greater advantage of the experience acquired by other classes of the community who have been forced by the stress of economic circumstances to form themselves into unions

The course to be followed is simple but difficult Certain economic circumstances have arisen, it cannot be said precisely on what day or at what hour. They have been of slow growth and even to day their presence is but vaguely felt by some and is completely ignored by others. A small minority, however, has acquired a knowledge of the action of these economic forces which, if not altogether new, are daily becoming more evident and more oppressive in their effects upon the medical profession This small minority has not been brought into existence by any one cause but by a multiplicity of causes, therefore each individual understands better that phase of the question which affects him personally This uneven distribution of knowledge is a source of great weakness, because it tends to split up the profession into different organisations instead of uniting it in one body Thus a certain number of practitioners are keenly alive to the evils of hospital abuse and some among them have consequently joined together in forming the Hospital Reform Association Others, on the other hand, feel the weak position of the practitioner should he have the misfortune to meet designing, unscrupulous people who might endeavour to ensnare him with a view to levying blackmail, &c Hence we have the Medical Defence Union and the London and Counties Medical Protection Society. Others, and they are the greatest number, realise that it is the provident dispensaries, the medical aid insurance companies, and the friendly societies that are the worst obstacles, and thus we have the formation, as at Coventry and Eastbourne, of Public Medical Services managed entirely by the medical men themselves Then there is yet another set of practitioners who complain of the competition of medical men against medical men and are bitter against "sixpenny doctors," and these practitioners are most anxious to form medical ethical societies But all these grievances are different manifestations of the one fundamental cause, the evolution of economic forces. They can only be met by action of a politico-economic character based on elevated ethical principles. The water has overflowed the river-wall. To deal with one grievance, to raise the embankment at one particular spot, will not prevent the flood; the embankment must be strengthened from one end to the other. Consequently the organisation to be formed must be prepared to deal with every phase of the economic problem at issue. Such an organisation must be composed of men who are capable of, and who have the knowledge necessary for, accomplishing the task. For this it is necessary to organise a widespread system of education and it will take a long time to accomplish this work. But man in his weakness and impotence longs for a short cut so as to end more rapidly his wearisome journey towards better destinies. Hence the tendency to gamble rather than to toil for the slow accumulation of fortune.

The practical question which has now to be examined is whether the proposed alteration of the constitution of the British Medical Association is a genuine step forward in the work of organising the profession for the defence of its economic interests, or whether it is but one of those deceptive short cuts which, instead of leading sooner to the end, only result in disappointments. This is a question that cannot be readily answered, because the result will depend so much, not on the method of organisation, but on the action of individuals. As for the method of organisation it presents obvious dangers. Will the energy and perspicacity of those most concerned suffice to overcome these dangers? No one can tell, for men totally unknown to-day may spring out of the ranks and lead with such skill that every obstacle will fall before them. The policy may be described as that of permeation and this is a double-edged weapon, for those who embark on such a mission never know whether they are going to permeate or whether they are going to be permeated. There are in England from 40 to 50 societies of medical men that are, comparatively speaking, ripe for the economic struggle, that do possess some knowledge of the economic problems at issue, that have very similar programmes, and that have an approximately clear conception of what should be done. This is a small beginning. These societies are young and they manifest some of the weaknesses described above and represent but an infinitesimal minority of the profession. But their influence is much greater than their numbers imply, for they alone are at least partially conscious of their class interests and they alone are to some extent disciplined. Will this small amount of leaven suffice to raise the whole profession, or will the apathy, the indifference, the ignorance of the great mass destroy these germs of progress? Had they kept apart, working only with those who were at one with them, they would not in any case be crushed, but their progress would be very slow. The existence by their side of so great an organisation as that of the British Medical Association is undoubtedly a very strong temptation. There are the men, thousands and thousands of them, there is the social influence, there is the money; if they would only all fall in and march as one man, how easily, how quickly, would the end be attained. This looks like a short cut, a very tempting path to follow. But will it be possible to move this great and comparatively inert mass? That is the problem.

Efforts are to be made to infuse new vitality into the branches of the British Medical Association, to render the general meetings more representative, and, above all, to institute a system of delegateship which shall be a real parliament of the profession, the decisions of which shall be binding on the executive of the association. But the more the profession is fully and adequately represented the more incoherent and contradictory will such representation become. Nothing could be more misleading than to imagine that the profession, as a whole, understands its economic position or possesses any distinct conception of what it needs and how this desideratum is to be obtained. Such knowledge exists, and this only to a limited extent, among the members of those few medical unions and guilds formed during the last six or seven years to deal exclusively with economic and ethical questions. It would be a grave mistake to sink such organisations, to allow them to be swallowed up by a larger body that is not so well versed in the points at issue. That these really militant and more competent bodies should be represented at the meetings of the larger organisation so as to strive to stimulate the more numerous but more inert body is all well and good. Such propaganda will doubtless bear fruit. But the truly militant, class conscious members of the profession who are organised to deal with the economic problem, however few they may be and however weak they may seem, must ever be ready to stand apart, faithfully adhering to the whole of their programme. Common-sense indicates the wisdom of joining with others so as to realise portions of their programme, but they should never allow themselves to be merged in a bigger body which has not yet accepted the whole of their programme. If these small but truly conscious bodies can play the part of the tail that wags the dog nothing better can be desired, but they must be prepared to stand independently on their own ground when they find that the dog attempts to wag them.

The question after all is extremely simple. There are economic forces developing that seriously menace the position and good name of the medical profession. A few medical men who may be qualified as pioneers have not only studied these economic problems but have formed organisations and have practically dealt with some of the difficulties. These pioneers have acquired a technique, the technique of economics as they affect the medical profession. They are qualified medical economists; their mode of procedure must not be swept away by a majority composed of unqualified voters. That the ignorant should be persuaded, that they should be taught, and that every opportunity should be given them to acquire knowledge, is most desirable, but that they should govern by their votes while they still ignore the points at issue, that cannot be admitted. Every effort must be made to dispel this ignorance, but while it still exists those organisations that are better informed must persevere in their mission, must maintain their independent existence. They are the vanguard of the army, they must keep well to the fore. The fact that they are not numerous is an insufficient excuse to justify them in occasionally falling back on the main body of the army. This may be done temporarily to attack in force some one particular point, but, this point carried, the vanguard must again separate itself from the main body and forge ahead.

GERMAN CONGRESS OF INTERNAL MEDICINE.

(FROM OUR BERLIN CORRESPONDENT.)

(*Concluded from p. 1367.*)

Acute Myelitis.

PROFESSOR VON LEYDEN (Berlin) read a paper on this disease, discussing it from the clinical point of view. He said that there were four forms of the disease: transverse myelitis, disseminated myelitis, poliomyelitis, and compression myelitis. Inflammation, softening, and hæmorrhage of the spinal cord were the principal anatomical lesions of myelitis. With respect to the etiology it was very probable that the disease was caused by infection; the majority of the cases were, in fact, subsequent to infective diseases, such as influenza, enteric fever, rheumatic sore-throat, phlegmon, &c. He had observed cases of myelitis following gonorrhœa, tuberculosis, and syphilis. Apart from infection myelitis might be caused by various injuries. The clinical symptoms differed according to the localisation; there was a dorsal, a cervical, and a bulbar form. The disease might develop either suddenly or gradually and by intervals Myelitis might advance to the bulb and so constitute an immediate danger to the patient's life, or it might spread in a transverse direction. Neuro-paralytic symptoms, such as paresis of the bladder and rectum, bedsore, &c., appeared somewhat early and made the prognosis unfavourable. The disease, as a rule, terminated fatally, but in some cases recovery had been observed. Sometimes the disease became chronic. Good nursing of the patients was especially necessary.

Professor REDLICH (Vienna) discussed the pathological anatomy of myelitis. He said that the late Professor Charcot was of opinion that in poliomyelitis the ganglia alone were affected; this, however, was the fact only in slight cases. In the great majority of cases not only the ganglia but also the other parts of the spinal cord were involved. In disseminated myelitis of the young there was an infiltration of the grey substance In other cases the disease was characterised by a degeneration and necrosis of the nervous substance Meningitis was not unfrequently combined with myelitis With respect to the etiology he said that bacteria had been detected in but few cases They were spread by the vessels, the subarachnoidal and the central canal The essential cause seemed to be the action of toxins The etiology was not yet by any means clear and must be studied further by the aid of puncture of the lumbar arachnoid

Professor VON STRÜMPELL (Erlangen) pointed out that myelitis might be caused by bacteria as well as by toxins In two cases in which lumbar puncture was made staphylococcus albus was found in one, but in the other the fluid was sterile

Dr SCHULTZE (Bonn) said that a new growth of the spine sometimes gave rise to the same symptoms as myelitis

Professor VON KAHLDEN (Freiburg) said that a degenerative lesion of the parenchyma was the primary, and degeneration of the vessels the secondary, lesion In poliomyelitis the ganglia were first affected

Dr RITTER (Berlin) reported six cases of myelitis in children He concluded from his investigations that they were caused by ptomaines

Epidemic Cerebro Spinal Meningitis

Dr JÄGER (Königsberg) said that this disease did not by any means always appear in the epidemic form, but that isolated cases might occur throughout the whole year, as had been found by bacteriological examination In all suspected cases even when the disease was not prevalent the arachnoidal fluid should be examined bacteriologically The statistics of the disease were still insufficient The enormous spread of cerebro-spinal meningitis in densely crowded districts in America, as, for instance, in New York, Massachusetts, &c, was very striking and the disease was very probably imported from there directly to Hamburg or indirectly through Copenhagen where epidemics are very frequent also

Alterations of the Blood in Rabies

Professor COURMONT (Lyons) read a paper on the polynuclear neutrophile leucocytosis which, according to his researches, is characteristic of this disease He has found that one of the first symptoms of rabies was an enormous increase of the leucocytes In the lungs of animals often 85 per cent of polynuclear leucocytes were present He said that the significance of this symptom could not be over estimated, for there was no rabies without polynuclear leucocytosis This observation was of great importance in relation to early diagnosis

Serum Diagnosis of Tuberculosis

Professor COURMONT also gave an account of a method used by Dr Arloing and himself for the purpose of ascertaining the presence of tuberculosis by bacteriological examination of the blood According to Dr Arloing tubercle bacilli caused the serum of the blood of tuberculous persons to become cloudy This application of serum diagnosis was very much used in the country of its originators, but had not proved trustworthy in Germany Dr Courmont said that only tubercle bacilli of great virulence gave this reaction When the virulence of a culture was verified day by day the method never failed as was shown by a long series of experiments made on animals in Lyons

Mortality of Pneumonia

Dr HAMPELN (Riga) read some statistics of the mortality of pneumonia He had found that the mortality differed considerably according as the patients were treated at home or in a hospital, being much greater among the hospital patients He was of opinion that the higher death rate was due to the effects of the journeying from the patient's home to the hospital, a danger which ought to be met by the employment of properly constructed ambulances

Dr GEORGE MEYER (Berlin) pointed out that as far as the greater towns of Germany were concerned the arrangements for the conveyance of patients were, as a rule, satisfactory

Other papers read before the Congress dealt with the following subjects the Skiagraphy of the Heart, by Dr MORITZ (Munich) and Dr LEVY DORN (Berlin), Pulmonary Syphilis (preparations shown), by Professor VON HANSEMANN (Berlin), Febris Hepatica, by Dr MÜNZER (Prague), the Synthesis of Uric Acid in the Animal Organism, by Dr WIENER (Prague), &c Professor Naunyn (Strassburg) was elected President of the next congress which will be held at Wiesbaden

MANCHESTER

(FROM OUR OWN CORRESPONDENT)

Heaton Park.

IT seems not unlikely that the Corporation of Manchester will repeat the fiasco they succeeded in accomplishing over the Trafford Park Estate As may be remembered, this valuable property was snapped up by a wide awake syndicate while the corporation was soliloquising "to be or not to be" It may be eminently respectable for civic authorities not to be wide awake, but it is unfortunate when the multitude suffers for it Manchester is growing rapidly, extending amœba like, and absorbing every green spot she touches Her weakly, stunted, pallid population of workers lives under conditions not favourable to healthy development It is therefore desirable that the open spaces within reach of the city should not be covered with bricks and mortar, for even if there are many who will not directly visit them they will be benefited by the healthful breezes which sweep over such tracts of land as Heaton Park and carry freshening influences into the streets and lanes of the city This park, of 650 acres, together with the hall and other buildings, has been offered to the corporation for £230,000 The sub committee having the matter in hand was prepared to recommend the corporation "to pay £190,000 for the park, with its buildings, walls, and minerals, and such fixtures and fittings as might be agreed on" This has been declined, Lord Wilton and his advisers considering that the price asked was a low one The sub-committee thought that £190,000 was a full price The week before last the Parks Committee had the matter again under consideration, when two propositions were submitted and rejected The first was that £210 000 should be offered, and the other that the amount should be £200 000 The council at its monthly meeting to morrow, June 5th, is to consider the question again A decision must be arrived at by June 12th, as Lord Wilton's offer is only open till then This is the last opportunity of acquiring a large open space in the immediate neighbourhood of Manchester All have gone but Heaton Park, and if this goes it will be a matter for never-ending regret

Proposed Small pox Hospital for Warrington

An inquiry was held at Warrington on June 1st by Dr Manby, Local Government Board inspector, into the application of the Warrington Corporation for sanction to borrow £9979 for the provision of a small pox hospital at Great Sankey, and £8702 for the extension of the borough infectious diseases hospital The Mayor in his evidence referred to the serious lack of accommodation during the small pox epidemic of 1892-93, which "carried away many valuable lives, laid large numbers of families under serious financial obligations, and cost the borough over £10 000" The infectious hospital was occupied with fever cases, and an old foundry had to be fitted up as a temporary hospital Since that time sites have been visited, and one was decided on, but for various reasons had to be abandoned A provisional agreement has been made to purchase 11½ acres at Great Sankey for £1750 The residents, of course, as all residents do, object to the scheme, mainly, it is said, on the ground that the site is unsuitable, but also because of the danger of infection "from the hospital sewage effluent and the foul air which would be given off by the hospital when in use" In answer to the inspector the opponents of the scheme said they had no alternative to suggest With our semi compulsory, semi voluntary dealing as to vaccination a small pox hospital should be provided not only for Warrington but for many other places

Proposed Cooperative Convalescent Home

It speaks well for the intelligence of the northern section of the Coöperative Union, which comprises the counties of Northumberland, Durham, Cumberland, Westmorland, and the North Riding of Yorkshire, that they should consider seriously the question of providing a convalescent home for their members One idea was to build a home at Rothbury at a cost of £10 000, but in the meantime the Shaws Hotel at Gilsland with adjoining property has been offered for sale by the proprietors to the northern section of the union At a meeting held at Gilsland on June 1st it was agreed that a report on the whole matter should be presented to the societies If the scheme should be carried to completion it is to be hoped that the medical arrangements will be dealt with intelligently. But this north-country association has not been the first in the field. The Coöperative Wholesale Society, which comprises 11,000 retail societies with more than 1,000,000 members, will almost immediately open Roden Hall, near Shrewsbury, as a convalescent home with 40 beds. Miss M. I. Twigg of Walkden, near Manchester, a local nurse, is to be the first matron.

Bequests to Stockport Charities.

By the will of the late Mr. Thomas Hardcastle Sykes £1000 has been bequeathed to the Stockport Infirmary and £500 to the Stockport Institution for the Blind, Deaf, and Dumb.

June 4th.

WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

Swansea Sewage.

IT has been recognised for a long time that a main sewer to deal with a portion of the sewage in the lower part of Swansea is urgently needed and various schemes have from time to time been discussed by the corporation. These have at length been focussed into three definite proposals, in one of which the outfall is in the town at the pier-head and in the other two at Brynmill, a short distance from the more densely-populated portion of the town but quite close to the sands and promenade. The outfall at the pier-head and in one of the Brynmill schemes discharges the sewage into the sea untreated, but in the alternative Brynmill scheme it is proposed to provide for a septic tank between the termination of the sewer and its outfall, though the effluent is not to be subjected to any filtering process or to be made to pass over land. The members of the town council have been very evenly divided in their opinions as to the merits of these three projects, the cost of which does not vary more than a few thousand pounds, for the engineer's estimate in each case is between £70,000 and £80,000. The water and sewers committee of the corporation recommended the adoption of the Brynmill scheme minus the septic tank, but on April 16th the council refused to accept this recommendation and a resolution was carried by 15 votes to 14 in favour of the pier-head scheme. At the same meeting an amendment to this resolution was carried by 17 votes to 12 approving the Brynmill outfall with a septic tank. The advocates of the pier-head outfall thereupon gave notice of motion to rescind this resolution, and a special meeting of the council was held on May 24th for the purpose of coming to a final decision. In the meantime the borough engineer and the medical officer of health (Mr. Ebenezer Davies) reported fully upon the whole question and each official was in favour of the pier-head scheme, the engineer laying stress upon the fact that by its adoption he could more effectually deal with the drainage from a large number of low-lying houses that at present are frequently flooded, and the medical officer of health was evidently influenced in the advice he gave by his desire to preserve the Brynmill sands from sewage contamination, and he very properly insisted that a septic tank alone would not of itself prevent this contamination, but that the bacterial method of purification if adopted at all should be carried out in its entirety. In spite of the advice of their responsible officers the town council decided by 20 votes to 11 to carry the sewer to Brynmill and to discharge the sewage after it has passed through a septic tank on to the sands at low water. There still remains the engineering inspector of the Local Government Board to be reckoned with, and hitherto the policy of the Board has been to require provision to be made for the treatment of the effluent from a septic tank before sanctioning expenditure upon works of this nature, though it is possible that there may be in the local conditions at Swansea circumstances warranting a departure from this policy.

Antitoxin in Poor-law Practices.

The board of guardians of the Pontypridd Union have decided to place antitoxin upon the list of expensive drugs to be paid for by the board and not by the medical officer to the union, and has also decided to reimburse Mr. Jenkin Jenkins, one of the district medical officers, the cost of the antitoxin which he has used in the course of his parish practice during the past few months. Poor-law medical officers are not paid such extravagantly large salaries that they can very well afford to use such an expensive remedy very freely, and diphtheria has been so prevalent in the Pontypridd district during the past year that the necessity for the employment of the serum must have arisen very often indeed.

Western Counties Idiot Asylum, Starcross.

The annual meeting of the subscribers of the Western Counties Idiot Asylum was held on May 25th, under the presidency of Prebendary the Earl of Devon. The report stated that at the end of December last the institution contained 269 inmates, 182 boys and 87 girls. During 1900 there were 44 children admitted; 21 were discharged and four died. The financial statement showed an income of £7812 and a favourable balance of £305. It was unanimously resolved that the title of the institution should be changed to the "Western Counties Training Institution for the Feeble-minded." The change of title seems a wise one, as the institution only deals with those cases of defective intelligence in which there is a reasonable hope of development and improvement.

June 3rd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Edinburgh Town Council and Bacteriology in Connexion with Public Health.

A GOOD deal of feeling is being displayed in several quarters in Edinburgh in connexion with advances which have, as is generally understood, been made by the University to the city authorities with a view to having the bacteriological work connected with public health transferred to the new public health laboratories of the University. To understand the feeling which has arisen it is necessary to state that for years the laboratory of the Royal College of Physicians of Edinburgh did a large amount of reporting on material sent to them by Fellows of the College and their friends, and did this without fee of any kind. Sputum, swabs from cases suspected to be diphtheria, and more recently blood to be examined for Widal's reaction were thus dealt with. The work necessarily grew in amount, and as the laboratory is more a physiological than a pathological one there was a good deal of complaint that it was over-weighted with this reporting work. The demand and indeed the necessity for reports became more imperative and it was thought that work bearing so importantly upon the well-being of the community ought to be done, or at least paid for, by the city. Then followed negotiations between representatives of the College of Physicians and the Public Health Committee of the Town Council. The outcome of these was that the College laboratory was to continue to report and that the city was to pay for each report; but the material for examination was to go through the hands of the medical officer of health of the city, by whom it was to be transferred to the College laboratory. Then it was arranged, if my memory is correct, that part of this reporting was to be done at the City Hospital. Matters got mixed up, and the general impression was that the city was to take over the work and that it was to be done in connexion with the City Hospital. Meanwhile, the University steps in and offers to do this work for a consideration, amounting, it is understood, to some hundreds per annum. The upshot of it all is that there are now three plans before the city authorities—first, to continue to employ the College laboratory; secondly, to keep a laboratory of their own; and thirdly, to hand over the work to the University. The Public Health Committee feel that they can hardly take the work from the College and give it to the University, and yet either would be cheaper than running a civic laboratory. The College is sensitive in view of the work it has already done for the city; the University is always crying, "Give, give"; the public want the cheapest method consistent with efficiency; and some select spirits think that the University department ought not to be hampered with work of the kind, that the professor should be free for original research, and that the professorial emoluments ought not to be increased in this way. Such is practically the position of affairs. One remark it is safe to make and that is that the multiplying of laboratories is a mistake when the great want is money to pay men to work in those already existing. Mr. Carnegie would do incalculable benefit to Scotland if he provided means for this purpose.

Aberdeen Medical Staff Corps

On June 2nd the members of the Aberdeen volunteer company Medical Staff Corps mustered in the grounds of Gordon's College and thereafter attended church parade in St. George's-in-the-West Parish Church, when the Rev. James Smith delivered an eloquent address. The detachment was under the command of Surgeon Captain J. Mackenzie Booth, M D. Aberd, and there were present on parade nine staff sergeants and 94 rank and file.

June 4th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal Medical Benevolent Society of Ireland.

THE annual meeting of the Royal Medical Benevolent Society of Ireland was held on June 3rd at the house of the Royal College of Surgeons in Ireland, Mr. Thomas Myles, the President of the College, being in the chair. Sir John William Moore read the report, which contained copies of the message of condolence sent on the occasion of the Queen's death and His Majesty's letter in reply. Sir George P. O'Farrell moved a resolution of thanks to the committee and officers of the society for their services Sir Charles A. Cameron congratulated the society on its present satisfactory financial position and observed that the expense of administering the fund amounted to only 5 per cent. of the receipts.

Death of Mr. J. K. Gibson, L.R.C.P. & S. Edin.

I have to announce with great regret the death of Mr. J. K. Gibson of Randalstown, co. Antrim. He had felt unwell and was at Belfast on a visit to his cousin, Dr. W. Gibson, J.P. On May 25th, quite suddenly, he was seized with acute illness which culminated in an attack of pneumonia from which he died on May 29th. Mr. Gibson was a young medical man of promise. After qualifying he was for two years house surgeon in the Belfast Union Infirmary, and shortly afterwards he began practice in Randalstown, where, by his tact, judgment, and kindliness, he had built up a good private practice. He was buried at Randalstown on May 31st, a large concourse attending the funeral, a sufficient evidence of the respect that was entertained for him.

The New Equipment Scheme of Queen's College, Belfast.

At a meeting of the Executive Committee of this scheme, held on May 29th, it was announced that, including Dr. P. Redfern's subscription of £500, additional sums amounting to £2775 had been promised.

Ulster Branch of the National Association for the [illegible]

He[illegible] the Town [illegible] large attendance. The Marquis of Dufferin and Ava, who presided, in an interesting speech drew attention to the fact that the mortality from consumption in Ulster was double that of Lancashire and was quadruple that of the healthier counties of Great Britain. Dr. A. P. Hillier (London) delivered an address in moving the following motion:—

> That this meeting appeals to those interested in their fellow creatures to provide a sanatorium on a large scale for the [illegible] suffering from consumptio[illegible] towns and rural districts t[illegible] efficiently inspected, recon[illegible] and Cowsheds Act, and ca[illegible] prevent spitting in mills, f[illegible] companies to put up notice[illegible] and stations.

This was seconded by Professor J. W. Byers, President of the North of Ireland Branch of the British Medical Association, who pointed out that in Belfast about one in every seven deaths was from tuberculosis of the lungs. He thought that the measures for the prevention of tuberculosis might be classified under four heads; (1) the education of the public as to the causes and means of prevention [illegible] (3) [illegible] sup[illegible] [illegible] moved that the name of the association be altered to "The Ulster Branch of the National Association for the Prevention of Consumption." This was seconded by Dr. J. Stewart (surgeon to the gaol) and passed. Office-bearers having been appointed a vote of thanks was accorded to the Marquis of Dufferin and Ava who, in reply, said that he had "seldom had the good fortune to attend a meeting where the speeches had been more to the point or more full of interesting and effective matter. What had been said was calculated to produce the most practical results."

Rainfall in May in Ulster.

The last month (May) has been, it turns out, an exceptionally dry one, only 1 65 inches of rain being registered falling on nine days, as compared with 16 days' rain and a depth of 3 3 inches in May, 1900. The greatest fall in one day was on the 30th, 0 48 inches being the amount. In the five months of 1901 rain has fallen on 70 days to a depth of 12 28 inches, while in the corresponding period of last year there were 82 wet days, with a total depth of 13 86 inches of rain.

A New Experiment in Public-houses.

A new company—"The Ulster Public-houses Trust Company, Limited"—has been established in Belfast the object of which is to apply to inns a principle of administration which will secure that they shall be managed as a trust in the interests of the community and not for private profit. Only the best drinks that can be obtained in the open market will be sold. It will not be in the interests of the manager to push the sale of intoxicants; he will be paid a fixed salary with commission on the sale of food and non-intoxicants and will receive no commission on the sale of alcoholic drinks. The inns are to be refreshment houses and not "drinking-bars." Food and non-intoxicants will be supplied as readily as intoxicants and during the same hours. The surplus profits, after allowing a sufficient sum for depreciation, reserve, and interest, not exceeding 5 per cent. on the invested capital, will be administered by carefully selected trustees for the benefit of the community. These methods have already been tried in England, but this is the first time that they have been introduced into Ireland, the idea being that reform, rather than abolition, must be the aim of sound temperance policy. The first inn, "The Crown and Shamrock," was opened last week in the neighbourhood of Belfast at a village called Carnmoney, a convenient cycling run from Belfast, and it is hoped that this new experiment will be a success. Another inn conducted on similar lines is, I hear, to be opened shortly in Belfast.

Health of Belfast.

Between April 21st and May 18th, 1901, 300 cases of zymotic disease have been notified—viz, 129 cases of typhoid fever, 83 of simple continued fever, 30 of scarlet fever, 83 of erysipelas, 15 of diphtheria, six of typhus fever, four of membranous croup, three of small-pox, and two of puerperal fever. There were 76 deaths from zymotic disease, 103 from phthisis, and 105 from diseases of the respiratory organs. The annual death-rate was 21 1 from all causes; for children under one year old it was 4·4, and for persons of 60 years and upwards it was 3 6 per 1000 of the population. Three cases of small-pox occurred and one death—a woman who came from Paisley a week previously to becoming ill. All the cases were promptly isolated and it is most satisfactory to report that the disease has been stamped out. Considering the close intercourse between Belfast and Glasgow it is remarkable and fortunate that Belfast has so far escaped so well. In the discussion in the city council on this report of the public officer of health one of the members complained that the zymotic death-rate of Belfast was far too high. He thought that measles should be a notifiable disease and suggested that something should be done in the way of voluntary notification of tuberculosis.

Death of Dr. W. T. A. Scanlan, Senior Assistant Medical Officer of the Cork District Lunatic Asylum.

The announcement of the death of Dr. Scanlan came as a painful surprise to many of his friends early last week. He was attending to his ordinary duties on May 24th, but that evening symptoms of acute obstruction of the bowels developed themselves. Several of his medical brethren came to his assistance and laparotomy was performed on the 26th, but he succumbed the following day after an illness lasting barely three days. Dr. Scanlan, who was only 33 years of age, was cut off in the prime of life His genial, kindly manners endeared him to all with whom his duties brought him in contact, and the large gathering of representative citizens present at his funeral testified to the high esteem in which he was held. He was educated at the Queen's College, Cork, and displayed talents of an order calculated to reflect credit on his native city. His funeral was one of the largest which has passed through Cork for a considerable time. It was attended by a large number of clergymen of various denominations. Forty of the uniformed attendants of the asylum marched in the procession, followed by 30 of the female attendants. The medical profession was very largely represented and several of the governors of the asylum were there to testify by their presence their high appreciation of the manner in which Dr. Scanlan had at all times discharged his onerous duties. It was well known to his medical brethren and amongst the public generally that he was engaged to be married at an early date to one of the lady nurses of the asylum, and that fact lent much pathos to the all-too-early cutting off of a brilliant career. Prior to the starting of the mournful *cortège* the asylum band assembled in the little chapel of the institution and played the Dead March in *Saul*. Several public bodies, amongst them the Cork Medical and Surgical Society, passed votes of sympathy with the relatives of the highly respected and esteemed deceased.

June 4th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

League for the Repression of Syphilis.

PROFESSOR FOURNIER has just made the preliminary arrangements for the foundation of a league against the propagation of syphilis and venereal diseases—a league for which he particularly invites the support of medical men. In a lecture delivered at the reopening of his course he reminded his hearers of the urgent necessity for further attention to the prophylaxis of syphilis, which for the last 10 years has been increasing in an alarming degree, since it is found in the proportion of 15 per cent. among hospital patients. Moreover, the manifestly growing tendency of syphilis to result in parasyphilitic conditions, such as tabes, general paralysis, and buccal leucoplasia—a disease predisposing to cancer—gives it a serious aspect which it did not formerly possess. Syphilis is, therefore, like tuberculosis and alcoholism, a scourge against which it is urgently necessary to protect society. The measures on which the league will rely will be of three different kinds—namely, moral and religious, administrative, and medical. The moral and religious part of the programme will aim at the purification of morals and the encouragement of early marriage and will be committed to the priest, to the Protestant clergyman, to the rabbi, and to persons of both sexes engaged in educational work, so as to counteract the pernicious influence exerted on the young brain by novels and theatres. In the administrative direction the league will endeavour to bring about a strict supervision of prostitutes who display themselves in public, because the granting of permission to entice persons as they walk along the street and eventually to infect them with syphilis is as unreasonable as the granting of permission for a mad dog to be at large. This interference of the authorities is the more legitimate because venereal diseases are especially observed among unregistered prostitutes, even in a proportion which may rise as high as 48 per cent., according to the most recent statistics of M. le Pileur. More than this, syphilis attacks persons who do not voluntarily expose themselves to it, such as women living connubially, wet-nurses, and children, whose only protection lies in the measures taken by the authorities. But in this work of protection the hospital must be in place of the prison and the policy adopted must be humanitarian. Another object of the league will be the closing of a certain class of places where beer and wine are sold and which are dangerous centres of infection. The unfortunate women in these establishments ought not to be sent to prison but ought rather to be admitted to charitable homes and training schools. Medical prophylaxis will be realised by the creation of dispensaries and the giving of advice at all times, so as to avoid the conditions which too often prevent patients from resorting to hospitals, such as crowding, loss of time, commingling of different classes, and the public acknowledgment of illness. In these dispensaries medicines must be given free of charge, for it is found that patients may sometimes be compelled by poverty to neglect the treatment prescribed for them and to develop irremediable lesions. It will also be necessary to watch over the prevention of syphilis in the army and to undertake the still more delicate and important duty of instructing the public on the subject of venereal diseases and the mischiefs which they cause. In presence of such a scourge there must be no hesitation in departing from the *reserve* imposed by modesty—a reserve which is particularly dangerous. Notwithstanding the obstacle presented by the state of current public opinion youths on reaching their eighteenth year ought to have the requisite knowledge imparted to them, and meetings for this purpose ought, if necessary, to be held in the *lycées*. The question whether similar instruction should also be given to young girls is a more delicate one, but Professor Fournier leans towards the view that it may be answered in the affirmative. The business of the first meeting of the league will be the discussion of this question and the expression of a formal opinion.

Music and Surgical Anæsthesia

At a meeting of the Academy of Medicine, held on May 14th, M. Laborde explained the part which he thinks that musical sensations are destined to fill in surgical anæsthesia. It is a well-known fact that patients under the influence of nitrous oxide often exhibit psychical manifestations of terror accompanied by screams and struggles Having ascertained that these phenomena of terror always have for their origin external noises of greater or less intensity, such as those caused by vehicles, M Drosner, a dentist, has had the idea that during anæsthesia harmonious sounds produced by a phonograph might be substituted for casual noises. Of course, no sensation of pain was experienced during the dental operations performed under these conditions, but in addition to this all the patients asserted that during the whole of the proceedings they were conscious of the charm of the music and were free from dreaming and nightmare. These results may be easily explained. The question, in fact, is one of a psycho physiological influence exerted directly on the centres for musical sensations, and these latter modify in a favourable manner the psychical action of the anæsthetic, substituting the influence of a musical dreamy state for that of a terrifying one. This method may, perhaps, be extended to surgical anæsthesia in general, even in combination with anæsthetics such as chloroform and ether, the action of which on the cerebral and psychical centres often produces, as is well known, manifestations which disturb the surgeon in his work.

An Injustice to the Medical Profession in France.

The medical profession in France, upon which encroachments have so often been made by recent legislation, is threatened with a new danger. The Government has increased the burdens of medical men by raising the fees payable for their *patente* and by taxing their carriages and consulting-rooms as if they were outward and visible signs of affluence, and now it seems that the Government is about to adopt a policy which will have the effect of reducing the number of the patients upon whom medical practitioners depend for their livelihood. By each new law and at each administrative appointment it is stipulated that medical attendance shall be given free of charge. The Government sees that a few eminent surgeons make large fortunes rapidly—a thing which happens in every part of the world—and on this ground it appears to assume that all the medical men in the country, even those who practise on a modest scale in villages and find it difficult to live by their profession, are possessed of ample private means. The Chamber of Deputies has just supplied an example of this mistaken view. The Minister of War had observed with regret the increasing diminution in the number of the military officers of the reserve; resignations were becoming more frequent every day, while at the same time applicants for the vacant places were fewer. The real reason of the distaste which the officers of the reserve feel for the service depends, as everybody knows, on the useless annoyances that the Government inflicts on them by calling them out too often for manœuvres without taking into account the accompanying interference with their occupations in private life and by placing them in positions which expose them to the rudeness of the professional officers who treat them without any consideration, by frequently ordering useless and expensive changes of uniform, and finally by treating them unjustly in the bestowal of crosses and awards which the law has set apart for the officers of the reserve and which the Minister diverts from their proper destination for the benefit of the professional officers In place, however, of acknowledging these well founded grievances of the officers of the reserve and abating them, the Minister has endeavoured to create in favour of the officers of the reserve new advantages which may retain them in the service. But it is at the expense of the medical profession that the new privileges have been created, for it has been decided that the officers of the reserve and their families shall be entitled to receive free medical attendance from the surgeons of the regiment stationed in the towns where they live. The mutual aid societies and the law as to free medical attendance have disposed of the patients who used to pay small fees, and the new order means that from 30,000 to 40,000 families, all belonging to the well-to-do middle class, will now spend nothing on medical advice, a change which will be severely felt by many practitioners The medical unions are protesting energetically against this new privilege, with which is combined the right of travelling over all railways at very reduced fares. The Chamber has not yet been called on to discuss the proposal, but the time is not far off, and there is nothing to show that the unlucky medical men will not once more be victims of Governmental reforms.

June 3rd.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Proportion of Physicians to the Population

THE census relating to physicians indicates the possibility, if not the actuality, of overcrowding in the medical profession. It was found in the census year that there was one registered physician to every 655 people in the United States That this number is in excess of the need is evidenced by a comparison with Germany, where in 1898 there was only one physician to every 2114 inhabitants, or relatively about one-third as many as in the United States. Medical men are more plentiful proportionately in some States than in others; in California there is one physician to every 416 inhabitants and in North Carolina one for each 1189 of the population. Even in States geographically connected and similar as to conditions there is a wide disparity as to the number of practitioners. The State of Michigan has one medical man to every 570 of the population, but in Wisconsin there are 936 inhabitants to each physician, and in Minnesota there are 1004 people to each practitioner. Massachusetts has more physicians proportionately than the adjoining States of Connecticut and Rhode Island; New Hampshire and Maine have much the same proportion as Massachusetts; but Vermont finds employment for a considerably larger number of medical men.

Excessive Use of Narcotics.

Professor Grinnell of Burlington, Vermont, has been making an investigation into the use of narcotics in that State. He found that in the regular drug stores and in 160 of the 172 general stores of the State there are sold every month 33,000,000 doses of opium, besides what is dispensed in patent medicines and besides what the medical men prescribe, which gives one and one-half doses of opium to every man and woman in the State above the age of 21 years every day of the year. By dose he means one grain of opium, one-eighth grain of morphine, one-half ounce of paregoric, and 20 drops of laudanum. The amount consumed each month means a half dose for each man, woman, and child in the State every day of the year. This statement is based upon facts and is conservative; where information was refused no estimate was made, and the scale of the consumption would be larger if all the sales could be tabulated. No explanation of this undue use of narcotics is offered, but it is ascribed in large part to the difficulty of obtaining intoxicants in towns where the prohibition laws are enforced.

A Plea against Ambidexterity.

In an address before the Illinois Society for Child Study Professor Smedley, who is director of the Chicago Department of Child Study and Pedagogic Investigation and who holds views radically different from those entertained by many physicians, said that teaching ambidexterity was teaching contrary to the laws of life When they went beyond nature and attempted to teach left-handed people to use the right hand they were making a mistake. Ambidexterity was likely to interfere with a child's best method of development and might cause the loss of speech. In his investigations on the subject he had discovered that a surprisingly large number of the children whose speech was defective were left-handed. Out of the 30 children of defective speech who came to the laboratory 12 were left-handed—that was, about 40 per cent. Several said, "When my mother learned that I was left-handed she made me carry my arm in a sling." Professor Smedley concluded with the remark that interference with the free use of the left hand interfered with the development of the power of speech, and that he believed that strong unidexterity is the natural and ideal condition.

Reckless Driving of Ambulances.

New York streets are now so frequently the scene of accidents from carelessly driven ambulances that protests are often made against them. A recent number of a medical journal contains an article by a local physician, relating an occurrence which he saw, as illustrating the danger of reckless driving and deprecating this haste as often quite unnecessary, the patient not requiring instant service. On this occasion Fifth avenue was crowded with pedestrians and vehicles when an ambulance rushed down the street, clanging its bell and approaching a baker's wagon so closely that to avoid an accident the driver ran his horse on to the sidewalk, thus imperilling the lives of those walking down the avenue. The latter wagon had just recovered its balance enough to proceed on its way when the ambulance driver lashed his horse and plunged after the baker, and, overtaking him, settled the matter with words. It was ascertained later that the patient had sustained "laceration of the arm" and that this terrific speed was not necessary. With the multitude of vehicles of various kinds that throng many of the streets this is a serious matter and one which requires the attention of the authorities.

Tuberculosis in Prisons and Reformatories.

The subject of tuberculosis in prisons is exciting much interest The secretary of the State Board of Health of Indiana, Dr. Hurty, speaking of the Indiana State Reformatory, says: "This reformatory is in reality a prison for males, but no one over 30 years of age is confined here. In 1899 the Legislature appropriated a quarter of a million dollars to build a new cell-house, containing 600 cells. During the construction of this building it was necessary to provide for the prisoners in the old cell-house, and temporary forced ventilation was provided. A space, however, formerly intended for 200 is now crowded with almost 600, and the consequence is a rapid increase in tuberculosis. There are now not less than 200 cases of this disease, all forms of which abound. Meningitis has killed a few and general tuberculosis is very common." *Charities*, the official organ of the Charities Organisation Society of the city of New York, devoted its January number to the consideration of the prevalence of this disease in the Elmira Reformatory in New York State The board of managers of this institution report for the year ending September as follows: "For a number of years tuberculosis has been an increasing and dangerous feature among the inmates of the Elmira Reformatory. Many arrive with it, in a more or less advanced stage; others develop it under the trying conditions of prison life, with cellular confinement, association with those already affected, and all unite in communicating the subtle and poisonous infection to their clothing, their bedding, and the air of the cells and corridors." The management further became convinced, by careful scrutiny extending over many months, that prisoners, healthy upon arrival, became affected, and sometimes with astonishing rapidity, by the disease, from being steadily confined in the same cell with a tuberculous subject. Inquiry proved that thus far, as concerned this disease, no direct classification had ever been made, and that no orders existed, nor was it the practice of the authorities to exclude from the ranks of the employés such persons as came from families where this disease prevailed, or the other infectious diseases, diphtheria, scarlet fever, measles, and similar complaints. This agitation will doubtless lead to some active measures being taken to reduce this danger to its lowest possible point. Sing Sing Prison also reports cases of tuberculosis.

Compulsory Vaccination Sustained.

The Supreme Court of Pennsylvania recently rendered a decision sustaining the ruling of a lower court that an Act to make the vaccination of children a prerequisite to admission to the public schools is constitutional and valid. "We think," the opinion holds, "that the court below did not err in the ruling referred to in the assignments. In Duffield *v.* Williamsport School District we held that school directors, in the exercise of a sound discretion, may exclude from the public schools pupils who have not been vaccinated. Whether a resolution excluding from the school pupils who have not been vaccinated is a reasonable one is to be judged of in the first instance by the school directors. In the present state of medical knowledge and of convincing opinion of those having charge of the public health the courts will not say that such a resolution is an abuse of official discretion."

May 29th.

SWITZERLAND.

(FROM OUR OWN CORRESPONDENT.)

Bernese Sanatorium for Tuberculous Patients.

DR. KAESER publishes the following details with regard to the results obtained in 1899 at the Bernese Sanatorium for Consumptives at Heiligenschwendi. As regards admission he classifies the patients with respect to slight, medium, and severe affections of the lung. In discharging them he also establishes three classes. Avoiding the term "cured," he classifies those cases as "much improved" in which all rhonchi have disappeared, the cough and expectoration have ceased, and complete capability for work can be expected for a long time; as "better," cases with slight remaining non-crepitant rhonchi, but where the capability for work for a lengthened period of time seems doubtful; and, lastly, "cases not improved." The result in the 352 cases of the year he tabulates as follows. Of the slight cases 63 per cent. were much improved and 31 per cent. were improved, whereas of the cases of medium severity of the affection only 24 per cent. were much improved and 57 were improved. This proves the great desirability of patients being sent there in the first stage of consumption. The results in cases of children are exceptionally good; this coincides with Dr. Hurlimann's experiences in his private sanatorium at Aegeri in the canton of Zug. The sanatorium of Heiligenschwendi was opened in 1895 as the first sanatorium on the continent for poor tuberculous patients, and has up to now accommodated over 1600 patients The definite results from a practical point of view are very encouraging, as 70 per cent of the discharged patients were fit to resume their usual occupations.

Medical Pauperism

That the battle of life with its dire consequences, both for the public and for the medical profession, rages even in Switzerland in country districts may be gathered from an advertisement published in a local paper in which a duly qualified German lady (with a Swiss diploma) announces that she gives medical advice at her office daily from 8 to 10 A.M. and from 12 30 to 3 P.M. for the moderate charge of 5*d.*, including medicine. Charges for visits at the patient's house, including medicines, increase up to a maximum of 1*s* 8*d.*, according to the distance.

Zürich, May 31st.

SOCIETY OF MEDICAL PHONOGRAPHERS.—This society will hold its next annual shorthand examination early in May, 1902 Two prizes will be offered, each of the value of £5, one for first-year students and one for students of more than one year's standing. The competition will be open without entrance fee to any registered medical student in the United Kingdom who has not taken a first prize at one of the society's previous examinations. It will be held simultaneously in London, Edinburgh, Dublin, and at any provincial medical centre in the United Kingdom at which not fewer than three candidates shall offer themselves. Intending candidates should send in their names as early as possible to Dr. P. G. Griffith, Bonhams, Hayward's Heath, Sussex, who will furnish them in return with a detailed prospectus of the examination. The latest date for receiving entries will be April 15th, 1902.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

◆

THE seventy-first session of the General Council of Medical Education and Registration promises to be of shorter duration than some recent sessions. At any rate, members are anxious that this should be the case, and if we may judge from the experience of the first two sittings they are likely to succeed. One consideration that weighs with them is that long sessions mean heavy charges and the finances of the Council at present are not too flourishing. Another is that a considerable number of the Members wish to be free on Wednesday to attend the celebration of the ninth Jubilee of the University of Glasgow. As a matter of fact, the Council in its corporate capacity has deputed its President and Senior Treasurer to attend the celebration and to present an address of congratulation.

There are two changes in the *personnel* of the Council on this occasion, happily neither of them due to the hand of death. After a service of a quarter of a century Mr. T. Pridgin Teale has retired and in his place the Crown has nominated Sir John Williams, who may be depended on to do useful work, while Sir Dyce Duckworth has made way for Dr. Norman Moore in the representation of the Royal College of Physicians of London. Sir Dyce Duckworth will be especially missed in connexion with the work of the Examination Committee, of which important body he was for many years chairman.

Since the University of Birmingham was admitted to representation the Council has consisted of 31 members, and it is satisfactory to find that number in attendance Dr. D. C. McVail was detained in Glasgow on the first day of the session, but the second sitting saw him in his accustomed place.

A deputation appointed by the signatories to the memorial on the subject of the employment of unqualified pharmacists by medical practitioners in Glasgow and the west of Scotland was in attendance for two days but was declined a hearing. The sense of the Council seemed to be that if it received the deputation it might prejudice certain fresh cases in this connexion now before the Penal Cases Committee, and further that the statement made from the chair in the Airdrie case ought to go a long way towards allaying the apprehensions of the memorialists.

The Council is in full swing of work and though its programme is loaded with questions of much delicacy and difficulty a great attempt will be made to bring the session to a conclusion not later than Monday next. The questions which take up most of the time of the Council are questions of discipline, in which it is, of course, impossible to proceed with haste. In view of economising time it is a great point gained that the penal cases have been brought forward on the second instead of on the third day of the session and are being disposed of without any undue delay.

The case of Dr. H. W. Irvine came first before the Council on Wednesday. Unfortunately Dr. Irvine did not appear, pleading another engagement. The Council determined not to proceed with the further consideration of the case without his presence or without giving him a further opportunity of attending.

The important case of Dr. John Martin Thomson was disposed of on Wednesday. The Council came to the conclusion, on Dr. Thomson explaining that he had dismissed his unqualified assistant and entirely submitted himself to the judgment of the Council, not to proceed further in the case. The President made it very clear in his remarks that the Council in its judgment of Dr. Thomson's conduct had reference solely to the sale of scheduled poisons by unqualified assistants Many practitioners in Scotland feel strongly on this question. Perhaps they think that the Council has in its purview a more serious interference with the customs of practitioners in Scotland than is actually contemplated, and it is perhaps a pity that the Council did not see its way to receive a deputation which has actually been sent to London on the subject

---

Three cases in which dentists were charged with advertising in various ways were taken together by the Council on Wednesday afternoon. The Council accepted the facts as found and reported by the Dental Committee In this way the three cases were disposed of in less than half an hour; the persons complained of promising to abandon the practices in question. The cases are representative of a certain class of offenders, and should serve as a warning to the whole dental profession, or rather to that large section of it which is still far below the standard of a profession in their methods for attracting practice.

The improved pace of the dispatch of business is illustrated in the fact that by Wednesday evening the Council had disposed of motions referring to the application of Part II. of the Medical Act of 1886 to Italy and to the case of Malta.

TUESDAY, JUNE 4TH.

The seventy first session of the General Council of Medical Education and Registration was opened to-day in the Hall of the Council, Oxford-street, London, W. All the members were present except Dr. McVail, who wrote saying that he was detained in Glasgow but hoped to be with the Council on the next day. Sir WILLIAM TURNER, President of the Council, occupied the chair.

Introduction of New Members.

Dr. NORMAN MOORE was introduced as the representative of the Royal College of Physicians of London and Sir JOHN WILLIAMS as a Crown representative. Both gentlemen were welcomed by the President before taking their seats.

The President's Address

The PRESIDENT began his address by referring to the lamented death of Her Majesty the late Queen and recalled the fact that an address of condolence was forwarded by the Executive Committee of the General Medical Council, on behalf of the Council, to His Majesty the King. He then passed on to mention the loss which the Council had sustained by reason of two members not having sought re election. Those were Mr Thomas Pridgin Teale, a Crown member, and Sir Dyce Duckworth, appointed by the Royal College of Physicians of London. In succession to the former Sir John Williams had been appointed and in succession to the latter Dr. Norman Moore Passing to matters which had arisen during the recess the President referred to the deputation from the Council received by Mr. Walter Long, President of the Local Government Board, concerning death certification, a correspondence with the Lord Chancellor upon the subject of companies practising medicine, and an interview with Sir Richard Jebb about the Penal and Disciplinary Bill promoted by the Council. The Minister and the Lord Chancellor replied in the usual official form that the several matters would have their careful consideration and Sir Richard Jebb promised to look after the Council's Bill. The President continued:—

Early in the Parliamentary session I asked Sir Richard Jebb, who introduced last year into the House of Commons the Penal and Disciplinary Bill promoted by the Council, if he would again take charge of the measure and he kindly acceded to my request. It must, however, be obvious to all of us, from the state of Parliamentary business, that there is little, if any, probability of private members obtaining for their Bills a place in the Statute Book during the present sitting.

The Council will recollect that a year ago the Privy Council intimated that at the proper time they would be prepared to advise His Majesty to apply Part II of the Medical Act, 1886 to Italy. In March of the present year we received from the clerk to the Privy Council a letter to inform us that His Majesty in Council had ordered, directed, and declared that the second part of the Medical Act, 1886, shall be deemed to apply to the kingdom of Italy. Early in the year a communication was received from the Privy Council on the subject of the extension of Part II. of the Medical Act to Malta I brought the communication before the Executive Committee in February, who directed that it and the accompanying documents should be remitted for report to the Education Committee In consequence of a further letter from the Lord President of the Council, in which we were told that the Colonial Office were pressing His Grace for an early decision on the application of the Maltese Government, I consulted the chairman of the Business Committee, and it was arranged that I should supply the Privy Council with a copy of the draft report which had been prepared for the Education Committee. In presenting the draft report I pointed out that the Education Committee had not yet formally approved of it and that it had not been submitted to the Council The Committee will during the present Session present their report on this subject As a result of the important services rendered to the empire by our colonies in the war in South Africa, and of the War Office having been unable to accept the professional services of surgeons of high standing in Canada who had volunteered, on the ground that it was contrary to the Medical Act of 1858 to permit a surgeon with colonial qualifications to attend professionally to British troops, a Bill to remove this disqualification, entitled Medical Act (1858) Extension Bill, was introduced by General Laurie into the House of Commons and was ordered to be printed on Feb. 22nd. The Bill proposes that there shall be added to Schedule A of the Act of 1858 a paragraph to provide that the provisions of the Medical Act shall apply to a Doctor, or Bachelor, or Licentiate of Medicine, or Master in Surgery, of any university or medical school in the empire at which the education and examination are regarded by the General Medical Council as equivalent to those demanded from candidates for the diplomas of the bodies in the United Kingdom specified in that schedule. A copy of this Bill was transmitted by the Lord President at the end of February to the office for the information of the Council and for any remarks they may desire to offer.

In view of the delay which would necessarily be experienced before the Council could meet, I prepared and forwarded a memorandum on the Bill in which I pointed out that Part II. of the Medical Act, 1886, subject to the issue of an Order by the King in Council, provided a machinery for the registration of qualifications obtained in a colony or British possession which in the judgment of the General Medical Council could be recognised as furnishing a sufficient guarantee of the possession of the requisite knowledge and skill for the efficient practice of the profession, and that this privilege was dependent on the Colony granting in return privileges of practice to British registered practitioners as to His Majesty may seem just. The Medical Act Extension Bill, however, did not propose to confer such privileges of practice in the colonies on the registered practitioners of the United Kingdom, and although the memorandum by the promoter in explanation of the Bill seemed to imply that its only object was to enable colonial practitioners to be admitted to the naval, military, and civil services of the Crown the enacting clause would have put them for all purposes of practice on the same footing as those who hold qualifications from the bodies specified in Schedule A of the Act of 1858.

Various questions [illegible] to the Council by the University [illegible] ferred to committees. The ques[illegible] veen friendly societies and the medical profession would come before the meeting. The inspection and visitation of the final examinations of the Scottish and Irish corporations had been begun. The President continued —

In conclusion, gentlemen, permit me to state that on Wednesday, June 12th, an important function is to commence at the University of Glasgow—viz, the celebration of its ninth jubilee. As the function has an especial interest to the Scottish Members of Council, several of whom, as well as other Members of Council, desire to be present, and as in response to a communication from the University of Glasgow that the Council should send delegates to take part in the celebration the President and Senior Treasurer were asked by the Executive Committee to be the delegates and to present the congratulations of the Council, I would express the hope that the Council may be able to complete the business on our programme on or even earlier than Tuesday, June 11th, so that the Treasurer and I may be in Glasgow to take our place when the addresses from public bodies are being presented.

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, the President was thanked for his address.

The Business Committee.

On the motion of Dr. PAYNE, seconded by Dr. PETTIGREW, the following members were appointed to constitute the Business Committee—viz., Dr. MacAlister (chairman), Mr. Bryant, Dr. Bruce, and Sir Christopher Nixon.

Address to the King.

Mr. H. E. ALLEN, the Registrar, read the following report from the Executive Committee, viz.:—

The Executive Committee at their meeting on Feb 26th, 1901, were of opinion that as the General Council would not be in session for a considerable time, an address to His Majesty the King expressing condolence on the death of the late Queen and congratulation to His Majesty on his accession, should be at once presented by them on behalf of the General Council.

The Committee accordingly authorised the President and the Chairman of the Business Committee to prepare a suitable address, which was forwarded to the Home Office on March 14th, 1901, as follows:—

General Council of Medical Education and
Registration of the United Kingdom,
299, Oxford-street, London, W.

May it please Your Majesty.

We, the President and Members of the Executive Committee of the General Council of Medical Education and Registration of the United Kingdom, humbly tender to Your Majesty on behalf of the General Council the expression of our heartfelt condolence in the great sorrow which has befallen the Royal House through the lamented decease of Her late Most Gracious Majesty Queen Victoria. That grief is shared by all classes of Your Majesty's subjects, but by none more deeply than by the members of the profession of medicine to which we belong, and with whose highest interests we have the honour to be charged. We recall with profound thankfulness to the Almighty that during the beneficent reign and under the fostering care of Her late Majesty the art and science of medicine have made unprecedented advances, which have borne inestimable fruit in the amelioration of the public health and the safeguarding of human life And we gratefully cherish the remembrance that by many gracious acts of Royal favour our late beloved Sovereign manifested her enlightened interest in and appreciation of the efforts put forth by our profession for the promotion of the welfare of her subjects.

We desire, moreover, in all respectful loyalty and duty to give utterance to the unfeigned satisfaction with which we hail Your Majesty's happy accession to the Throne of these realms. We rejoice to know that Your Majesty has in the past been pleased to honour the profession of medicine by assuming a personal connexion with more than one of the ancient corporations which are represented in our Council, and that Your Majesty has ever evinced a wise and effectual interest in all that concerns Your people's health.

We pray that it may please Divine Providence long to preserve to the Empire Your Majesty and Your Gracious and beloved Consort, and to grant to Your Majesty's reign the blessings of peace, prosperity, and progress in the arts that conduce to the elevation of the national life.

We have, Sire, the honour to be,
Your Majesty's most dutiful and loyal subjects,
For the Executive Committee of the General Council of Medical Education and Registration,
WM. TURNER, President.
DYCE DUCKWORTH, } Treasurers.
THOMAS BRYANT, }
DONALD MACALISTER,
Chairman of the Business Committee.

The receipt of this address was acknowledged on April 2nd, 1901, as follows:—

Home Office, Whitehall, April 2nd, 1901.

SIR,—I am commanded by the King to convey to you hereby His Majesty's thanks for the loyal and dutiful address of the President and Members of the Executive Committee of the General Council of Medical Education and Registration of the United Kingdom expressing sympathy on the occasion of the lamented death of Her late Majesty Queen Victoria, and congratulation on His Majesty's accession to the throne.

I am, Sir, your obedient servant,
CHAS. T RITCHIE.

The Registrar, General Council of
Medical Education and Registration.

The Council adopted the report.

The University of Glasgow and its Jubilee.

The Council adopted the following report of the Executive Committee—viz.:—

The Executive Committee recommend that the following address to the University of Glasgow, in connexion with the celebration of the four hundred and fiftieth year of its foundation be adopted by the Council and presented by the President and Treasurer —

We, the President and Members of the General Council of Medical Education and Registration of the United Kingdom, present our hearty congratulations to the University of Glasgow upon the celebration of the four hundred and fiftieth anniversary of its foundation.

The University and the General Medical Council have for more than 40 years been closely associated in the common purpose of improving medical education and of raising the standard of medical examination. Empowered by statute to elect a representative on the Council the University [illegible] taken a dire[illegible] bodies in t[illegible] curriculum shall be full and adequate

The Medical Council rejoices to see that the University of Glasgow, though crowned with the venerable dignity of age, retains the freshness and vigour of youth, and it expresses the earnest hope that the services rendered by the University in times past to the advancement of literature, philosophy, science, and medicine may be continued and maintained throughout succeeding centuries.

Sir WILLIAM GAIRDNER said that he was quite sure that the University of Glasgow would receive an address so excellently worded as this with very great pleasure.

Results of Examinations.

The REGISTRAR presented a series of tables showing for 1900 the results of professional medical examinations, of examinations for diplomas in public health, of dental examinations, and of preliminary examinations, also the results of competitions in February, 1901, for commissions in the medical staffs of the navy and the army. The table with regard to professional medical examinations showed that during 1900 there were for the first examination 1307 rejections and 1628 passes, for the second examination 1234 rejections and 1918 passes, and for the final examination 1318 rejections and 2415 passes. The table with regard to public health examinations showed that during the year there were for the first examination 43 rejections and 107 passes, and for the second and final examination 16 rejections and 107 passes.

Mr. VICTOR HORSLEY called attention to a table headed "Table showing the number of exceptional cases that occurred during the year 1900 in regard to length of course of professional study, together with a statement of the action taken thereon by the several licensing bodies." This table, as he explained, was a perfect blank, and he did not think that it should be entered on their minutes. He moved to this effect.

The motion was rejected by the Council.

Dr. BRUCE moved that the whole of the tables be referred to the Examination Committee for their consideration.

Sir HUGH BEEVOR seconded this motion, saying that in his opinion the tables should always be submitted to the Examination Committee before being presented to the Council.

Mr. BRYANT said that these tables were sent for the information of the Council, and no doubt in course of time a review of them might be of value and enable them to draw deductions. But to consider each table as it was presented would, in his opinion, be an utter waste of time He suggested that the members who were interested in the tables should give them their personal attention and extract from them material which could be presented to the Council,

The motion of Dr. Bruce was rejected by 14 to 18 votes.

West of Scotland Practitioners and the Sale of Drugs and Poisons.

The REGISTRAR presented the following report from the Executive Committee, viz.:—

The Executive Committee have, in accordance with Standing Order VII, 16, examined a memorial from certain medical practitioners of Glasgow and the West of Scotland. It contains arguments of a general kind bearing upon a particular adjourned case now before the Council, and does not purport to convey further facts and evidence relevant to the present stage of these judicial proceedings. The Committee after consultation with the legal advisers are of opinion that the memorial should not in the present circumstances be received by the Council.

The particular case referred to is that of Dr. John Martin Thomson, of Clarkston, Airdrie, who in December, 1900, was charged, "That he being a registered medical practitioner habitually employs as assistants for the sale of drugs and poisons persons who are not qualified to act as chemists or pharmaceutical assistants and thereby causes such persons to commit breaches of the Pharmacy Acts." In December the Council found that this charge had been proved and adjourned the further consideration of the case until the present session.

Dr. MACALISTER moved that the report be received, entered on the minutes, and approved by the Council. The memorial, he said, was in the nature of a petition and was signed by a large number of persons, and it fell to the Executive Committee to examine it and to advise the Council upon it The Committee were warned that it was not in any sense desirable that the memorial which dealt with the general question should be taken up by the Council until the particular case had been settled.

Dr HERON WATSON seconded the motion.

[illegible] said that while he bowed to the opinion of the [illegible] w he [illegible] pro- [illegible] uncil [illegible] tion. The Council was taking a course which probably it would regret

Mr. BROWN said that the memorial was of considerable importance and should not be thrown aside. When the particular case was before the Council last session he asked the legal advisers whether it did not raise a new point.

The PRESIDENT, interrupting Mr Brown, said that he could not argue the case on the present occasion. All that was before the Council now was whether or not they should receive this memorial and a deputation.

Mr. BROWN explained that his feeling was that they should first deal with the particular case and that thereafter they would be in a position to say whether they should receive the deputation. He hoped the Council would not put the memorial aside.

Dr. MACALISTER said that all that the Executive Committee recommended was that the memorial should not, in the present circumstances, be received.

Dr. GLOVER said that apart from the particular case there were rights and duties of medical practitioners at issue [illegible] wished to present a case to this Council. Whether he agreed or not with their case was another matter, but he wished to hear the case stated. These petitioners were quite within their right in approaching the Council and asking to be allowed to present their views upon a general principle, and it appeared to him that the motion now moved was practically saying to them that the Council would not listen to them.

Dr. HERON WATSON said that the motion was a mere carrying out of the standing orders of the Council. The memorial was not competent just now because the particular case was *sub judice*. Whenever this case was finished the matter entered upon an entirely new phase.

Sir CHRISTOPHER NIXON expressed the view that it would be a singularly inopportune time for the Council to take into consideration the memorial immediately after deciding the particular case. The practitioner who appeared before them in the particular case would [illegible] have the opp[illegible] sentative, to [illegible] in this memo[illegible] all these arguments the Council would come to its decision.

The motion of Dr MACALISTER was carried by a large majority.

Medical Aid Associations.

On the motion of Dr. MACALISTER, seconded by Dr. GLOVER, it was resolved to receive and to enter on the minutes the following communication (remitted to the General Council by the Executive Committee) from the British Medical Association in regard to the question of a proposed Conciliation Board:—

British Medical Association, General Secretary's Office,
429, Strand, London, W C, May 20th, 1901.

DEAR SIR,—At a meeting of the Council held on the 17th ult. a resolution was passed upon the report of the committee appointed to confer with the friendly societies upon the question of a proposed Conciliation Board.

I shall be glad to hear from you when it will be convenient for the General Medical Council to receive a deputation.

I am, yours faithfully,
FRANCIS FOWKE, General Secretary.
The Registrar, General Medical Council.

The resolution referred to in the foregoing letter is as follows:—

That this Council reports to the General Medical Council the result of their conference with the friendly societies and asks that the General Medical Council receive a deputation.

Dr. MACALISTER next moved—

That the Medical Aid Associations Committee be empowered to receive on behalf of the Council a deputation from the Council of the British Medical Association on the subject referred to in the general secretary's letter of the 20th May, 1901, and that the Committee report, if possible, during the present session the results of its interview with the deputation.

Dr. BRUCE seconded this proposal.

Mr. BROWN thought that a deputation from the British Medical Association should be received by the Council itself rather than by one of its committees.

Dr. MACALISTER explained that the motion made it clear that the deputation would be received on behalf of the Council. On at least two previous occasions a similar course had been adopted.

Mr. BROWN did not think that, as a rule, deputations should be handed over to committees In this case the British Medical Association had asked the General Medical Council to receive them and he thought that as a matter of courtesy they ought to have done so, afterwards referring their memorial to a committee if necessary.

The PRESIDENT: But these gentlemen have not presented any memorial.

Mr. BROWN contended that in cases where his professional brethren were anxious to instruct him as a member of the General Council he did not think it was right that the Council should relegate the hearing of what they had to say to a committee.

Dr GLOVER said that as chairman of the Medical Aid Associations Committee he entirely sympathised with Mr. Brown in the feeling he had given expression to At the same time he saw difficulty in the way of deputations being received by the General Council, especially because of the present state of the Council's finances. If every question of interest to the profession was to be discussed before the Council the expenditure would be very much increased instead of being reduced. He believed that the object which the British Medical Association had in view would be duly secured by the course which it was now proposed to adopt.

Mr. HORSLEY believed that the course suggested would commend itself to the Council of the British Medical Association.

The motion was then agreed to.

Opinions of Counsel.

The Council sat *in camerâ* to receive a report from the President on the subject of the opinions of counsel. On the re-admission of the public no announcement was made as to any decision.

Reciprocity of Practice.

The REGISTRAR read the following report by the Executive Committee in regard to the extension of Part II. of the Medical Act, 1886, to Italy:—

The Committee has to report that at its meeting on June 3rd, 1901, it received from the Privy Council Office the following Order in Council, dated March 9th, 1901:—

[illegible] Part II. of the Medical Act, 1886, to Italy.

I am, Sir, your obedient servant,
The Registrar, General Medical Council. A. W. FITZROY.

AT THE COURT OF ST. JAMES'S,
The 9th day of March, 1901.
Present The King's Most Excellent Majesty.

Lord President, Earl of Derby, Earl of Kintore, Earl of Ducie, Earl Roberts, Viscount Peel, Lord Wenlock, Lord Tweedmouth, Lord James of Hereford, Lord Heneage, Sir James Fergusson, Bart., Sir Francis [illegible] is provided (amongst other [illegible] to time, by Order in Council, [illegible] Act shall be deemed [illegible] after a day to be [illegible] which, in His Ma[illegible] the United King[illegible] country as to His [illegible] named in such [illegible] to be a foreign [illegible] meaning of the [illegible] and that until such Order in Council has been made in respect of any foreign country the said second part of the said Act shall not be deemed to apply to any such country.

And where[illegible] to the regist[illegible] privileges of [illegible]

Now, ther[illegible] of His Privy [illegible] the Medical [illegible] Italy.

A. W. FITZROY.

The committee considered [illegible] Agostin[illegible] registra[illegible] It was [illegible] Italian [illegible] siderati[illegible]

Mr. HORSLEY asked the President whether he had any information in respect to the Bill promoted in the Italian Parliament to exclude practitioners of foreign countries not granting reciprocity from practising in Italy. A year ago the Council had been informed that the English practitioners in Italy were of opinion that the Privy Council should not take action in this matter until the Bill in question had passed into law.

The PRESIDENT said he had no information upon the subject.

Mr. TOMES said his information was that up to last month no measure of the character referred to had been passed by the Italian Parliament, nor did it seem likely that any Act of the kind would be passed. Consequently the action of our Privy Council had been taken under the old Act, which had reference alone to practitioners practising amongst the foreign community in Italy and prohibited from attending Italians

Mr. HORSLEY said that, as usual, the General Medical Council had been entirely given away in this matter by the Privy Council. It had been recently stated in the House of Commons that the Privy Council did not read the minutes of the General Medical Council, and that being so, he could quite understand their action. It was of no use for the General Medical Council to make representations to the Privy Council as to what was the actual state of affairs, because the Privy Council took no interest in the matter. He thought that this should be made known publicly, so that it should be seen how they had been thrust into their present position by the action of the Privy Council.

Further discussion on the subject was adjourned.

Society of Apothecaries of London.

On the motion of Sir HUGH BEEVOR, seconded by Mr. BRYANT, it was agreed that Mr. William Bruce Clarke, F.R.C.S. Eng., M.A., M.B Oxon., assistant surgeon to St. Bartholomew's Hospital, be appointed an assistant examiner in surgery to the Society of Apothecaries of London for a term of four years, in the room of Mr. C. B. Lockwood, F.R.C.S. Eng., who is retiring from office by rotation.

Exemptions from Examinations.

Dr. MACALISTER moved that the following report by the Registrar on the exemptions granted by the licensing authorities during the years 1897, 1898, and 1899 be entered on the minutes:—

I. Report—1. On Dec. 4th, 1900, the General Council passed the following resolution: That the medical authorities who grant exemptions in any part of the examinations which they hold be requested to furnish the Council with a detailed list of the exemptions granted by them in the examinations held during 1897, 1898, and 1899. 2. The medical authorities were made acquainted with this request on Dec. 13th, 1900, and have supplied the desired information. 3 The Registrar, having made a summary of the answers, submitted it on Feb. 25th, 1901, to the Executive Committee when it was directed that the replies by the several authorities should be printed *in extenso* for the information of the General Council.

II. Summary—The English Conjoint Board sends detailed lists showing that, during the three specified years 461 persons were exempted from both the first and second examinations; that the exemptions granted from the entire first examination were 269, and from chemistry alone 46, and biology alone 38. All these exemptions were granted on the ground that the candidates were students from British, Colonial, Indian, or foreign universities.

The Royal College of Physicians of London states that as regards its separate licence one candidate from the University of London was exempted in 1897 from chemistry only, and that in 1898 two students from Dalhousie [College and University], Halifax, and Bombay respectively were exempted from the first and second examinations. In 1899 no exemption was granted.

The Royal College of Surgeons of England states that exemptions from examination under the old regulations have been granted during the three years to eight candidates from various universities.

The Apothecaries' Society of London states that no exemptions whatever are granted from any part of the final examination. During the three years 320 candidates were exempted from one or more of the subjects of the primary examination on the strength of having satisfied the examiners either at British medical corporations or British, Canadian, Indian, or foreign universities; one candidate, however, being exempt on the ground of having passed an examination of the Pharmaceutical Society of Great Britain.

The University of Durham sends a list of 42 exemptions granted during the period from certain subjects on the ground of their having been already passed before other licensing bodies except in one case where the candidate was a B.Sc. of the University. No exemptions will be allowed after September, 1901.

The Victoria University sends details of five persons exempted, one of whom was admitted to the final and four exempted from certain subjects in the first M.B. examination. Four were students of other universities; one did not avail himself of his exemption.

The Scottish Conjoint Board states that during the three years 24 candidates were exempted from portions of the first examination, 60 were exempted from certain subjects in the second examination, 19 from certain subjects in the third examination, and 180 were exempted altogether from the first and second, or first, second, and third examinations, on the ground of having passed examinations embracing such subjects of other British, colonial, or foreign licensing authorities. The Royal College of Physicians of Edinburgh and the Royal College of Surgeons of Edinburgh state that they have nothing to add to the lists supplied by the secretary of the Conjoint Board. The Faculty of Physicians and Surgeons of Glasgow states that the faculty, acting apart from the Conjoint Board, has not granted any exemption from examination.

The University of Edinburgh only grants exemptions in the subjects of the First Professional Examination—viz., botany, chemistry, physics, and zoology, and that only to candidates who (*a*) have completed, in a University of the United Kingdom, a course of study, and have passed an examination in one or more of these subjects, qualifying for a degree in Science or in Arts; or (*b*) have obtained a degree in Science or in Arts in any foreign or colonial university recognised for the purpose by the University Court, granted in either case after having completed a course of study and passed an examination in one or more of these subjects. During the three years specified in the resolution of the General Medical Council—viz, 1897, 1898, and 1899—28 exemptions were allowed to candidates coming from the Universities, in the United Kingdom, of Aberdeen, St. Andrews, Glasgow, Cambridge, Victoria, Royal University, or from the Universities of Madras and New Zealand.

The University of Aberdeen reports one case in 1897, where the candidate was exempted from botany, zoology, and chemistry on the ground of having taken the subjects at Edinburgh University for the Bachelor of Science degree.

The Irish Conjoint Board sends particulars as to eight candidates who were exempted during the three years from certain parts of the professional examination on the ground of having passed similar examinations; in six cases at the old Conjoint Board of the Royal College of Surgeons and the Apothecaries' Hall, Ireland; in one at the Royal College of Surgeons in Ireland under the old scheme; and in one at Bombay University. No exemptions are granted in any part of the final examination. The Royal College of Physicians of Ireland had no exemptions except that registered practitioners of five years' standing were exempted from printed questions when offering themselves for the licence in midwifery. The Royal College of Surgeons in Ireland states that it has nothing to add to the communication sent by the Secretary of the Conjoint Board in Ireland. The University of Dublin states that four candidates were examined, to whom certain exemptions had been granted, and that three passed. The Apothecaries' Hall, Dublin, states that during the three years four candidates, who commenced study before 1892, were exempted from special examination in ophthalmology and biology. Also one graduate of the New York State University, who had also studied in Dublin for two years, was specially exempted, being admitted to examination in Pathology, Hygiene, Forensic Medicine, and all the final subjects.

The following have not granted any exemptions: the University of Oxford, the University of Cambridge, the University of London, the University of Glasgow, the University of St. Andrews, and the Royal University of Ireland.

Mr. HORSLEY, in seconding Dr. MacAlister's motion, said that the foregoing report was a most important one, as it laid before the Council for the first time what were the actual facts. Hitherto, instead of the actual facts the Council had had given to them the misleading "Table E" All that Dr. MacAlister asked for by his motion was that while the false return appeared on the minutes the true return should also appear.

Dr. MACALISTER said that while the return was Mr. Horsley's the interpretation which Mr. Horsley put upon his motion was one which he could not accept. In both cases the tables were true. The information tabulated depended upon the question put.

Mr. HORSLEY wished to know what was the question put to the licensing authorities for the construction of "Table E."

Dr. MACALISTER asked Mr. Horsley if he proposed to put forward any specific motion on the subject.

Mr. HORSLEY: Oh, no; I shall be content to get this report on the minutes to-day, and next session we may get rid of "Table E."

The motion was agreed to.

Praise from the President.

The PRESIDENT congratulated the Council on having got through more business than he had ever previously seen disposed of in so short a time as an hour and three quarters.

The Council adjourned.

WEDNESDAY, JUNE 5TH.

The Council met again to-day when all the members were present, Sir William Turner, the President, being in the chair.

The Case of Dr. Henry Ward Irvine.

The Council proceeded to the consideration of the adjourned case of Dr. Henry Ward Irvine of Cornwall-buildings, Newhall-street, Birmingham, registered as M.B., Bac. Surg., 1895, M.D. 1897, Univ. Dub.

When the case was called it was found that Dr. Irvine was not present. Dr. Bateman attended to watch the case on behalf of the Medical Defence Union.

Mr. WINTERBOTHAM, solicitor to the Council, explained the circumstances of the case. The charge made against Dr. Irvine at the last session was—

That he accepted the office of consulting physician to the Consultative Medical and Surgical Institution, Birmingham, at a salary, and approved or acquiesced in the extensive advertisements issued by that institution by posters exhibited in the various manufactories, trading establishments, and mercantile offices of the city, by advertise- [illegible]

The complainant in the case was Dr. Robert Saundby of Birmingham. On Nov. 29th, 1900, at the conclusion of the deliberation of the Council on the case, the President informed Dr. Irvine that the charge which he had been required to answer had been proved to the satisfaction of the Council; that the further consideration of the charge proved against him had been adjourned until the May session; that the Council regarded the conduct complained of as being of a serious character; and that in adjourning the case it gave him an opportunity to reconsider his position. In accordance with the standing order it became his duty to serve formal notice upon Dr. Irvine that the case would come up to-day. That notice was served on April 30th and a similar notice was sent to the complainant The following letter was received from Dr. Irvine by the Registrar. It was not dated, but he believed it was sent on April 4th; at any rate, it was before the date of the notice to appear at the meeting. The letter was in these terms, viz.:—

The Registrar General, Medical Council.

Birmingham, April, 1901,

DEAR SIR,—I shall be glad if you will inform the General Medical [illegible]

HENRY WARD IRVINE.

Two days ago he (Mr. Winterbotham) received the following letter, viz.:—

47, Upper Belgrave-road, Clifton, June 3rd, 1901

DEAR SIR,—You will recollect the correspondence that has already passed between us with reference to [illegible] the General Medical Council on the 5t[illegible] correspondence between myself and [illegible] also within your knowledge. I have [illegible] possible to attend the meeting and g[illegible] that my connexion with the Instit[illegible] which they expressed disapproval had entirely ceased, but I find that urgent business will now prevent me going to London on that day This I very much regret. I regret also that the person who had undertaken to represent or advise me before the Council has now withdrawn his promise to do so, and I have only to-day received his intimation to that effect. At such short notice you will see that I cannot possibly obtain the services of a competent representative. But since the Council will feel assured from my correspondence with yourself and the Registrar of the Council that the announcements regarded by the Council as advertisements (which evidently were the object of the Council's disapproval) were withdrawn immediately after the C[illegible] had expressed its disapproval [illegible] Birmingham Institution has [illegible] that the Council will accept [illegible] will have noted that I have a[illegible] to the Registrar of the Coun[illegible] received any notice from you [illegible]

I [illegible]

H. W. IRVINE.

P S.—I am informed by Dr. Saundby that he does not propose to offer any additional evidence.

Yesterday he sent a telegram to Dr. Irvine in these terms, viz.:—

To Dr. Irvine, 47, Upper Belgrave-road, Clifton, Bristol.

The Council have no power to compel your attendance, but I strongly urge you to attend personally, and if this is impossible to explain fully the nature of the engagement which prevents you from attending, and if you are not personally present you should instruct a solicitor or counsel to appear for you. In my judgment you will do most unwisely to fail to appear on the summons.

From WINTERBOTHAM.

To this telegram Dr. Irvine had replied in a letter marked "personal and private" in which he said that his engagements in the public service made it impossible for him to come to London.

Dr. BATEMAN intimated on behalf of the complainant that he had no further evidence to offer and that he left the case in the hands of the Council.

The Council then sat in private for about three-quarters of an hour.

The PRESIDENT, when strangers were re-admitted, announced the following resolution:—

That the Council does not think fit to proceed this day with the final stage of this inquiry in the absence of Dr. Irvine; determines to postpone the consideration of the case till Saturday next at 1 P.M.; and instructs the solicitor to require Dr. Irvine to attend here on that occasion when the case will be disposed of.

The Case of Dr. William Allen.

The Council then took the case of Dr. William Allen, of Shotley Bridge, County Durham, registered as M.D., Mast. Surg. 1877, Queen's University, Ireland, which had been adjourned from last session. The charge found proved against Dr. Allen was:—

That, being a registered medical practitioner, he on two occasions gave and signed certificates of deaths of persons on whom he had not [illegible] had been to his knowledge [illegible] ualified person named Burke, [illegible] nd treating patients, and [illegible] a duly qualified medical practitioner.

Dr. Allen attended accompanied by a legal representative. The latter read a number of affidavits with regard to Dr. Allen's methods of conducting the practice since the proceedings in December last, and on behalf of Dr. Allen expressed regret for what had taken place and gave an assurance that in the future he would scrupulously observe all the regulations of the Council.

After a short deliberation in private the PRESIDENT announced to Dr. Allen that the Council, having considered further the charge, did not judge him guilty of "infamous conduct in a professional respect." The case, therefore, was at an end.

The Case of Dr. J. Martin Thomson.

The Council proceeded with the consideration of the case of John Martin Thomson, of Clarkston, Airdrie, Scotland, registered as M B, Mast. Surg. 1891, Univ. Edin.

Mr. WINTERBOTHAM explained that this case was originally considered on Dec 3rd last. The charge made against Dr. Thomson then was—

That he, being a registered medical practitioner, habitually employs as assistants for the sale of drugs and poisons persons who are not qualified to act as chemists or pharmaceutical assistants, and thereby causes such persons to commit breaches of the Pharmacy Acts.

The complainants, the Pharmaceutical Society, were represented, as they now were, by Mr. Peter Morison, jun., S.S.C., Edinburgh, solicitor to the society, and Mr. John Rutherford Hill, Edinburgh, assistant secretary to the society, while Dr. Martin Thomson was represented by his counsel, Mr. T. E. Saunt, instructed by Messrs. Blyth, Dutton, and Co, solicitors, Gresham House, London. Evidence had been given, and the Council came to the following decision:—

(*a*) That the charge made against Mr. John Martin Thomson had been proved to the satisfaction of the Council (*b*) That the further consideration of the charge proved against Mr. John Martin Thomson be adjourned till the next session of the Council.

Due notice of the date of the adjourned consideration of the case had, on April 30th last, been sent to both Dr. Thomson and the complainants, but neither had intimated to him (Mr. Winterbotham) that it was intended to submit fresh facts or new evidence

Mr. SAUNT said that all he had to submit was that previously to being brought before the Council last year Dr. Thomson had not known that he was heinously offending, but so soon as the Council gave decision on the charge made against him he went home and set his house in order. He had at once secured a qualified assistant and he was desirous of submitting himself to the wishes of the Council.

Dr. THOMSON, in examination by Mr. SAUNT, bore out this explanation He had, he said, immediately after the trial of his case last year secured a qualified dispenser who was with him still. He had no connexion whatever with any persons who had approached the General Medical Council on the subject of the attendance of assistants in doctors' shops in the west of Scotland and he had nothing whatever to do with the memorial which had been presented to the Council. He desired to submit himself to the General Medical Council and to be guided by them in every respect.

Mr. MORISON said that he had no questions to ask. The Pharmaceutical Society were now prepared to admit that Dr.

Thomson had employed a qualified assistant in his shop since Dec. 3rd last, and that the society had had *no complaints* since the last meeting of the Council.

As no member put any question, the Council proceeded to consider their decision *in camerâ*. On the re-admission of the public,

The PRESIDENT, addressing Dr. Thomson, said: The Council has come to a resolution which I shall read to you. The Council, having further considered the charge proved against you, does not judge you guilty of "infamous conduct in a professional respect." But in connexion with this decision to which we have come the Council thinks that I ought to say one or two words in addition. It has been proved to the satisfaction of the Council that you, being a registered practitioner, have repeatedly permitted your unqualified assistants, for your profit, illegally to sell scheduled poisons to the public. You have thereby, under cover of your professional qualifications as a registered medical practitioner, enabled such assistants to commit breaches of the law for which they have been punished. Other lamentable consequences have also resulted, to which I need not further refer now. The offence proved against you is grave and fraught with danger to the public, but in view of the fact that your case is the first of the kind which has been brought before the Council, and in view of your assurance that you will in future carefully avoid any similar grounds of complaint, the Council has decided to deal leniently with you and will not proceed further in relation to the charge

Unqualified Pharmaceutical Assistants.

Mr. BROWN thought that seeing that they had now disposed of Dr. Thomson's case they should agree to hear the representatives of the west of Scotland practitioners who had sent to them a memorial on the subject. Certain gentlemen from Glasgow were waiting in London, and although he was quite sure that they would receive the Council's decision in the Thomson case with all respect, yet as representing a large body of practitioners he thought that they ought to be heard.

Dr. BRUCE and Dr. MCVAIL were of the same opinion The former pointed out that if the deputation were received they would not occupy much of the time of the Council, because he was informed that no more than two gentlemen would offer to present the case

The PRESIDENT said that he had hoped that the deliverance in Dr. Thomson's case, which had been drafted with great care, was of such a nature as would do away with the need of having the deputation from Scotland.

Dr. GLOVER thought that if this deputation was to be heard at all they should be received, not by the Council, but by one of its committees These west of Scotland memorialists might be dealt with in the same way as the deputation from the Council of the British Medical Association, who were to be heard through a committee. Any interview that they might have on the subject of their memorial should take place during the hours not occupied by the sitting of the General Medical Council.

The PRESIDENT: What I would suggest is this—that after reading our deliverance these west of Scotland representatives may feel that their doubts and difficulties have been removed, and that therefore there is no need for them to plead any point raised in their memorial.

Mr. BROWN was not satisfied. There was, he asserted, no special committee in existence that could deal with the matter, and there was no committee of Council that could deal with it so well as the Council itself.

The PRESIDENT asked liberty to give what he called a piece of information. The Council, he said, could not consider that in disposing of Dr. Thomson's case they had disposed of the whole question involved, because the Council—perhaps he might say its Executive Committee—knew that there were other cases similar to Dr. Thomson's pending. These cases had not come before the Council yet, and the question therefore arose whether by hearing the west of Scotland memorialists they would not put themselves into a somewhat difficult position as regarded these additional cases that they might have to hear. That was a view which the Council could not lose sight of. He hoped that Mr. Brown thoroughly understood that the Council had no wish to put the memorialists into a wrong position in this case The Council entirely respected their position, but again he must urge that what he had said in the Thomson case should be sufficient to allay their apprehensions.

SIR CHRISTOPHER NIXON was opposed altogether to any hearing being granted to the deputation. These gentlemen had had the opportunity of putting forward their views in their memorial, and if they were to be heard it would simply be a reopening of the Thomson case which the Council had just decided.

Dr. MCVAIL wished to point out to his friend that if the deputation were received and if they harked back on the Thomson case or said anything improper it was in the power of the President to stop them.

Dr. LITTLE did not think that there should be any hesitation in refusing to hear this deputation. They and the subject that they wished to speak upon were of much less importance than the British Medical Association and their subject of a Conciliation Board which had been referred to a committee of the Council.

Dr LOMBE ATTHILL strongly opposed the reception of the deputation at all. If there was anything in their memorial it was a request to the Council to wink at an existing practice which tended to infringement of the law of the land. He was prepared to treat the memorial with every respect, but seeing that there were similar questions pending he did think that the deputation would be a most improper one for them to receive.

After a remark by the PRESIDENT that it would be a serious matter for the General Medical Council if they were to allow themselves to be influenced by outside parties in the conduct of their judicial duties,

Mr. HORSLEY stated that he could not vote for the reception of the deputation by either the Council or one of its committees. His opinion was that, however guarded language they might use, any deputation could not avoid trenching on judicial matters. Under present circumstances he thought that the deputation ought not to be allowed.

The PRESIDENT demanded a formulation of the motion and amendment.

Dr. GLOVER submitted his amendment in the following terms:—

> That the Executive Committee of the General Medical Council be empowered to receive the memorialists from the west of Scotland on the subject of the sale of scheduled poisons by unqualified assistants employed by general practitioners on Friday, at 12 o'clock.

On a vote this proposal was rejected, as only four members of the Council supported it.

Mr. Brown's motion was then put. Its terms were these:—

> That the memorialists in regard to the employment of unqualified dispensers in Scotland be permitted to appear before the General Medical Council by deputation on Friday next.

On a division 20 members voted against this motion, eight voted for it, two did not vote, and one member was declared to be absent.

As both amendment and motion were rejected, nothing more can be heard of the Scotch case during the present session

The Case of Nottingham Dentists.

On the Dental Committee's report on the cases of Messrs. Isaac Jeffries Dadley, Henry Smith Clarke, and Reuben Widdowson being reached,

The PRESIDENT, as chairman of the Dental Committee, stated that all these three gentlemen were in practice in the town of Nottingham, and they were all charged with practically the same offence—namely, advertising in an objectionable way. When the matter came up before the Dental Committee all the accused had consented to their cases being taken together. Perhaps the same course could be followed in the Council. If there was no objection he would call upon the three persons who had been summoned.

The suggestion was agreed to, and there appeared thereupon Dr. Hugh Woods, secretary of the London and Counties Medical Protection Society, Limited, the complainants; Mr. Dadley, accompanied by Mr Ockerby, his solicitor; Mr. Wright-Motson, on behalf of his client, Mr. H. Smith Clarke; and Mr. Widdowson for himself.

The REGISTRAR read the reports of the Dental Committee which were—

> In the case of Mr. Dadley the committee find that the following facts were established by the evidence—(a) That Isaac Jeffries Dadley was registered in the Dentists' Register as in practice before July 22nd, 1878, and his address in the *Dentists' Register* is 19, *Carter-gate, Nottingham* (b) That Isaac Jeffries Dadley has habitually issued and caused to be issued advertisements in various magazines and newspapers and local theatre and music hall programmes and tramway tickets and has exhibited in the Great Northern railway station at Nottingham a show case containing artificial teeth and a photograph of himself with his name, description, and address in large letters. (c) The said I. J. Dadley has withdrawn all the advertisements

complained of and undertakes not to advertise in future anything beyond his name and address, and further to abide by any expression of the views of the Council on the subject of advertising in general The evidence before the Committee consisted of: (a) A statutory declaration of Dr Hugh Woods dated Sept. 23th, 1900, (b) various advertisements [illegible] that declaration (c) a letter [illegible] ing [illegible] ith [illegible] ice [illegible] ter is 1, Clarendon-street, Nottingham (b) That Henry Smith Clarke has habitually issued and caused to be issued advertisements in various parish magazines, on various cards of the Notts County Cricket Club and of the Notts Forest Football League, and in a pamphlet and leaflet issued by him (c) Mr Clarke's solicitor stated on his behalf that Mr Clarke had taken steps to withdraw all the advertisements complained of, and undertook for the future to discontinue the issue of advertisements of any kind The evidence before the committee consisted of: (a) A statutory declaration of Dr Hugh Woods, dated [illegible]

[illegible] Reuben Widdowson was registered in the Dentists Register as in practice before July 22nd 1878, and his address in the Dentists Register is 12, Arkwright-street, Nottingham. (b) That Reuben Widdowson has habitually issued and caused to be issued, advertisements in railway time-tables and in a parish magazine; and he also [illegible] and undertakes not to advertise [illegible] and address and further to abide [illegible] Council on the subject of advertis[illegible] the Committee consisted of: (a) A statutory declaration of Dr Hugh Woods, dated Sept. 23th, 1900, (b) various advertisements and a photograph exhibited to that declaration, (c) a letter from Mr Widdowson to the solicitor to the Council dated Jan 25th, 1901.

Having by standing orders the option to either hear parties or to consider forthwith the Dental Committee's reports, the Council agreed to do the latter, and the room was cleared On the re admission of the public,

The PRESIDENT intimated that the resolution come to as respected each of the three cases was this —

> That the Council, taking note of your withdrawal of the objectionable advertisements complained of and of your assurance that you will abstain from the issue of like advertisements in future has decided to proceed no further in reference to the facts proved against you.

Reciprocity for Malta

Sir JOHN BATTY TUKE, on behalf of the Education Committee, submitted a report on the recognition of the medical degrees of the University of Malta The question, he said, had been raised by the receipt of the following communication from the Privy Council Office —

> [illegible]
>
> It will be observed that the immediate cause of this action of the Maltese authorities was a rumour that it was proposed to extend Part II of the Act to Italy As the Medical Council are doubtless aware, the attitude of the legislature of Italy, as recently reported by THE LANCET, towards the question of the practice of medicine by English practitioners in that country renders doubtful the possibility of the application of Part II to Italy in the near future
>
> The Lords of the Council, however, propose to consider the present application from Malta on its merits, irrespective of any arrangements with Italy
>
> As regards the amendment in the Draft Ordinance proposed by the Crown Advocate in his letter of the 25th of September last I am to state that the Secretary of State is disposed to think that it might be better to omit the whole of the third paragraph of Section 5.
>
> The Lords of the Council would be glad to be furnished with any information at the disposal of the General Medical Council as to the status of the Diplomas of the University of Malta, having regard to Section 13 (1) of the Medical Act, 1886.
>
> I am Sir, your obedient servant,
>
> A. W. FITZ ROY

The Education Committee, Sir John Batty Tuke said, had very carefully considered this letter and all the documents referred to in it and had framed a series of three resolutions on the subject which he now wished the Council to adopt

Dr MCVAIL objected that the matter was too important to be pressed forward so hastily He had not had time to thoroughly examine this report and he wished for adequate time If the Council adopted its recommendations now they would practically be allowing the Education Committee to act for them If the report was gone on with now it would be simply a case of "Shut your eyes and open your mouth and see what you will get"

Mr. HORSLEY said that he had received a copy of the report only that morning He, however, had read the documents it contained during the day, and he should certainly vote for the Education Committee's report

The recommendations, on the motion of Sir JOHN BATTY TUKE, seconded by Dr MACALISTER, were then adopted as follows —

> 1 The regulations abstracted in Section 3 (pp 15-26) indicate that [illegible] Malta are granted after a [illegible] over four years following [illegible] xtending over three years The two courses, in combination appear to the Committee to be not [illegible] takes place the fourth condition contained in Section 5 of the draft ordinance of 1900 should be disallowed by the proper authority

The condition referred to is —

> A licence shall be granted to any candidate producing a certificate from the Medical Board showing that that Board is satisfied that the candidate has attended one or more recognised hospitals in Malta or [illegible]

In seconding the adoption of the second of these recommendations Dr MACALISTER mentioned that in objecting to Section 5 of the draft ordinance the Council would not be going against the views of the Privy Council as the Government had already indicated that they were prepared to delete the words to which exception was taken

On the motion of the PRESIDENT, Dr MacAlister was authorised to inform the Privy Council of the General Medical Council's action in the matter

Registration of Foreign Graduates

On the motion of Sir JOHN BATTY TUKE, seconded by Dr MACALISTER, the Counc[illegible] from the Education Committ[illegible] diplomas granted by Italian [illegible]

> The Executive Committee have remitted to the Education Committee an application from a graduate of the University of Turin that his diploma may be recognised by the Council under Section 13 (1) of the [illegible] remitted to them
>
> Applications of a similar kind from graduates and licentiates of other Italian Faculties are not unlikely to be received by the Council, and the same necessity for further information will arise in regard to these [illegible] uncil [illegible] ncils, [illegible] omas [illegible] I m [illegible] may [illegible] the

The Council adjourned

MR. JOHN SYDNEY HICKS, M.D. Lond., a Cornishman, has been elected without opposition member of the Legislative Assembly, West Australia, for the Roebourne or north west district the expenditure of the society in the years 1895 and 1900, from which it appeared that between those years the number of patients had increased fivefold, while the cost of maintenance per patient had diminished by more than 50 per cent. —a result which was attributed entirely to the economical advantages arising under the colony system from dealing with increased numbers. This fact, the committee urged, might justly commend itself to the consideration of the charitable public as an additional reason for the further extension of the accommodation at the colony.

A CENTENARIAN.—Miss Sarah Dawes of St. Michell's Park, Bristol, died last week, aged 101 years.

A YOUNG Italian lady, Dr. Rina Monti, who has published several scientific papers and who gained a university gold medal, has been accepted by the University of Pavia as a Lecturer in Anatomy.

ATTEMPTED SUICIDE.—On May 29th a sailor, 21 years of age, was charged at Marlborough-street Police-court with attempting to commit suicide at the Middlesex Hospital. One of the nurses of the hospital stated that he was admitted on May 27th suffering from a swelling in his neck, and on the following day at 9 P.M. she saw that the chain which hangs over the bed for patients to raise themselves by was tied tightly round his neck. A police sergeant said that at the police station the accused asserted that he still intended to commit suicide and that his father had hanged himself by the same means in a London hospital 18 months ago. The accused was remanded.

DEATHS FROM LIGHTNING.—On May 29th an excursion party from Coventry (six in number) who were driving in a wagonette to Princethorpe, had reached the neighbourhood of Shelton-on-Dunsmore when a thunderstorm came on and they took shelter beneath a tree on the roadside. They were struck by lightning and all "fell down in a bunch." A man and a horse were killed and three adults and a little boy were severely injured.—On the same evening a Norfolk militiaman, recently invalided home from South Africa, was killed by lightning while sitting at the open window of a public-house at Grimston, near Lynn. Two companions were also struck, but they escaped with slight injuries.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The annual general meeting of this society was held on May 22nd, at 11, Chandos-street, London, W., Mr. Christopher Heath the President, being in the chair. From the report read by the secretary it appeared that during 1900 seven new members had been elected, 13 members had died, and four had resigned; the number of members at the end of the year was 280. Three widows and seven orphans had been elected, four widows had died, and four orphans had become ineligible for further grants; 47 widows and 14 orphans were in receipt of grants on Dec. 31st. The receipts available for grants and expenses were £3388 8*s.* 6*d* and the grants amounted to £3034 10*s.*, including the Christmas present of £531. The expenses were £244 1*s.* 8*d.* No legacy had been received. The following gentlemen were elected to fill the vacancies in the list of officers for 1901–1902: Dr. G. F. Blandford, treasurer; Mr. Sleeman, Mr. Elwin, Sir Hermann Weber, Mr. Stowers, Dr. Nix, and Dr. Palmer, directors. A grant of £26 under by-law 78 was made to a widow. The funded property of the society was reported as £98,350. Since January, 1901, 26 new members had been elected. A vote of thanks to the editors of the medical journals was carried unanimously. The proceedings were closed by a vote of thanks to the chairman.

BOOKS, ETC., RECEIVED.

ARROWSMITH, J. W., Quay-street, Bristol.
- Bath Waters: a Rational Account of their Nature and Use, with Special Reference to Gout, Rheumatism, and Rheumatoid Arthritis. By Preston King, M.D. Price not stated.

BAILLIERE, TINDALL, AND COX, Henrietta-street, Strand, London.
- The Commonwealth of Cells: some Popular Essays on Human Physiology. By H. G. F. Spurrell, B A. Price 2*s* 6*d.*
- Introduction to Medical Jurisprudence. By William McCallin, M.D., B.Ch. Price 4*s.*

BALE, SONS, AND DANIELSSON, Great Titchfield-street, London.
- When to Operate in Inflammation of the Appendix. By C. Mansell Moullin, M.D., F.R.C.S. Second edition. Price 2*s.* 6*d.*

BLACKWOOD AND SONS, London and Edinburgh.
- The Extermination of Love. A Fragmentary Study in Erotics. By E. Gerard (Emily de Laszowska). Price 6*s.*

DAVIS COMPANY, Philadelphia and Chicago.
- Principles of Surgery. By N. Senn, M.D., &c. Third edition. Price 18*s.*

ENGELHARD AND CO., Chicago.
- The Acute Contagious Diseases of Childhood. By Marcus P. Hatfield, A.M., M.D. Price 4*s*
- A Syllabus of New Remedies and Therapeutic Measures. By J. W. Wainwright, M.D. Price 4*s.*

FISCHER, GUSTAV, Jena.
- Handbuch der Toxikologie. By Professor A. J. Kunkel. Price 12 marks.
- Geburtshilfliche Operationslehre. By Dr. Felix Skutsche. Price 8 marks.

46 RUE DE LA MADELEINE, Bruxelles.
- Spa; Passé, Présent, Avenir. By Dr. V. Scheuer and Dr. R. Wybauw. Price not stated.

FRATELLI BOCCA, Torino.
- Magistri Salernitani Nondum Editi. By Piero Giacosa. Price not stated.

"HERALD" OFFICE, Carshalton.
- Scientific Papers and Letters. By A. H. Smee, M.R.C.S., &c. Price not stated.

HOEPLI, Ulrico, Milano.
- Soccorsi d'Urgenza. By Dr. Carlo Calliano. Price 3 lire.
- Manuale del Massaggio. By Dr. Romolo Mainoni. Price 2 lire.
- Manuale di Chirurgia Operatoria. By Drs. R. Stecchi and A. Gardini. Price 3 lire.

KEGAN PAUL AND CO., Charing-cross-road, London.
- B. Bradshaw's Dictionary of Mineral Waters, Climatic Health Resorts, Sea-baths, and Hydropathic Establishments. 1901. Price 2*s.* 6*d*

KIMPTON, HENRY, Furnival-street, London.
- A Manual of Hygiene and Sanitation. By Seneca Egbert, A.M., M.D. Second edition. Price 10*s* 6*d*
- Gynecology. By M. A. Crockett, M.D. Price 7*s* 6*d.*
- Chemistry and Physics. By W. Martin, Ph.D., M.D., and W. H. Rockwell, Jr., M.D. Price 7*s* 6*d.*
- Materia Medica, Therapeutics, Medical Pharmacy, Prescription-writing, and Medical Latin. By W. Schleif, Ph.G., M.D. Price 7*s* 6*d.*

MARLBOROUGH AND CO., Old Bailey.
- Swedish Self-Taught. By C. A. Thimm, F.R.G.S. Price 2*s*

MELROSE, ANDREW, Pilgrim-street, London.
- Henry Drummond. A Biographical Sketch. By Cuthbert Lennox. Price 2*s.* 6*d.*
- American Pediatric Society, Transactions of the Twelfth Session held at Washington, U.S.A., May, 1900. Vol. xii. Price not stated.

REBMAN, Limited, Shaftesbury-avenue, London.
- The Students' Manual of Venereal Diseases. By F. R. Sturgis, M.D. Seventh edition, revised and in part re-written by F. R. Sturgis, M.D., and Follen Cabot, M.D. Price 6*s.*
- A System of Physiologic Therapeutics. Edited by S. S. Cohen, A.M., M.D. Vol. i. Electrotherapy. By G. W. Jacoby, M.D. Price 10*s* 6*d.*
- Uterine Fibromyomata. By E. Stanmore Bishop, F.R.C.S. Price 15*s.*

SAVAGE, J. B., Wood-street, Cleveland, Ohio.
- Nursing Ethics, for Hospital and Private Use. By Isabel Hampton Robb. Price 8*s*

UNIVERSITY PRESS, Cambridge.
- Lectures on the History of Physiology during the Sixteenth, Seventeenth, and Eighteenth Centuries. By Sir M. Foster, K.C.B., M.P., M.D., &c. Price 9*s.*

WATTS AND CO., Johnson's-court, Fleet-street, London.
- Homoculture; or the Improvement of Man, Physically and Mentally, by Means of Selection. By Henry Smith, M.D. Jena. Price 6*d.*

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

BARKER, H. M., M.D. Aberd., L.R.C.P. Edin., M.R.C.S. Eng., has been appointed Deputy Medical Officer of Health of the Sandown Urban District, Isle of Wight.

BLACKBURN, VERNON K., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Assistant Resident Medical Officer to the Sheffield City Hospitals for the treatment of cases of infectious disease.

CLOWES, E. F., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Certifying Surgeon under the Factory Acts for the Wootton-under-Edge District of Gloucestershire.

DAY, G., L.R.C.P. & S. Edin., has been appointed Senior Resident to the Bootle Borough Hospital.

Jacob, F. H., M.B. Lond., has been appointed Honorary Assistant Physician to the Nottingham General Hospital.

Macdonald, G. H. D., M.B. Aberd., has been appointed Officer of Health for Portlandshire, Victoria.

[illegible] promoted to Honorary Surgeon.

[illegible] Medical Officer of [illegible] rgeon to the [illegible] R.C.S.I., has [illegible] Certifying District of [illegible] outh Wales.

oung, R. W., M.R.C.S. Eng., L.S.A., has been appointed Medical Attendant on Aborigines at Ulladulla, New South Wales.

Vacancies.

r further information regarding each vacancy reference should be made to the advertisement (see Index).

rnwood House Hospital for the Insane, Gloucester.—Junior Assistant Medical Officer. Salary £150 (arising to £170), with board, &c.

thnal Green Infirmary.—Resident Locum Tenens for two months. Four guineas a week and allowances.

[illegible]—Junior House Surgeon [illegible] dging [illegible] Surgeon, single. Salary [illegible] Salary £80 per annum [illegible] sary.—House Surgeon [illegible] apartments, coals, gas, and [illegible]

lsea Hospital for Women, Fulham road, S.W.—Registrar [illegible] Surgeon, un[illegible] g, and washing [illegible] Salary £80, [illegible] geon. Salary to [illegible]—Lady House [illegible] coals, lodging, and wash[illegible]

ford Union, Suffolk (Lavenham District).—Medical Officer and Public Vaccinator. Salary £52 2s. and fees amounting approximately to £45.

unty Asylum, Carmarthen.—Junior Assistant Medical Officer, unmarried. Salary £130, advancing £10 yearly to £150, with furnished apartments board, washing and attendance, without stimulants.

unty Asylum, Prestwich, Manchester.—Assistant Medical Officer, unmarried. Salary £150 increasing to £250, with board, apartments, and washing.

unty Asylum Whittingham, Lancashire.—Junior Assistant Medical Officer, unmarried. Salary £150, increasing to £250, and on promotion to £300. Furnished apartments, board, washing, and attendance provided.

vonshire Hospital, Buxton Derbyshire.—Assistant House-Surgeon. Salary £80 per annum, with furnished apartments, board, and washing.

neral Infirmary Leeds.—Resident Obstetric Officer. Salary £50 a year, with board, lodging, and washing.

ahamstown Asylum and Chronic Sick Hospital, South Africa.—Assistant Medical Officer. Salary £250 per annum, with board and quarters. Free passage.

eat Northern Central Hospital.—Non resident Assistant House Surgeon for six months. Salary at the rate of £30 per annum, with luncheon and dinner.

y's Hospital.—Lecturer on Biology; also Demonstrator of Chemistry and Physics and of Chemistry and Toxicology.

mpstead Hospital.—Resident Medical Officer, for six months, renewable. Salary at rate of £120 with rooms, coals, and gas.

ston and Isleworth Urban District Council.—Medical Officer of Health. Salary £250.

ll Royal Infirmary.—Junior Assistant [illegible] £60, with [illegible]

man [illegible] mar [illegible] trar [illegible] fern [illegible]

[illegible] of Clyde.—Resident Medical Man. £40 per annum in addition to guaranteed Practice, and other emoluments.

ew Memorial Hospital.—House Surgeon (unmarried). Salary £100 per annum, with board and residence.

Kent and Canterbury Hospital.—Assistant House Surgeon, unmarried. Salary £60 a year, with board and lodging.

Leicester Infirmary.—Second Assistant House Surgeon. Salary £80 per annum, with board, apartments, and washing.

London Hospital Medical College.—Instructor of Anæsthetics and two Assistants.

Manchester Children's Hospital.—Assistant Surgeon. Honorarium of £50 per annum.

Norfolk and Norwich Hospital.—Assistant House Surgeon for six months. Honorarium £20, with board, lodging, and washing.

North Eastern Hospital for Children, Hackney-road, N.E.—House Surgeon for six months. Salary at rate of £80 per annum, with board, residence, and laundry.

Nottingham General Dispensary.—[illegible] £200 per annum, increasing by £15 [illegible] Resident Surgeons. Salaries £160 [illegible] £10 every year, furnished apart[illegible] fuel. Unmarried.

Paddington Infirmary.—Clinical Assistant and Second Assistant, unmarried, for six months. Honorarium of £36, with board, lodging, and washing.

Queen's Hospital, Birmingham.—House Surgeon for 14 months. Salary at the rate of £50 per annum, with board, lodging and washing.

Royal Alexandra Infirmary, Barbour Park, Paisley.—House Surgeon. Salary £60. Assistant House Surgeon. Salary £30; both with bed and board.

Royal Cornwall Infirmary.—House Surgeon, unmarried. Salary £100, increasing by £10 a year, with board (excluding stimulants) and apartments.

Royal Sea Bathing Hospital, Margate.—Assistant Resident Surgeon. Salary £60, with board and residence.

Royal Westminster Ophthalmic H[illegible] Strand, W.C.—H[illegible] [illegible] Demonstrator of [illegible]

Uni[illegible]

We[illegible]

Worksop Dispensary and Victoria Hospital.—House Surgeon and Dispenser. Salary £150 per annum, rooms, and attendance.

Births, Marriages, and Deaths.

BIRTHS.

Eustace.—On May 27th, at [illegible] Surgeon Lieute[illegible] the wife of [illegible]

Petter.—On June [illegible] Walter Petter, [illegible] the wife of [illegible]

Sadler.—On June [illegible] F. J. Sadler, M.B., of a daughter.

Sutcliff.—On May 31st, at Park Villa, Torrington, Devon, the wife of E. Harvey Sutcliff, M.B., of a son.

MARRIAGES.

Burnet—Penman.—At St. Thomas's English Episcopal Church, Edinburgh, on June 1st, by the Rev. H. J. Colclough, M.A., James Burnet, M.A., M.B., Ch.B., M.R.C.P.E., to Agnes, daughter of John Penman, Edinburgh.

Collinson—Gummer.—June 5th, at the Rotherham parish church, by the Rev. J. W. Goodall, M.A., vicar, Francis Charles Collinson, M.R.C.S., L.R.C.P., second son of Mr. Wm. Collinson, Rotherham, to Lilian Guest Gummer, eldest daughter of Mr. George G[illegible] J.P., [illegible]

Lister—[illegible] by t[illegible] M.R[illegible] Berth[illegible] Oak [illegible]

Naesmyth—Burrage.—On the 1st inst., at St. Paul's, Beckenham, [illegible] assisted by the Rev. Hubert Green, [illegible] R.C.S., L.R.C.P., younger son of [illegible], Bart., to Flora, younger daughter [illegible]

[illegible] thbert's Church, Allendale, on the [illegible] by the Rev. H. S. Stephenson, M.A., rector, William George Richardson, M.B., F.R.C.S., son of the late Edward Richardson, Cotfield House, Gateshead, to Sarah, daughter of George Arnison, Surgeon, Allandale.

Shaw—Braithwaite.—On June 4th, at the parish church Leeds, by the Rev. R. S. Medlicott, assisted by the Rev. H. T. S. Gedge, Kenneth Rodas Devaynes Shaw, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., Calverley, Leeds, to Margaret Eudora, elder daughter of James Braithwaite, M.D., of Leeds.

DEATHS.

Cayzer.—On May 29th, at his residence, Mayfield, Grassendale, Liverpool, Thomas Cayzer, M.R.C.S. Eng., in his 67th year.

Myrtle.—On the 2nd of June, at Harrogate, suddenly, of acute laryngitis, James Aitken Myrtle, M.D., in his 41st year.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

A QUESTION IN HOSPITAL ADMINISTRATION.

To the Editors of THE LANCET.

SIRS,—I should like to know if I was justified in the following. A patient in the hospital of which I am house surgeon developed erysipelas. I communicated with the relieving officer (as the man was a pauper), with the medical officer of health, the sanitary inspector, and the master of the workhouse. All my communications were delivered before 10 in the morning. The medical officer of health said that the borough sanitary authority were not liable for his removal, as the patient was a pauper and must be isolated by the Poor-law authorities under his (the medical officer of health's) supervision. The Poor-law authorities took no notice whatever and after waiting until five o'clock in the afternoon I sent the patient walking up to the workhouse (a short half-mile). The patient's temperature was normal and he felt strong, almost as usual, as it was only a very slight attack. We were having an operation for intestinal anastomosis shortly, so I deemed it urgent that the man should go, and as he could do so without risk to himself and no authority would (or did) remove him in a reasonable time I thought I must take the matter in my own hands. We have a large casualty department as well, thereby rendering his retention still more dangerous. Who is the proper authority to deal with infected paupers? The man suffered nothing by walking and was well in a week.

I am, Sirs, yours faithfully,

June 3rd, 1901. J. W. R.

*** The house surgeon incurred penalties for causing a person suffering from an infectious disease to be exposed in the public highway. But, under the circumstances, common-sense and equity, if not law, might sanction this act. Presuming erysipelas to be a notifiable and removeable disease in that district, the medical officer of health is the person to act in such cases, and he would incur the consequences of its non-removal. The patient being a pauper or not is no concern of his, even if it be competent for him to judge whether the person is or is not in point of law a pauper. It is very usual for infectious cases to be removed direct from the workhouse to the infectious diseases hospital, the authorities of the latter recovering the cost of maintenance from the Poor-law authorities afterwards. It is, for instance, the invariable custom at all the metropolitan workhouses and infirmaries. In view of such precedents, and the practice is a common one, it cannot for one moment be held to be an excuse for the non-removal of the case by the medical officer of health that the patient was a pauper, unless, of course, the medical officer of health has received specific and unmistakeable instructions from his board in writing. Then the latter assumes the whole responsibility. Such line of argument would be wholly foreign to the intention and meaning of the Infectious Diseases Acts which instituted infectious diseases hospitals to prevent the spread of infectious diseases among the poor and destitute. The history of all great epidemics shows that it is the pauper and the tramp who have initiated them.—ED. L

"MEMORIAL TO THE LATE DR. ARCHIBALD HAMILTON JACOB."

THE subscription list will close on Thursday, June 20th. Amount already acknowledged, £372 10*s.*

	£	*s.*	*d.*		£	*s.*	*d.*
W. R. Hamilton	0	10	0	Professor R. Anderson...	0	10	6
J. S. Jefferson	0	10	6	G. Orr	0	10	6
J. B. Mackay	1	1	0	G. H. Russell	1	1	0
J. O. Martin	1	1	0	Colonel W. V. Jacob ...	1	1	0

Honorary treasurers: Sir Charles Cameron, C.B., 51, Pembroke-road, Dublin, and Mr. L. H Ormsby, Vice-President of the Royal College of Surgeons in Ireland, 92, Merrion-square West, Dublin.

MUSCULAR STIFFNESS.

To the Editors of THE LANCET.

SIRS,—I shall be much obliged if you or any of your readers could tell me the address or addresses of places where treatment is given to those suffering from muscular stiffness—rheumatism. Is there now any such place in London where treatment similar to that of the Zander method, with the dry heat method in addition, is carried on? I am very anxious to know quickly if there is such a place, and any information you can give me will be much appreciated.

I am, Sirs, yours faithfully,

June 4th, 1901. SENEX.

*** Cases of rheumatism are treated by the dry heat method at the Tallerman Free Institute, 50, Welbeck-street, London, W. Possibly some of our readers can tell our correspondent of other places.—ED. L.

A WARNING.

To the Editors of THE LANCET.

SIRS,—On Tuesday last I was consulted by a man who was fairly well dressed though of dissipated appearacce, about 24 years of age, and who gave the name of White. He said he had just returned from Australia and had been sent to me by the proprietor of his hotel. After the examination, &c., the "patient" tendered a cheque for £5, from which I was to deduct the amount of my fee and hand him the balance in cash. This I declined to do in spite of the man's offer to be content with 10*s.* in the meantime. I subsequently learnt that, on leaving me, the man went to a neighbouring chemist, made purchases to the value of £1 8*s.*, tendered the same cheque, saying it was at my request that he asked him to cash it. I am glad to say he was again unsuccessful.

I am, Sirs, yours faithfully,

Weymouth-street, W., June 5th, 1901. CHAS. W. CHAPMAN.

"THE TREATMENT OF THREAD-WORMS."

To the Editors of THE LANCET.

SIRS,—In your annotation on the above topic in THE LANCET of May 11th, p. 1354, you mention personal cleanliness as the proper remedy for the disorder. This will, I fear, prove for the ordinary mother of out-patients a counsel of perfection and of small practical value. May I venture to supplement your advice by adding that free inunction of the anus with nitrate of mercury ointment every night for six weeks will usually eradicate the disease by destroying the oxyuris as it emerges from the bowel for the purpose of laying its eggs. Your readers are aware that only one generation of worms need be dealt with.

I am, Sirs, yours faithfully,

June 2nd, 1901. MEDICUS.

"SUGGESTIONS WANTED."

To the Editors of THE LANCET.

SIRS,—In reply to "Veldt's" query in THE LANCET of June 1st, 1901, p. 1582, *re* hyperidrosis, I beg to state that I have been a victim to sweating and I attribute my cure to taking one-grain doses of calomel three times a day, followed by a saline aperient.

I am, Sirs, yours faithfully,

June 1st, 1901. LATE OF THE VELDT.

WANTED—LANTERN SLIDES OF BACTERIA MOULDS.

To the Editors of THE LANCET.

SIRS,—Will any of your readers kindly inform me where I can procure lantern slides of bacteria, moulds, &c.?

I am, Sirs, yours faithfully,

Calcutta, May 15th, 1901. T. FREDERICK PEARSE, F.R.C.S. Eng.

CLINICAL MEDICINE IN GERMANY.

To the Editors of THE LANCET.

SIRS,—I would deem it a favour if any of your readers could inform me where in Germany one could obtain the best instruction in clinical medicine and especially in diseases of the chest under a well known specialist in that subject.

I am, Sirs, yours faithfully,

May 31st, 1901. OMACT.

"BETA-EUCAINE."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of May 25th, p. 1510, Dr. L. F. Leslie asked if anyone could throw light on an unsatisfactory after effect following the otherwise satisfactory anæsthetic action of beta-eucaine in a case of extraction of finger-nail. Dr. Leslie says: "The preparation of eucaine was freshly prepared by a chemist, and all instruments were sterilised immediately before use." I promptly wrote to Dr. Leslie and threw out two possible eventualities. 1. That perhaps the chemist had used the alpha instead of the beta-eucaine. The former being the more soluble and is therefore preferred from a dispensing point of view, but has, as it was shown in dentistry, the peculiarity of causing swellings in some cases which, although painless, will last for three or four days, and the alpha had for this reason to be substituted by the beta description which does not cause these swellings but is less soluble. 2. That in all probability the eucaine solution had not been sterilised by boiling, which may be done and is one of its' advantages over cocaine. In answer to this letter Dr. Leslie caused the chemist to send me a sample of the eucaine he had used and on examination at the research laboratory of Messrs. Schering at Berlin it was found that this specimen was indeed beta-eucaine, and, following my request, Dr. Leslie's case was further investigated by scientists on the subject with this very interesting result, which may be of general interest to your readers who may at any time meet with similar difficulties, as I do not believe that the facts are generally appreciated. This report reads as follows: "Considering that Dr. Leslie declares 'that the eucaine solution was freshly prepared by a chemist' it is no doubt the case that this solution was not previously sterilised by boiling, which should be done before injection and the liquid should be injected at body temperature. This is one of the precautions which should not be neglected; another is that Dr. Braun, one of the prominent authors on beta-eucaine as an anæsthetic, has recently pointed out to us that the least admixture of morphine which may result from the use of a syringe which would previously have been used for a morphine injection would be sufficient to cause swellings, so it also occurs when after careful washing morphine traces are still present in the syringe and the cannula. No doubt also other not easily controllable causes may play a part." Eucaine may be boiled without decomposition, which is not the case with cocaine solutions, but if the use of a morphine syringe has to be avoided it is a matter which should be carefully noted by the practitioner.

I am, Sirs, yours faithfully,

June 3rd, 1901. AUG. ZIMMERMANN.

◆

A. B.—Our correspondent is not sufficiently explicit with regard to hi first question to enable us to give him an answer. If he will send us a more detailed account of the circumstances we shall be better able to help him. The literature of deaf-mutism is extensive. Numerous references to papers will be found in Neale's "Digest," and the titles of books upon the subject will be found in catalogues of medical libraries

W H does not state the age of the girl, but he might apply to the Meath Home of Comfort, Westbrook, Godalming Surrey There is also an epileptic colony at Chalfont St Peter, the London office of which is at 12, Buckingham-street, Strand, W C

Hispid —Martindale's "Extra Pharmacopœia" gives some useful hints as to dispensing, but the most complete treatise upon the subject is "The Art of Dispensing," published at the offices of the *Chemist and Druggist* 42, Cannon-street, London, E C.

Luminiferous Ether would be glad if any reader could refer him to literature bearing on the subject of "colour-music." Reports to scientific societies &c. are chiefly wanted, but any literature bearing on the subject will be welcomed

J E. (Kingstown) —As the communication in question has not appeared in type the writer will understand that we do not consider it of sufficient interest.

P A —Our correspondent is advised to consult her usual medical attendant who will give her every information upon the subject.

E. B G —We should say that 5s would be a reasonable sum to charge

METEOROLOGICAL READINGS

(Taken daily at 8.30 a.m. by Steward's Instruments)

THE LANCET Office, June 6th 1901

Date	Barometer reduced to Sea Level and 32° F	Direction of Wind.	Rainfall	Solar Radia in Vacuo	Maximum Temp Shade.	Min. Temp	Wet Bulb	Dry Bulb	Remarks at 8.30 A M
May 31	29·70	S W	0·03	115	68	59	58	61	Cloudy
June 1	29·68	S W		117	71	54	57	62	Cloudy
" 2	29·81	S.W	0·02	117	70	58	58	64	Cloudy
" 3	30·08	S W	.	117	68	55	55	59	Overcast
" 4	30·10	S		116	71	52	53	54	Overcast
" 5	30 12	S.W		121	74	53	55	62	Cloudy
" 6	30·16	N		116	70	60	59	64	Overcast

Medical Diary for the ensuing Week.

OPERATIONS

[illegible] METROPOLITAN HOSPITALS

MONDAY (10th).—London (2 P M.) St Bartholomew's (1.30 P M), St. Thomas's (3.30 P M) St. George's (2 P M) St Mary's (2 30 P.M), Middlesex (1 30 P M), Westminster (2 P.M) Chelsea (2 P M), Samaritan (Gynæcological, by Physicians, 2 P M) Soho square (2 P M) Royal Orthopædic (2 P M), City Orthopædic (4 P M) [illegible] London Throat (4 P M and 6 P M), Royal Ear (3 P M), Samaritan (9 30 A M and 2.30 P M)

WEDNESDAY (12th) —St Bartholomew's [illegible] (2 P.M) Royal Free (2 P.M. [illegible] (3 P M.) St Thomas's (2 P [illegible] (2 P M), St. George's (Opt[illegible] National Orthopædic (10 A [illegible] (9.30 A M and 2.30 P M) Gt. Central [illegible] 2.30 P.M)

[illegible] (14th) —London (2 P M), St Bartholomew's (1.30 P M) St Thomas's (3.30 P M), Guy's (1.30 P.M) Middlesex (1.30 P M), Charing cross (3 P M) St George's (1 P M), King's College (2 P.M), St Mary's (2 P M.) Ophthalmic (10 A.M) Cancer (2 P M), Chelsea (2 P M) Gt Northern Central (2.30 P M) West London (2 30 [illegible] Throat [illegible]

[illegible] Eye Hospital (2 P M) the Royal London Ophthalmic (10 A.M), the Royal Westminster Ophthalmic (1.30 P.M), and the Central London Ophthalmic Hospitals operations are performed daily

SOCIETIES

TUESDAY (11th).—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20 Hanover-square, W).—8.30 P M Papers:—Dr H. Campbell Thomson: The Prognosis and Treatment of Cases of Ascites occurring in the Course of Alcoholic Cirrhosis of the Liver with Special Reference to the Treatment by Laparotomy —Dr F W Goodbody Dr N. D Bardswell and Mr J [illegible] Chapman: Metabolism in Phthisis

WEDNESDAY (12th).—DERMATOLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square W) —5.15 P M Consultation on Cases of Interest

THURSDAY (13th) —OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM —8 P M Cases. 8.30 P M Papers:—Mr P H. Moles: (1) Dot[illegible] Symmetrical Opacities of the Cornea (rare form) removed by [illegible] Unusual Complica[illegible] of Inflammatory [illegible] I R Rivers: On Two Cases of Eye Injury due to Lightning [illegible] Myomata.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (10th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22 Chenies-street, W C).—4 P M Dr A. Whitfield: Consultation. (Skin)

WEST LONDON POST GRADUATE COURSE (West London Hospital, W).—5 P M Mr McAdam Eccles: The Treatment of Aneurysm and [illegible] [Gradua]tes' College and Polyclinic [illegible] Dr J Taylor: Consultation (Medical)

WEDNESDAY (12th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street W C).—4 P.M Mr J Berry: Consultation (Surgical)

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P M Dr Wethered Difficulties in the Diagnosis of Pulmonary Tuberculosis

THURSDAY (13th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies street, W C).—4 P M Mr Hutchinson: Consultation (Surgical)

CHARING-CROSS HOSPITAL.—4 P.M Mr Wallis: Surgical Cases (Post-Graduate Course)

THE HOSPITAL FOR SICK CHILDREN (Gt Ormond-street, W C).—4 P M Mr Pitts: Demonstration of Selected Cases

WEST LONDON POST GRADUATE COURSE (West London Hospital, W).—5 P M Mr McAdam Eccles: The Treatment of Aneurysm and the Control of Arterial Hæmorrhage

FRIDAY (14th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street W C).—4 P M Mr R. Lake: Consultation (Ear)

EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS" and not in any case to any gentleman who may be supposed to be connected with the Editorial staff It is urgently necessary that attention be given to this notice

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication

We cannot prescribe or recommend practitioners

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub Editor"

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager"*

We cannot undertake to return MSS not used

MANAGER'S NOTICES.

TO SUBSCRIBERS

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423 Strand, W C, are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c, should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect

During the week marked copies of the following newspapers have been received —*Liverpool Daily Post, Yorkshire Post, Leeds Mercury Bristol Mercury Sanitary Record, Christian World, Shanklin Gazette, Reading Mercury, Hertfordshire Mercury City Press Mining Journal South African News, Birmingham Daily Post, Local Government Journal, Surrey Advertiser, Worksop Guardian, Weekly Free Press (Aberdeen), &c., &c.*

Communications, Letters, &c., have been received from—

A.—Mr. A. Percy Allan, Lond.; Mr. B. G. Advani, Hyderabad; Messrs. Arthur and Co., Lond.; Dr. J. F. Armstrong, South Shields; A B

B.—Mr. W. H Browne, Leeds; Mr. C. J. Burgess, Sheffield; Mr. C. Birchall, Liverpool; Messrs J. Bale, Sons, and Danielsson, Lond: B B. G.; Bridgwater Infirmary, Hon. Secretary of; Dr. A. A Breuer, Lond.; Dr. E. F. Buzzard, Lond. Barnwood House Hospital, Gloucester, Medical Superintendent of Dr. E. M. Brockbank, Manchester. Messrs Boulton and Paul, Norwich; Bolingbroke Hospital, Governors of; Messrs. Bates, Hendy, and Co., Reading, Messrs Baird Bros. Glasgow; Dr. D. M. Browne, Abersychan; Messrs. Burroughs, Wellcome, and Co., Lond; Mr. Clark Bell, New York.

C.—Mr. W. Clemmey, Bootle; Cortland Wagon Co., Lond., Messrs. Cassell and Co., Lond.; Messrs. Crossley and Co., Lond; Cheltenham General Hospital. Hon. Secretary of; Cookery and Food Exhibition, Director of, Dr. D. L. Cairn, Glasgow, Chester General Infirmary, Secretary of Mr. J. Campbell, Inverkip; Mr. H. Collier, Birmingham; Cadbury Bros, Ltd., Bournville, Dr. J. Gray Clegg, Manchester; County Asylum, Whittingham, Superintendent of, C. W.

D.—Dr S. Davenport, Ashford; Mr. H. G. Dixon, Lond.; Messrs. J. Defries and Sons. Lond.; Mr. H J Dunn, South Croydon, Mr. F. Dixon, Lond.; Mr. L Durlacher; Mr. T. Dixon, Lond.; Dr. S. Dick, Manchester.

E.—E. H. B.

F.—Messrs. J. Feeney and Co., Birmingham; F. C., Forsaith's Advertising Agency, Lond.

G.—Mr. T. H. Gillam, Bromyard; Mr. J. Gibson, Boston; Mr. W. H. Clayton Greene, Lond., Sir W. T. Gairdner, Edinburgh; Dr. G. Gresswell, Grimsby.

H.—Dr. J. W. Holan, Manchester; Dr. Max Heim, Bad Tonnins stein; Mr. G. Hermanni, Lond.; Dr. W. Hunter, Lond.; Hunter, Caergwrle.

I.—Italian Hospital, Lond., Secretary of.

J.—Mr. R. D Johnson, Edmonton; J K. F.; J. W. R.; Dr. J. Jones, Pen-y bank.

K.—Mr. J. Kelsall, Lond.; Mr. Mr Kellett, Wigan.

L.—Dr. E. Graham Little, Lond.; Leicester Infirmary, Secretary of; Lee's Advertising Agency, Lond.; Dr. T Laffan, Cashel Dr. J. Love, Glasgow; Lightburn Hospital, Shettleston, Manager of; Mr W. S. Lyon, New York: London Press Exchange Leeds General Infirmary, Manager of; Mr T Laird, Heywood L D.; Lebanon Hospital, Syria, Secretary of.

M.—Dr. James More, R thwell; Medical Society of Victoria, Melbourne, Hon. Treasurer of; Messrs. Masson and Co., Paris; Maltine Manufacturing Co, Lond.; Mr. E Merck, Lond; J. M. Munro Ltd Edinburgh, Messrs. C. Mitchell and Co., Lond.; Mr. W. R Marshall, West Hampstead; Manchester Literary Society, Assistant Secretary of: Messrs. Mayer and Meltzer, Lond.

N.—Messrs F Newbery and Sons, Lond; Norfolk and Norwich Hospital, Secretary of; National Association for Prevention of Consumption, Leicestershire Branch, Secretary of, Nemo; Mr. J. C Needes, Lond.; Mr. H. Needes, Lond.

P.—Mr. F. E. Potter, Lond.; Paddington Infirmary, Clerk of; Prideaux's Pure Casein Co, Motcombe, Dr. R. Park, Glasgow. Mr J. B Pike, Loughborough. Mr. A. Paul, Lond.; Messrs. Parkins and Gotto, Messrs. Peacock and Hadley, Lond.; P. A.

R. Dr. J. Roche, Kingstown; Royal Medical Benevolent College Epsom, Secretary of; Dr. W. C. Roby, Guerrero, Mexico; Messrs. Reynolds and Branson, Leeds, Mr. A. C. Roper, Exeter; Messrs. H. J. Reading, Lond.; Royal College of Surgeons in Ireland, Registrar of, *Rotherham Advertiser*, Manager of.

S.—Messrs. Street and Co., Lond.; Messrs Smith and Gill, Sheffield; Mr. W. Smartt, Dublin. Dr. G. E. Shuttleworth, Richmond, Mr. C. H. Smith, Nottingham; Mr. C. G. Stuart-Menteath, Lond.; Sanitary Institute, Secretary of; Société des Eaux Minerales de Contrexéville, Paris; Sheffield Corporation, Accountant of; Mr. Prideaux Selby, Teynham; Scholastic, Clerical, &c., Association, Lond.

T.—Mr. T. Thatcher, Bristol; Dr. S J. Taylor, Norwich; Dr. C. Bell Taylor, Nottingham; Tottenham Hospital, Clerk of; T. F

W.—Mr. W. H. Wykes, Northampton. Worksop Dispensary, Secretary of Dr. V. Wanostrocht, Fenny Compton; Western General Dispensary, Lond., Hon Secretary of; W. R; Messrs W. Wood and Co., New York Dr. G W. Warren, Philadelphia, U.S A.: West Ham Hospital, Stratford, Secretary of.

Letters, each with enclosure, are also acknowledged from—

A.—Dr. C. M. Allan, Longton; Amalgamated Medical Institute, Bath Secretary of; Messrs. Allen and Hanburys Lond; A. D. L. T.; A. C., Mr. Armstrong, Lond.

B.—Mr. T H. Brocklehurst, Steeple Claydon; Birmingham City Asylum, Clerk of; Messrs. J. Beal and Son, Brighton; C. Birchall, Ltd., Liverpool; Mr. H. Butterfield, Northampton; Dr. F. E. Bissell, Irchester Dr D. F. Brown, Northwich; Birkenhead Union, Clerk of; Dr. J. Burnet, Edinburgh; Borough Asylum, Ipswich, Medical Superintendent of, Mr. C. J. Bond, Leicester Messrs. Buchner, Schacht, and Co., Lond.; Mr. B. Brown, Huddersfield; Mrs. B., Lond.

C.—County Asylum, Prestwich, Treasurer of; C S. W., C. F. G.; Messrs. J. and A. Carter, Lond.; Mr. A. Craig, Glasgow.

D.—Mr. W. Doughty, Chillington; Mr. W. W. Davies, Bristol, Doctor, Lond.; D. J.; D. M.; Dr. J. H. Dauber, Lond.; Mr. H. W. Dodd, Lond.; D. D. S

E.—Dr. G. L Eastes, Lond.; Mr. T. F. Elmes, Sunday's Well, Mr. A. D. Evans Lond., E. H., Dr. W. B Edwards, Seven Sisters.

F.—Dr. A. M. Fraser, Southsea; Dr. A. C Ferguson, Thirsk; F. B. M; F. E. B.

G.—Mr. T. Gray, Pontypridd; Dr. L. Grant, Neston; G. A. B.

H.—Mr. H. H. Hurnard, Hingham, Messrs. Hastings Bros, Lond.; Mr. H. Hughes, Ashford; Mr. C. Huntsman, Beulah, Australia; Dr. E. R Hunt, Folkestone; Hovis Bread Flour Co., Lond.; Mr. H. Haycock, Ironville; Hospital for Women, Soho-square, Secretary of Dr. Henry, Sheffield; Mr. A. R. Henchley, Lond.

I.—Isle of Wight County Asylum, Clerk of; International Plasmon, Lond.; Messrs. Idris and Co., Lond.

J.—Mr. T. V. Jackson, Wolverhampton; J H. J., J. J. T.; J. M. K.; J. P. L., J. H.; J. T. N.

K.—Surgeon R. A. Kirby, R.N., Sydney

L.—Dr. J. F. Little, Lond.; L. F; Dr. P. B. Le Franc, Laugh, Dr. J. S. Little Cliftyrdd; Mr. C. Lewis, Pontypridd; L. K

M.—Mr. A. Moxon, Nuneaton; Mr. A. R Macgregor, Hastings, Morison's Advertising Agency, Hull Miss R M. Minty, Lond; Mr. W. Martin, Jesmond Male Nurses' Temperance Cooperation, Lond., Secretary of; Dr J Meehan, Lond. M. S M B; [illegible] Secretary of; M. R. R.; Metropolitan Borough of Lewisham, Clerk of, Dr. T. H. Middlebro', Owen Sound, Canada; Mrs. E. Melville, Lond.; Mr. G. Makin, Hadleigh; Manchester Medical Agency.

N.—Northern Medical Association, Glasgow.

O.—Dr. J. R H. Orr, Wallington.

P.—Dr. W. H. Packer, Cressage, Dr. F. W. Pavy, Lond., P. R. H.; Dr. F. Pollard, Lond; Major W. G. Phillimore, Ascot; P. L

R.—Mr. B. T. Read, Odiham, Mr. C. S. Richardson, Allandale, Dr. G. E Richmond, Leicester, Mr. H. Robinson, Edinburgh; Ronaldum, South Shields, Dr. M. A. Rahim, Lucknow; Royal Southern Hospital, Liverpool, Treasurer of.

S.—Mr. E. T. Smith, Colchester; Mr. E H. Smith, Longton; Springfield House Asylum, Bedford, Medical Superintendent of, Messrs. Spiers and Pond, Lond., Stockport, &c., Provident Dispensary, Secretary of; S. S W., Surgeon, Watford S. W.; Miss C. Spicer, Woodford Green, Mr. W. P. Smart, Lond.

T.—Dr. W. E. F. Tinley, Whitby; Rev. C C. Tancock, Tonbridge, Dr. G. J. K. Turner, Lowestoft; Dr. M. Takayasu Osaka, Japan; T. F. W.; Mr. J. Thin, Edinburgh.

W.—Dr. D. E Walker, Guilsboro'; Mr. J. H. Wallis, Babbacombe, Wm Whiteley, Ltd., Lond., Mr J. R. White Ipswich; Messrs Williams, Humbert, and Co., Lond., W. T. B, Messrs. H. Wilson and Son, Lond., Mr. L. Whitaker, Leeds.

EVERY FRIDAY. **THE LANCET.** PRICE SEVENPENCE

SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

ADVERTISING.

Books and Publications ...	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 6
	Every additional Line	0 0 6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.

Terms for Position Pages and Serial Insertions on application.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris

AN ABSTRACT OF

The Croonian Lectures

ON

THE CHEMICAL SIDE OF NERVOUS ACTIVITY.

Delivered before the Royal College of Physicians of London

BY W. D. HALLIBURTON, M.D., F.R.C.P. LOND., F.R.S.,
PROFESSOR OF PHYSIOLOGY, KING'S COLLEGE, LONDON.

LECTURE I.

Delivered on June 11th, 1901.

AFTER thanking the College for the honour of the lectureship Dr. Halliburton alluded to the large number of times the nervous system had been selected as the subject of the Croonian Lectures, either from the histological, experimental, or clinical side. The chemical side had, however, been in the main neglected. Researches on the brain, the organ of the mind, had been most fruitful in yielding results which were useful to those who treated disease, but they had not unearthed the ultimate meaning of mental processes The scalpel and the microscope had not been successful in discovering the mind; one would also not expect to find it in the test-tubes of the chemist Nevertheless, there were a large number of interesting chemical facts in connexion with the nervous system which were daily becoming more numerous and were not devoid of pathological importance. These the lecturer wished to lay before the College, and he stated that he intended especially to dwell upon those researches which had been done either by himself or by workers in his laboratory during the last few years. He did so, not because he considered them to be of greater importance than work which had issued from other laboratories, but because he understood that one object of the Croonian Lectureship was to give an investigator the opportunity of presenting his own original work in a connected and orderly way before the medical public He expressed his thanks to those who had worked with him, particularly to Dr. F. W. Mott and Dr. T. G. Brodie Much of what he had to say would supplement and extend the chemical work which Dr. Mott laid before the College in his Croonian Lectures last year. The subject of his first lecture would be:—

THE GENERAL COMPOSITION OF NERVOUS STRUCTURES.

Dr. Halliburton first dwelt on the large quantity of water in these tissues; this is highest in the grey matter (from 80 to 90 per cent.), less in white matter (70 per cent.), and least in nerves (from 61 to 65 per cent). [These facts were illustrated by a number of analytical tables]

The solid materials of nervous tissues are extremely numerous. The most important and most abundant, and those of which we have most accurate knowledge, are the proteids and the phosphorised fats. The percentage of proteids is especially high. [Here the lecturer had recourse to analytical tables compiled from his own observations] In grey matter the amount of proteid comprises over 50 per cent. of the solids; this is what would be expected from the fact that protoplasmic structures are most abundant there In any nervous structure the amount of grey matter, of water, and of proteid vary directly the one with the others.

The proteids present are three in number; the most abundant is nucleo proteid (containing 0 5 per cent. of phosphorus); there is not much of this, however, in the white matter. The other two proteids are globulins, one of which coagulates at 47° C. and the other at 70° C. The neuro-globulin which coagulates at the lower temperature is analogous to the cell-globulin obtained from most protoplasmic structures. In view of hyperpyrexia, a subject which the lecturer intended to discuss at greater length later, particular attention was drawn to the low temperature at which neuro-globulin is converted into coagulated proteid.

The other important substance in the nerve-tissues is protagon, the phosphorised fat. On decomposition it yields two substances: one of these is lecithin, the other cerebrin or cerebrins. The cerebrins are sometimes called cerebrosides; they are nitrogenous glucosides, the sugar obtainable having been identified as galactose. The composition of lecithin was described in some detail, but the most important fact in relation to it is its difference from an ordinary fat An ordinary neutral fat on hydrolysis yields a fatty acid and glycerine. Lecithin on hydrolysis yields not only fatty acid and glycerine, but phosphoric acid and choline in addition. The phosphoric acid contains all the phosphorus of the original lecithin and the choline all its nitrogen. Choline is chemically an alkaloid — trimethyl oxyethyl-ammonium hydroxide. It is somewhat toxic and its importance lies in the fact that it is a substance which can be easily recognised by both chemical and physiological tests, and its presence indicates that lecithin, and therefore nervous tissues, have undergone disintegration

The lecture concluded with a brief account of the cerebro-spinal fluid. This fluid differs from ordinary lymph in many particulars, but it apparently plays the part of the lymph of the central nervous system. It is characterised by its low specific gravity, its clear watery character, its paucity in proteid, and the presence in it of an unknown reducing substance which is not sugar. A number of analyses were given, and special attention was directed to Dr StClair Thomson's well known case in which the fluid dripped from a patient's nostril and which furnished a unique opportunity where the absolutely normal fluid could be examined. The observations and experiments made with this fluid by Dr. Thomson in conjunction with Dr. Leonard Hill and the lecturer were given at some length. The importance of cerebro-spinal fluid from the pathological standpoint was that here the products of brain katabolism would naturally be looked for. The normal fluid, for instance, contains the merest traces of choline and of proteid, but in pathological conditions in which the disintegrative side of metabolism preponderates over the assimilative, these materials, the chemical evidence of nervous breakdown, are much increased in quantity.

LECTURE II.

Delivered on June 13th, 1901.

METABOLISM IN NERVOUS TISSUES.

THE evidence that nervous material is during activity in that state of unstable equilibrium which is designated by the term "metabolism" is rather circumstantial than direct. Nervous action stands apart from the action of most other tissues in the extraordinary economy of wear and tear which is noticeable. This is accounted for either by the fact that a very small amount of chemical change is necessary for the manifestation of activity or else that the anabolic side of metabolic phenomena is very evenly and rapidly balanced against the katabolic or disintegrative side. The signs of action which do exist are to be found mainly at the beginnings and endings of the fibres—i e., the cells in brain and cord and the end-organs in muscle and other peripheral structures—and hardly at all in the more passive transmitters of energy, the fibres themselves. The statement is usually made that nerve-fibres are not capable of exhaustion.

These facts coincide with the arrangements of the vascular supply; the centres are richly supplied with blood-vessels, but in a nerve these are comparatively insignificant. The necessity for an abundant supply of oxygen to the brain is seen from the rapidly fatal effects of cerebral anæmia, and Dr. L. Hill's experiments with methylene blue strikingly illustrate how oxygen is used up on cerebral activity. If an anæsthetised animal receives methylene blue by intravenous injection, any part of the brain thrown into action by electrical stimulation loses its blue tint, due to the formation of a colourless reduction product.

A number of observations on the reaction of nervous tissues were then described by Dr. Halliburton. The normal reaction is alkaline; at death it becomes acid, but on activity there is little or no evidence that acid is formed in nerve-fibres. This was carefully tested in some experiments performed in conjunction with Dr. Brodie on non-medullated nerves. These nerves were selected, as the possibly masking effect of a large mass of myelin would then be absent. As a result of excessive stimulation for many hours the nerves in question never became acid.

In nerve centres there is, however, a formation of acid products, especially where nerve-cells were situated. The lecturer next described Dr. A. Waller's experiments which have led him to the conclusion that carbonic acid is produced during the activity of nerve, and he discussed his interesting theory that the medullary sheath and axis cylinder are related nutritionally, so that the absence of fatigue is due to the re-integrating action of the medullary sheath. This view was supported by the experiments of Miss Sowton on non-medullated nerves in which the gradual disappearance of the electrical response on repeated stimulation indicates that fatigue could be demonstrated in nerves which did not possess a medullary sheath. As some doubt had been expressed in regard to the trustworthiness of the galvanometric response the lecturer had, in conjunction with Dr. Brodie, investigated the same problem by another method. The non-medullated nerves selected were those of the spleen, and the muscular contraction of the spleen was recorded plethysmographically. The general plan of the experiments resembled that adopted by Bowditch and others in the investigation of fatigue in medullated nerves; curare was not applicable as a blocking agent and the constant current, even when weak, produced of itself so much depression, and this lasted so long, that it also was given up. The best block ultimately found was cold. The experiments showed that fatigue did not occur or could not be demonstrated in the splenic nerves. Dr. Halliburton then proceeded:

Evidence of fatigue products can be found in the central nervous system by examining cerebro-spinal fluid. The word "metabolism" is so often associated with the activity of the proteid constituents of protoplasm that one is apt sometimes to forget that other materials frequently exhibit a similar alternate or simultaneous series of anabolic and katabolic phases. In nervous structures this is particularly true for the complex phosphorised molecules of protagon. The trace of choline found in normal cerebro-spinal fluid represents the small balance on the wrong (katabolic) side of the account. Further, physiological saline solution, the most harmless of all reagents, will extract choline from perfectly fresh nervous tissues, especially from grey matter, the most active portion of nervous material. All observers do not at present agree with me that choline is the most important substance which goes into solution in such extracts, but all are agreed on its presence, which is the main point. It is also the only organic substance which, up to the present, has been satisfactorily identified. The fact that it is obtained by such simple means indicates that the protagon or lecithin from which it is derived is in a labile condition.

The importance of micro-chemical methods was next insisted on. The most useful of these are those associated with the names of Golgi and Nissl. Golgi's silver-chrome method is one that had led to important results. It was on this method that the adherents of the neuron theory mainly relied. Much doubt had, however, been expressed as to its absolute trustworthiness, and certainly it was not nearly so sensitive and delicate a method as that of Nissl for demonstrating changes in nerve cells. The significance of Nissl's granules which were demonstrable by methylene blue formed the subject of the next section of the lecture. Though it is doubtful whether chromatolysis occurred during ordinary fatigue, there is no doubt that excessive activity and numerous other pathological processes are characterised by the disintegration and disappearance of Nissl's granules. Chemically the granules are composed of nucleo-proteid, and no doubt their presence is an indication of a store of energy-producing substance. The lecture concluded by a reference to sleep, nature's great restorer for exhausted "nerves." Dr. Halliburton said:

Chemical theories which explain sleep by the production of soporific substances—leucomaines, reducing substances, &c.—during waking hours depend upon the slenderest of evidence which will not stand rigid inquiry. Loeb's recent researches on rhythmical action in contractile tissues have shown that the stimulus to alternate periods of rest and action consists of certain ions. In order that rhythmic action may be maintained a nicely balanced admixture of ions must be present. It is just within the bounds of possibility that nerve-cells may be brought within the same category and that the phenomenon of alternate periods of wakefulness and sleep may in the future be found explicable by the comparatively simple action of inorganic substances or of their constituent ions.

Some observers have sought for the meaning of sleep by examining the brains of animals which have been more or less deeply narcotised. The moniliform swellings which can then be seen on the dendrites have been taken by Demoor and others to be evidence that the dendrons have retracted, and so connexions with other dendrons are interrupted. Lugaro, on the other hand, has failed to find these varicosities and has formulated another bio-physical theory of sleep which is the exact contrary of Demoor's. He maintains that the interlacing of dendrites is much more intimate during sleep than during consciousness, and he explains sleep by supposing that the definite and limited relationships between neurons no longer exists, and these are lost or rendered ineffective by the universality of the connecting paths. Such a divergence of views is easy to understand, for they depend upon observations made by a single method (Golgi's), and that not a very trustworthy one.

A more satisfactory investigation of the effect of anæsthetics on nerve-cells has been carried out by Dr. Hamilton Wright mainly in the physiological laboratory at King's College. The research is important because methods other than Golgi's, especially that of Nissl, have been employed as well. In rabbits and dogs the moniliform enlargements certainly are always seen. Lugaro failed to find them because the dogs he used were not anæsthetised for a sufficient length of time. Dogs are more resistant than rabbits to ether and chloroform, and changes in the nerve-cells are not noticeable until at least four hours' narcosis has been produced.

Owing to the chemical action of the drug on the cells the Nissl bodies have no longer an affinity for methylene blue and the cells consequently present what Wright calls a rarefied appearance; when this is pronounced the cells appear like skeletons of healthy cells. In extreme cases the cells look as though they had undergone a degenerative change and after eight or nine hours' anæsthesia in dogs even the nucleus and nucleolus lose their affinity for basic dyes. The change, however, is not a real degeneration and passes off soon after the disappearance of the drug from the circulation. Even after nine hours' deep anæsthesia there is not a cell which is permanently deformed; the branches no longer present varicosities and all the axis cylinders as tested by the Marchi method are healthy. The action of chloroform and ether is no doubt bio-chemical; the chemical action of the anæsthetic interferes with the normal metabolic activity of the cell-bodies and this produces effects on the branches of the cell. The moniliform enlargements seen during the temporary pseudo-degenerative effects produced by the drug are comparable to the similar swellings of the axis cylinder produced by hydration or some chemical change of that nature which occurs during the early stages of Wallerian degeneration. The enlargements, therefore, are not the primary cause of loss of consciousness, but are merely secondary results of changes in the cell-body.

Dogs and rabbits differ in their susceptibility to the influence of anæsthetics, and this corresponds to the readiness with which the histological changes just described are produced. The effects are probably the same in kind for all animals, man included, though they differ in degree. One should, however, be very chary in concluding that the artificial sleep of a deeply narcotised animal is any criterion of what occurs during normal sleep. The sleep of anæsthesia is a pathological condition due to the action of a poison; the drug reduces the chemico-vital activities of the cells, and unconsciousness is in a sense dependent on an increasing condition of exhaustion, which may culminate in death. The sleep of health, on the other hand, is not produced by a poison; it is rather the normal manifestation of one stage in the rhythmical activity of the nerve-cells, and though it may be preceded by fatigue or exhaustion it is accompanied by repair, the constructive side of metabolic action.

NOTIFICATION OF PULMONARY TUBERCULOSIS.—At the monthly meeting of the Teignmouth District Council held on June 3rd it was decided to draw the attention of the local medical men to the medical officer of health's suggestion that cases of pulmonary tuberculosis should be notified. The registrar of deaths was instructed to inform the medical officer of health of all deaths from tuberculosis.

STANDARDISATION OF CALMETTE'S ANTI-VENOMOUS SERUM WITH PURE COBRA VENOM:

THE DETERIORATION OF THIS SERUM THROUGH KEEPING IN INDIA.

BY GEORGE LAMB M.B. GLASG.,
CAPTAIN, INDIAN MEDICAL SERVICE,
AND
WILLIAM HANNA, M A., M.B. R.U.I., D.P.H. CANTAB
(*From the Research Laboratory, Bombay.*)

THE standardisation of an anti-venomous serum is of great practical as well as theoretical importance. It is the practical side of the question to which we propose to confine ourselves in this paper.

The snake venom which M. Calmette[1] employs both for the purpose of immunisation of his horses and for the purpose of standardisation of the serum recovered from these immune horses is a mixture of colubrine and viperine poisons, the former making up about 80 per cent of the mixture. A solution of this mixture is heated at about 73° C. for half an hour and then filtered. It is this mixed and heated poison which is employed at Lille for both the purposes above mentioned.

Myers[2] has correctly pointed out that as we have in all cases clinically to deal with intoxication by a pure venom, either colubrine or viperine, and also by an unheated venom, it is preferable, if the true value of this serum as a curative agent against snake-bite is to be determined, to use a pure unheated poison for its standardisation. The object, then, of our investigation was to ascertain as exactly as possible the neutralising power of Calmette's anti-venomous serum when tested with pure, fresh, and carefully dried cobra poison. Further, in consequence of the observations made by us in a recent case of cobra intoxication,[3] we have extended our investigations so as to ascertain if any deterioration of the serum takes place through keeping in this country. In another communication we hope to be able to record the results of similar experiments made with the venom of Russell's viper (*Daboia Russellii*)

The method of standardisation of the anti-venomous serum which we adopted in our experiments was the method now recognised as giving the most accurate results. It is based on the now almost generally acknowledged fact that snake-poison toxin and its antitoxin interact directly and that this neutralisation is, so far as our knowledge goes, independent of vital activity. The evolution of this method is briefly stated as follows The method which M. Calmette[4] recommends and still practises is the following:—The dose of venom (mixed and heated) which will kill a rabbit of two kilos in weight in from 15 to 20 minutes when injected into *the marginal vein of the ear is determined; then the* minimum amount of serum which will prevent death when injected intravenously five minutes before this dose is ascertained, which is done by experimenting with varying quantities of serum. If one cubic centimetre is able to accomplish this M. Calmette says that the serum contains 2000 immunity units per cubic centimetre or 20,000 per 10 cubic centimetres.

Martin of Melbourne[5] was the first to use the method of mixing the venom and serum *in vitro* before the injection In some early experiments with the poison of the Australian tiger snake (*Hoplocephalus curtus*) he used only a single lethal dose in estimating the curative value of Calmette's serum. However, in some later researches he recognised that this method was fallacious inasmuch as if the amount of serum was able to neutralise even a mere fraction of the single lethal dose the animal would recover even though the larger part of the poison remained unneutralised He therefore recommended the employment of at least 10 lethal doses.

Along with one of us Major D. Semple, R A.M.C.,[6] has pointed out that the following objections could be taken to Calmette's method: (1) that there is no direct estimation of *the amount of venom which a given quantity of serum will* neutralise;[7] and (2) that there is no estimation made of the amount of venom the injection of which an untreated animal is capable of surviving. Further, we showed that Calmette's test dose for the rabbit amounted to about three lethal doses for that animal. We thus gave a value for the serum in terms of its neutralising power and not as in the method used at Lille in terms of its preventive power. With such a small test dose as three lethal doses, unless careful attention be paid to the second objection mentioned above, it is evident that a much enhanced neutralising power would be given to the serum.

The next step in advance was made by Myers.[8] As previously mentioned this observer pointed out that in order to ascertain the strength of an anti-venomous serum for practical purposes it was *a priori* preferable to test it against a pure venom, such as pure cobra poison or pure Daboia poison. He further showed that it was preferable also to use unheated venom, inasmuch as heating at the temperature employed by M. Calmette causes important changes in cobra venom, altering it considerably from the natural poison as injected by a snake Further, Myers recommended that a cheap, small, *and susceptible* animal should be employed. He showed that mice of about 15 grammes in weight answer all requirements, and recommended that these animals should be used. He further designated Calmette's method as unscientific, inasmuch as by injecting the serum before the venom the completion of the reaction between these two bodies does not take place before they enter the blood-stream He showed that much more accurate results are attained when the poison and serum are mixed *in vitro* than by Calmette's method. Finally, he recognised the necessity of using a multiple, and if possible a large multiple, of *the minimum lethal dose.*

In the series of experiments which we have now to present these various points were kept carefully in view. We may preface the protocols by giving a short account of the method employed and of the general results obtained.

The animals which we used were rats from 115 to 120 grammes in weight These fulfil all the conditions indicated by Myers. They are cheap and the supply is abundant, while with care no difficulty is experienced in handling them At the same time they are extremely susceptible to cobra poison, as susceptible as, if not more so than, any of the other laboratory *animals Thus for a mouse of 15 grammes* Myers[9] states the minimum lethal dose of cobra venom to be 0 012 milligramme or in other words 0 8 milligramme per kilo. For rabbits Elliot[10] has found that a certain lethal dose of pure cobra poison injected subcutaneously is 0 7 milligramme per kilo. In our experiments we found that the minimum lethal dose of this poison for a rat of about 120 grammes was 0 04 or at the rate of 0 33 milligramme per kilo. Another reason for selecting rats was that horses' serum, even in large doses, has no lethal action on them as it has on mice. As in the course of our experiments large *doses of serum* had to be given this was an important point Great care was taken in choosing rats of one size for all experiments—viz, of about the weight mentioned above The venom used was pure, fresh, unheated cobra poison. This was collected from a number of living, full-sized, healthy cobras by "milking" the glands after the method practised by M Calmette. The poison was then thoroughly dried over lime and kept till used in an air-tight tube away from light Before weighing it was pounded in a mortar and was then again dried over sulphuric acid. A solution of this powdered venom in normal salt solution was made The strength of this solution was 0 1 per cent. When necessary a tenfold dilution of this material was employed All the solutions were freshly made, as required, so that no deterioration of the poison was possible through keeping in solution All injections were made in the inner side of the thigh.

Series No 1 was undertaken to determine the minimum lethal dose for a rat of from 115 to 120 grammes in weight.

---

[1] Annales de l'Institut Pasteur, 1897, p. 225

[2] THE LANCET May 19th, 1900, p. 1433.

[3] THE LANCET, Jan 5th, 1901, p. 25.

[4] Loc cit.

[5] Intercolonial Medical Journal of Australasia, August 20th, 1897. Ibid, April 20th, 1898. Brit. Med. Jour, 1898, p. 1120.

[6] Brit. Med Jour, April 1st, 1899, p 781.

[7] This is evident from the description of Calmette's method already stated From this it will be seen that the standard which he adopts is the weight in grammes of a rabbit which one cubic centimetre of serum can protect against a quantity of poison which would kill a control animal in 20 minutes.

[8] Loc. cit.

[9] Loc. cit

[10] Brit. Med Jour, Feb 10th, 1900, p. 308.

A certain lethal dose was found to be 0·04 milligramme and the maximum non-lethal dose was found to be 0 035 milligramme.

The remaining series of experiments were undertaken with a view of determining the neutralising power of various samples of anti-venomous serum. These samples were of different ages and had been in India for varying periods of time. They had been stored in different places and had therefore been exposed to different degrees of heat. The test dose of venom which was used in all cases consisted of ten times the minimum lethal dose—i.e., 0·4 milligramme. This quantity was mixed *in vitro with varying amounts* of the serum to be tested. The mixture was allowed to stand at laboratory temperature (about 25° C.) for at least half an hour. All injections were made, as in the experiments detailed in Series No. 1, subcutaneously in the inner side of the thigh. In calculating *the amount* of venom which the serum had been able to neutralise or had failed to neutralise the maximum non-lethal dose—i.e., 0·035 milligramme—was deducted from the test dose in all cases.

In Series No. 2 a serum which had recently been received from Lille was used. We take this opportunity of thanking M. Calmette for his courtesy in placing this serum at our disposal. This sample was dated Sept. 17th, 1900. It arrived in Bombay on Oct. 14th of the same year. Our experiments with it were made between Nov. 10th and Dec. 5th. We are justified, therefore, in considering this as perfectly fresh serum, as fresh as it would be possible to get in this country. *A reference to the protocols will show* that 0 5 cubic centimetre was able to prevent death while 0 45 cubic centimetre did not accomplish this. In other words, 0·5 cubic centimetre of this serum was able to neutralise 0·4 − 0·035 milligramme = 0·365 milligramme—namely, 1 cubic centimetre could neutralise 0 73 milligramme. Working with a mixed and heated venom Semple and one of us[11] found that one cubic centimetre of fresh serum was able to neutralise 1 5 milligrammes of this mixed poison. This is the same value which M. Calmette attributes to his serum when this is expressed in terms of the neutralising power of the serum. Comparing these three results we see at once, therefore, the importance of testing the serum against a pure unheated venom and not with a mixed and heated poison.[12]

The serum employed to perform the experiments detailed in Series No. 3 was obtained by purchase from Messrs. Phillips and Co., chemists, Bombay. It bore the date May 8th, 1900. The vendors informed us that they had received it from Europe about the end of August, 1900, and that it had not been out of Bombay. Our experiments were made between Dec. 5th and 12th, 1900. It will be seen therefore that this serum had been in Bombay for about three months. One of these months—viz., October—is one of the hottest months of the year.

A reference to the protocols will show that 0·6 cubic centimetre was able to prevent death, while 0·5 cubic centimetre would not accomplish this. It is evident therefore that one cubic centimetre of this serum was able to neutralise 0 61 milligramme. This result would appear to point to a slight deterioration of the serum having taken place through keeping in Bombay, even for the short time mentioned above.

The serum used in Series No. 4 of our experiments was obtained from the Natural History Society of Bombay. We take this opportunity of thanking Mr. Phipson, the honorary secretary of that society, for his kindness in placing it at our disposal. This sample of serum was not dated. Mr. Phipson, however, thought that it had been in his possession for about four years. On reference to Lille, M. Calmette informed us that he did not know the exact age of the serum, but it was at least more than three years old. From the protocols it will be seen that although one rat which received 0 75 cubic centimetre of serum recovered after being very ill, the quantity of serum necessary to prevent a fatal result with certainty was 1·25 cubic centimetres. It is evident therefore that *one cubic centimetre of this serum was able to neutralise only 0·29 milligramme of pure cobra venom.*

The fifth series of *experiments detailed in the protocols* was made with serum which was sent to us by Captain Mitchell of Nasik. In view of the results obtained the history of this sample of serum is interesting. It was originally the property of the Bombay Natural History Society and was got from Europe at the same time as the serum used in Series No. 4 of our experiments. It was, therefore, more than three years old. Soon after its arrival in Bombay it was sent to Nasik. It was kept there till Captain Mitchell sent it to us in October, 1900. Our experiments with this serum were made between Oct. 16th and Nov. 1st, 1900. A reference to the protocols will show that 0·8 cubic centimetre was able to prevent death when our test dose was employed. In other words one cubic centimetre of this *serum was able to neutralise with certainty 0·46 milligramme* of pure cobra poison.

For Series No. 6 of our experiments the sample of serum was obtained from Lieutenant-Colonel Gimlette, I.M.S., residency surgeon, Indore. This sample was dated Oct. 17th, 1896. Its history was as follows. It was imported to India by Messrs. Smith, Stanistreet, and Co., chemists, Calcutta, arriving in this country about the end of August, 1899. It was sent to Indore on Sept. 6th of the same year. Colonel Gimlette despatched it to Bombay at the end of November, 1900, and our experiments were completed between Nov. 29th and Dec. 3rd. It will be seen, therefore, that for over a year it lay at Indore and was thus subjected to the great heat of this place during one hot season. A reference to the protocols will show that 1·7 cubic centimetres of this serum failed to neutralise the test dose, while two cubic centimetres were able to accomplish this. The rat which received this latter quantity was *ill* for a short time. We may take it therefore that two cubic centimetres were the amount which could neutralise just over nine lethal doses, or in other words that one cubic centimetre was able to neutralise only 0 18 milligramme of venom.

The experiments detailed in Series No. 7 of the protocols were made with a serum received from Mr. Hankin of Agra. This sample bore the date Sept. 17th, 1895. It had been stored in Agra for over four years. It was received in Bombay on Oct. 17th, 1900, and our experiments with it were completed between Nov. 27th and Dec. 10th. A glance *at the protocols will show that 2·5 cubic centimetres of this* serum—i.e., the largest amount used—were not able to prevent death when our test dose of 10 lethal doses was employed. From this it is evident that one cubic centimetre of this Agra serum could not neutralise even 0·14 milligramme of poison. The serum can therefore be said to have lost all neutralising power for practical purposes.

The serum employed in the eighth and last series of experiments detailed in the protocols was received from Lieutenant W. G Liston, I M.S., Civil Surgeon, Ellichpur, Berar. It was dated Nov. 7th, 1896. Lieutenant Liston had purchased it from Lille in September, 1898, and had brought it with him to India in the following month. During the hot seasons of 1899 and 1900 the serum had been subjected to the heat of Berar at two stations—viz., Hingoli and Ellichpur. It was sent to Bombay in December, 1900. The experiments made by us were completed between Dec. 10th and 14th. *From the protocols it will be seen that two cubic* centimetres of this serum failed to neutralise the test dose. We can therefore conclude that one cubic centimetre was not able to neutralise 0·18 milligramme of venom. It is unfortunate that no more serum was available to complete this series. It is, however, evident that like the Agra serum it had lost for all therapeutical purposes its power to neutralise pure cobra poison.

We may now pass on to consider some of the practical bearings which the data collated above and detailed in the protocols have on the standardisation of anti-venomous serum and on the therapeutics of cobra poisoning. First, our experiments conclusively prove Myers's statement that it is necessary in standardising this serum to use a pure unheated poison. Both in Calmette's method of standardisation and in the method followed by Semple and one of us a mixed venom containing about 80 per cent. of colubrine poison was employed. The solution of this mixture was heated at 73° C. for half an hour and was then filtered. The conclusion arrived at in both cases was the same—viz., that one cubic centimetre of serum was able to neutralise 1·5 milligramme of this venom. As this mixture contained only a fifth part of viperine poison it appeared justifiable to conclude that one cubic centimetre of serum would be able to neutralise at least about 1·2 milligrammes of pure cobra poison. Our experiments, however, have shown that such a hypothesis is not borne out by fact and that one cubic centimetre of serum can only neutralise about 0 7 milligramme of pure cobra venom.[13] Secondly, it is evident that any attempt to calculate the therapeutic dose of the serum can only be made when the exact measure of its power of neutralising a natural poison has been ascertained. Let us consider this point in some detail.

---

[11] Loc. cit.

[12] This comparison, as well as other similar comparisons to be detailed later, is made on the assumption that all [illegible] to slight initial differences in this neutralising power.

Calmette recommends that from 10 to 20 cubic centimetres[14] be given as the dose in all cases of bites from poisonous snakes. We shall see later that such a dose would probably be insufficient in some cases of cobra bite.

Semple and one of us[15] calculated that 15 cubic centimetres were sufficient to save a patient if this quantity were injected into the blood before the lapse of such period of time as may be required for the absorption of the lethal dose of venom. This calculation, however, was made on the following assumptions :—1. That the minimum lethal dose of cobra venom for a man of 30 kilos in weight was, as estimated by Fraser[16] about 31 milligrammes and that consequently we may take 30 milligrammes as the maximum non-lethal dose for an average man. 2. That a full-sized cobra can inject at each bite a quantity of venom which in the dried state amounts to from 30 to 45 milligrammes. These amounts have been demonstrated experimentally by *Calmette.*[17] *To save a man bitten by a cobra, injecting the* maximum quantity possible, we should therefore have to give an amount of serum capable of neutralising 45 – 30 milligrammes = 15 milligrammes of cobra poison. 3. That one cubic centimetre of serum was capable of neutralising one milligramme of pure cobra venom. This figure was arrived at by assuming that pure unheated cobra poison was not more than a third more deadly that the mixed venom which we employed. This mixture it will be remembered, contained 80 per cent. of colubrine poison, and one cubic centimetre of serum was able to neuralise 1 5 milligrammes of it. It is evident, therefore, that were these three assumptions correct 15 cubic centimetres of serum would be a safe dose to employ in all cases of cobra-bite. Our experiments, however, have demonstrated that one cubic centimetre of serum is only capable of neutralising about 0 7 milligramme of pure cobra venom, while Myers[18] from his experiments on mice makes the quantity neutralised by one cubic centimetre even less than this—viz , 0 6 milligramme. Now, basing the calculation on this fact—viz , that one cubic centimetre of serum can neutralise from 0 6 to 0 7 milligramme of cobra venom—and on the first two assumptions stated above, we arrive at the conclusion that instead of 15 cubic centimetres of serum, a dose of from 22 to 25 cubic centimetres would have to be given to prevent death from the bite of a full-sized cobra.

As we have already stated, one of the assumptions on which the above calculation is founded is that the minimum lethal dose of cobra venom for a man is as much as 31 milligrammes This assumption is based partly on the fact, experimentally shown by Calmette[19] and other observers, that for such animals as the guinea pig, the rabbit, the dog, the monkey and the ass the larger the animal the greater is the amount of cobra venom, weight for weight, required to cause death. This rule, however, does not hold good for all species of animals. Thus Myers[20] has shown that the minimum lethal dose of cobra poison for a mouse of 15 grammes in weight is 0 012 milligramme. If the rat were as susceptible to this poison as is the mouse the lethal dose for a rat of 120 grammes weight [illegible] We have, however, seen above [illegible] for a rat of this size is only 0 04 milligramme—namely, that the rat is at least twice as susceptible to cobra venom as the mouse.

In view of this fact it would seem expedient in estimating the dose of anti-venomous serum to be given in a case of cobra-bite to base our calculations on the assumption that man is as susceptible as the most susceptible animal with which experiments have been made—viz , the rat Assuming, then, that man is as susceptible as the rat, it is evident that the minimum lethal dose for a man of 60 kilogrammes in weight would be about 20 milligrammes. We can therefore calculate that if a cobra had injected the maximum amount of venom possible—viz , 45 milligrammes (an assumption which it would be necessary to make in every case of snake-bite)—the quantity of serum required to merely save the life of anyone receiving this injection would be the amount which was capable of neutralising at least 45 – 19 milligrammes = 26 milligrammes. This amount of fresh serum—namely, serum of which one cubic centimetre was able to neutralise about 0 7 milligramme of cobra venom, would be about 37 cubic centimetres It is interesting in this connexion to point out that Calmette[21] himself has arrived at the conclusion that the minimum lethal dose of cobra venom for a man is only about 10 [illegible] hypothesis it is evident that [illegible] centimetres of serum to save [illegible] maximum quantity of venom which a cobra can inject.

Our contention that 15 cubic centimetres of serum is quite an inadequate dose for the treatment of a case of cobra bite receives corroboration from consideration of the accidental case which occurred in this laboratory a short time ago[22] The only treatment employed in this case was the subcutaneous injection of anti-venomous serum. Immediately after the accident 18 cubic centimetres of old serum were injected. *This was the serum obtained from the Bombay Natural* History Society the neutralising power of which was tested in the experiments detailed in Series No 4 of the protocols. From a reference to the protocols it will be seen that one cubic centimetre of this serum was able to neutralise 0 29 milligramme of pure cobra venom. It follows, then, that 18 cubic centimetres of such a serum was equivalent to 7 5 cubic centimetres of fresh serum—that is, of serum one cubic centimetre of which was capable of neutralising 0 7 milligramme of venom. Our patient therefore received as a preliminary dose a quantity of serum equivalent to 7 5 cubic centimetres of a perfectly fresh serum. In spite of this injection well-marked general symptoms referable to the central nervous system set in from about two and a half to three hours after the accident The case in all probability would have had a fatal ending had not a second injection of fresh serum been given before the symptoms had progressed too far.

Now, in this case the poison from one gland only was injected. We can therefore conclude that 15 cubic centimetres of fresh serum would have been quite inadequate to have prevented the onset of symptoms of intoxication and probably would not have prevented death had the patient received the quantity of poison contained in both glands. Shortly after the onset of symptoms 10 cubic centimetres of comparatively fresh serum were injected. This serum was got from Messrs. Phillips and Co (*vide* Series No. 3 in the protocols). We have seen that one cubic centimetre of this serum was capable of neutralising 0 61 milligramme of cobra poison. The dose which was injected was therefore equivalent to 8 5 cubic centimetres of perfectly fresh serum such as was used in the experiments detailed in Series No. 2 of the protocols. Our patient therefore received in all a quantity of serum equivalent to 16 cubic centimetres of perfectly fresh material. All symptoms in this case, in which the bite was inflicted by only one fang, soon passed off after the second injection of serum Since, however, the second dose was given after some of the poison had already joined on to the central nervous system it is for *a priori* reasons necessary to conclude that a smaller dose would have sufficed if the whole quantity had been injected before the onset of any symptoms. On the other hand, it must be remembered that the cobra which inflicted this bite had been in captivity for some months and would not consequently yield as much poison as an ordinary snake in nature would do For is it an observation of common occurrence in this laboratory that a cobra newly caught will yield from 20 to 30 large drops of poison, while after he has been a captive for some time this quantity will have diminished to from six to 10 drops and in time to *nil*

From what we have stated above it is evident that the question of the dose of serum to be injected in cases of cobra bite turns upon factors which cannot be directly experimentally determined—namely, (1) upon the amount of poison which the snake has injected and (2) upon the amount of cobra venom which an average man can survive. In view of the fact, however, that in the treatment of any case of cobra-bite we must always estimate the dose of antivenine to meet the possibility of the snake having injected the maximum quantity possible—i e., about 45 milligrammes—and in view of the fact that man may be as susceptible, weight for weight, as the rat, or perhaps more susceptible, it seems to us, from the considerations put forward above, that a dose of from 30 to 35 cubic centimetres of fresh serum or the equivalent of this should be given in every case of cobra-bite. A larger dose would of course be necessary if symptoms had set in before the treatment was begun. At any rate the history of this case shows that a dose of about 15 cubic centimetres would be quite inadequate in most cases of cobra-bite.

---

[13] The serum which we used in these experiments although newly arrived in India had necessarily been subjected for a short time to the heat of the voyage out—viz , in the Red Sea and the Indian Ocean. A slight deterioration may thus have taken place. This, however, could only account for a small proportion of this great difference.

[14] This is the dose prescribed in the printed instructions sent out with every bottle of serum.

[15] Loc. cit.

[16] Brit Med. Jour., 1896, p 867.

[17] Le Vénin des Serpents, 1896.

[18] Loc. cit.

[19] Loc. cit.

[20] Loc. cit.

[21] Loc cit

[22] THE LANCET, Jan. 5th, 1901, p. 25.

We may now pass on, in conclusion, to consider briefly the question of the deterioration which anti-venomous serum undergoes by keeping in India. The data bearing on this subject are contained in detail in the protocols, Series No. 2 to No. 8 inclusive. These data may be briefly summarised in tabular form as follows:—

TABLE I.—*The Deterioration of Anti-venomous Serum by Keeping in India.*

Series in protocols.	Age of the serum.	Length of time in India.	Where kept in India.	Neutralising power.	Remarks.
No. 2	Two months.	One month.	Bombay.	1 cubic centimetre neutralised 0·73 milligramme.	This serum may be regarded as perfectly fresh serum.
No. 3	Seven months.	Three months.	Bombay.	1 cubic centimetre neutralised 0·61 milligramme.	—
No. 4	Over three years.	About three years.	Bombay.	1 cubic centimetre neutralised 0·29 milligramme.	—
No. 5	Over three years.	About three years.	Nasik and Bombay.	1 cubic centimetre neutralised 0·46 milligramme.	It is uncertain how long this sample had been in Bombay and how long in Nasik.
No. 6	Four years.	One and a quarter years.	Indore.	1 cubic centimetre neutralised 0·18 milligramme.	—
No. 7	Five years.	Over four years.	Agra.	1 cubic centimetre failed to neutralise 0·14 milligramme.	—
No. 8	Four years.	Two and a quarter years.	Bombay and Berar.	1 cubic centimetre failed to neutralise 0·18 milligramme.	In Bombay six months and in Berar one and three-quarter years.

The protective power ascribed by M. Calmette to al samples of sera sent out from Lille is 20,000 units per 10 cubic centimetres. We may, therefore, assume that all brews when fresh possess practically the same neutralising power (*vide* Footnote 12). A study of the above table shows that a progressive deterioration takes place from keeping the serum in India. Thus it will be noticed on the one hand that while the serum which was seven months old and had been in India for only three months (Series No. 3) already showed a slight diminution in its neutralising power, on the other hand, the sera which had been kept for some years in the Berar (Hingoli and Ellichpur), i.e., Series No. 8, and in Agra, i.e., Series No. 7, had practically lost all neutralising power, and the sera which had been stored at Indore, Bombay, and Nasik had detriorated to a considerable extent but had not completely lost all neutralising power.

Let us consider for a moment the climatic conditions as regards temperature which prevail at these different places. In the cold season Agra and the Berars have a comparatively low temperature; but for three or four months of the year the heat in these districts is excessive, the maximum temperature in the shade being seldom below 105° F. and often reaching 110° F. and over. Indore also has a severe hot season and a comparatively cool "cold" season, a similar climate in fact to that of Berar, although, perhaps, the maximum temperature does not reach so high as in the other two cases. The great neutralising power of the serum which had been kept at Indore, compared with the samples kept at Berar and Agra, can be accounted for by the fact that the former sample had been subjected to this great heat for only one hot season, while the sera kept at Berar and Agra had been stored in these districts during two and four hot seasons respectively.

The results obtained with Series No. 4 and Series No. 5 are especially interesting. Both these sera were of the same age and were imported to Bombay at the same time. One sample—viz., No. 5—had been stored for a considerable time at Nasik after Bombay. Now, the temperature of Nasik during the cool season of the year is much lower than is that of Bombay. On the other hand, during the hot months, March to May inclusive, the maximum shade temperature of Nasik is only slightly lower than is that of Bombay, while the minimum temperature is much lower. On the whole, therefore, we may take it that the serum which had been kept at Nasik had not been subjected to nearly such a high mean temperature during the year as had that serum which had been stored in Bombay. In consequence, the neutralising power of the former was more than a half greater than the neutralising power of the latter. We may conclude then from these data that anti-venomous serum undergoes a progressive and fairly rapid deterioration when stored in hot climates, and that this deterioration is greater and more rapid the higher the mean temperature to which it is subjected. The practical bearings of the results of these observations are so patent as to require no further discussion.

PROTOCOLS.

Series No. 1.—The poison used was carefully dried, pure, fresh cobra venom. It was unheated. A 0·1 per cent. solution in sterile normal saline solution was made. Ten-fold and hundred-fold dilutions of the original solution were used when necessary. The weights refer to the original dried venom. All rats were carefully selected of about 118 grammes weight. The injections were made subcutaneously in the inner side of the thigh.

TABLE II.—*Experiments to determine the Minimum Lethal Dose of Pure Cobra Venom for a Rat of about 118 grammes.*

Animal.	Amount of dried venom in milligrammes.	Result.
Rat 1	0·1	Died within 2 hours.
" 2	0·09	" " "
" 3	0·08	" " "
" 4	0·07	" " 3 "
" 5	0·06	" " "
" 6	0·05	" " "
" 7	0·05	" " "
" 8	0·045	Very ill for 24 hours; died in four days.
" 9	0·04	Died in 3¼ hours.
" 10	0·04	" 2¼ "
" 11	0·035	Ill for 16 hours; recovered.
" 12	0·035	" 6 " "
" 13	0·03	Slightly ill for 3 hours; recovered.
" 14	0·03	No symptoms.
" 15	0·025	" "
" 16	0·02	Slight symptoms; recovered.
" 17	0·01	No symptoms.
" 18	0·005	" "

From the above table it appears, then, that 0·04 milligramme is a certain lethal dose and that 0·035 milligramme is a dose which a rat of this size can survive—i.e., a maximum non-lethal dose. In the series of experiments No. 2 to No. 8, detailed hereafter, 10 lethal doses—namely, 0·4 milligramme—were mixed *in vitro* with varying amounts of sera of different ages and which had been kept under different conditions of temperature. The mixtures were allowed to stand at laboratory temperature (about 25° C.) for at least half an hour and were then injected subcutaneously in the inner side of the thigh. Carefully selected rats of about 118 grammes were used in all cases. In calculating the amount of venom which the serum had been able to neutralise or had failed to neutralise the maximum non-lethal dose—

namely, 0 035 milligramme—was deducted in all cases. These series are as follows.

Series No. 2.—The serum used in this series of experiments was received from Lille in October, 1900. It was dated Sept. 17th, 1900 The experiments were completed between Nov. 10th and Dec. 5th.

TABLE III.—*Experiments to ascertain the Amount of Venom which One Cubic Centimetre of Fresh Serum newly imported was capable of neutralising.*

Animal.	Amount of dried venom in milligrammes.	Amount of serum in cubic centimetres.	Result.
Rat 1 ...	0·4	0 15	Died in 5 hours.
,, 2 ...	0 4	0 2	,, 10½ ,,
,, 3 ...	0·4	0·2	,, 7½ ,,
,, 4 ...	0 4	0 2	,, 2¾ ,,
,, 5 ...	0·4	0 2	Died within 48 hours.
,, 6 ...	0·4	0 25	Died in 2¾ hours.
,, 7 ...	0 4	0·25	Died within 17 hours
,, 8 ...	0·4	0 25	,, ,, 5 ,,
,, 9 ...	0 4	0 3	Very ill for 48 hours, recovered.
,, 10 ...	0 4	0 3	Died in 5 hours.
,, 11 ...	0·4	0·3	,, 2¾ ,,
,, 12 ..	0 4	0·3	Died within 5 days.
,, 13 ...	0·4	0 35	,, ,, 48 hours.
,, 14 ...	0 4	0 35	,, ,, ,, ,,
,, 15 ...	0·4	0 35	Died in 17 hours.
,, 16 ...	0 4	0·4	Died within 40 hours
,, 17 ...	0 4	0·4	Ill for 5 days; recovered.
,, 18 ...	0 4	0 4	Died within 48 hours.
,, 19 ...	0·4	0 45	,, ,, 3 days.
,, 20 ...	0 4	0·45	Died after 8 days
,, 21 ...	0 4	0 5	No symptoms.
,, 22 ...	0 4	0·5	Ill for 2 days; recovered.
,, 23 ..	0·4	0 6	,, ,, ,,
,, 24 ...	0·4	0·7	No symptoms.

From the above series we can conclude that 0 45 cubic centimetre of this serum failed to neutralise with certainty 0 4 — 0 035 milligramme = 0 365 milligramme, while 0 5 cubic centimetre could neutralise this amount. In other words, one cubic centimetre was able to neutralise 0 73 milligramme.

Series No 3.—The serum used in this series was dated May 8th, 1900 It was purchased from Messrs. Phillips and Co., chemists, in Bombay, who had received it from England about the end of August. The experiments were completed between Dec 5th and 12th. The serum had, therefore, been in Bombay during one of the hottest months of the year—viz., October.

TABLE IV.—*Experiments to ascertain the Amount of Venom which One Cubic Centimetre of Comparatively Fresh Serum was capable of neutralising.*

Animal.	Amount of dried venom in milligrammes	Amount of serum in cubic centimetres	Result.
Rat 1 ...	0·4	0 2	Died in 2 hours.
,, 2 ...	0·4	0 3	,, ,, ,,
,, 3 ...	0 4	0 4	Died within 42 hours.
,, 4 ...	0·4	0 5	,, ,, ,, ,,
,, 5 ...	0 4	0 5	,, ,, 46 ,,
,, 6 ...	0·4	0 6	Ill for one day; recovered.
,, 7 ...	0·4	0 6	No symptoms.
,, 8 ..	0·4	0·7	,, ,,
,, 9 ...	0·4	0·7	,, ,,
,, 10 ...	0 4	0·8	,, ,,

From the above series we can conclude that 0 5 cubic centimetre of this serum failed to neutralise 0 4 — 0 035 milligramme = 0 365 milligramme, while 0 6 cubic centimetre could neutralise this amount at least—namely, that one cubic centimetre was able to neutralise 0·61 milligramme.

Series No. 4—This serum had been in the possession of the secretary of the Bombay Natural History Society for at least three years. M. Calmette informed us that it was at least three years old, probably more.

TABLE V.—*Experiments to ascertain the Amount of Venom which One Cubic Centimetre of a Serum which had been in Bombay for over Three Years was capable of neutralising*

Animal.	Amount of dried venon in Milligrammes.	Amount of serum in cubic centimetres.	Result.
Rat 1 ...	0 4	0 25	Died in 1½ hours.
,, 2 ...	0·4	0 5	,, ,, ,,
,, 3 ...	0 4	0 75	,, 3 ,,
,, 4 ..	0·4	0·75	Very ill for 48 hours; recovered.
,, 5 ...	0 4	0·85	Died within 36 hours.
,, 6 ...	0 4	1 0	Died in 6½ hours.
,, 7 .	0 4	1 0	,, 9 ,,
,, 8 ...	0·4	1 0	*Ill; recovered.*
,, 9 ...	0·4	1·15	Died after 3 days.
,, 10 ...	0 4	1·25	No symptoms.
,, 11 ...	0 4	1 5	,, ,,

From the above series of experiments we can conclude that 1·15 cubic-centimetres of this serum failed to completely neutralise 0 4 — 0 035 milligramme = 0 0365 milligramme, while 1 25 cubic-centimetres did neutralise this amount at least. Therefore, one cubic centimetre of this serum was able to neutralise 0 29 milligramme.

Series No 5.—The serum used in this series of experiments was got from Captain Mitchell of Nasik. It was imported to India at the same time as the serum used in the experiments detailed in Series No. 4. After being stored in Bombay it was sent to Nasik. The exact date when this happened cannot be ascertained as no record was kept of the event It was received at the laboratory from Nasik in October, 1900. The experiments were completed between Oct. 16th and Nov 13th

TABLE VI.—*Experiments to ascertain the Amount of Venom which One Cubic Centimetre of a Serum of the same age as that used in Series No 4 but which had been kept for most of the time in a comparatively cool place, was capable of neutralising*

Animal.	Amount of dried venom in milligrammes	Amount of serum in cubic centimetres	Result.
Rat 1 ...	0·4	0 25	Died within 3½ hours.
,, 2 ...	0 4	0 25	,, ,, 3 ,,
,, 3 .	0 4	0 25	,, ,, 7 ,,
,, 4 ...	0 4	0 3	,, ,, 4 ,,
,, 5 ...	0 4	0 35	,, ,, 4½ ,,
,, 6 ..	0 4	0·4	,, ,, 4 ,,
,, 7 ...	0 4	0 45	,, ,, 6 ,,
,, 8 ...	0 4	0 5	,, ,, 14 ,,
,, 9 ...	0·4	0·5	,, ,, 4¾ ,,
,, 10 ...	0 4	0 5	Very ill for 24 hours; recovered.
,, 11 ...	0 4	0 55	Died within 40 hours
,, 12 ..	0·4	0 6	,, ,, 50 ,,
,, 13 .	0 4	0·65	,, ,, 54 ,,
,, 14 ...	0 4	0·7	,, ,, 30 ,,
,, 15 ...	0 4	0·7	Ill, recovered
,, 16 ...	0 4	0·75	No symptoms.
,, 17 ...	0 4	0·75	Died within 8 days.
,, 18 ...	0 4	0·8	No symptoms.
,, 19 ...	0 4	1·0	,, ,,
,, 20 ...	0 4	1·25	,, ,,
,, 21 ...	0 4	1·5	,, ,,

From the above series of experiments we can conclude that 0 75 cubic centimetre of this serum did not completely neutralise 0 4 – 0 035 milligramme = 0 365 milligramme, but that 0 8 cubic centimetre was able to do this. It is evident, therefore, that one cubic centimetre of this sample could neutralise 0 46 milligramme.

Series No. 6.—This serum was dated Oct. 17th, 1896. At the time of our experiments it was therefore five years old. It was imported to India in September, 1899. It arrived in Indore the same month and was kept there till November, 1900, when it was sent to Bombay. The experiments were completed between Nov. 27th and Dec. 3rd.

Table VII.—*Experiments to ascertain the Amount of Venom which One Cubic Centimetre of Serum received from Lieutenant-Colonel Gimlette of Indore was able to neutralise.*

Animal.	Amount of dried venom in millegrammes	Amount of serum in cubic centimetres.	Result.
Rat 1 ...	0 4	0 5	Died in 2 hours.
" 2 ...	0 4	0 6	" " "
" 3 ...	0 4	0 7	" 1¼ "
" 4 ...	0 4	0 8	" " "
" 5 ...	0 4	0·9	" 2 "
" 6 ...	0 4	1 0	" 1¾ "
" 7 ...	0·4	1·1	" 20 "
" 8 ...	0 4	1·2	" " "
" 9 ...	0 4	1·3	" 2¼ "
" 10 ...	0 4	1 4	" 7½ "
" 11 ...	0 4	1 5	" 19 "
" 12 ...	0.4	1 6	" 90 "
" 13 ..	0 4	1·7	Died within 67 hours.
" 14 ...	0 4	2 0	Ill for 2 days; recovered.

From the above series of experiments we can conclude that two cubic centimetres were the minimum amount of serum which was able to neutralise 0 4 – 0 035 milligramme = 0 365 milligramme. In other words, one cubic centimetre was able to neutralise 0·18 milligramme.

Series No 7.—This sample of serum bore the date Sept 17th, 1895. Mr. Hankin informed us that he had kept no record of the exact date when he received this sample of serum, but that he had little or no doubt that he received it in the year in which it was prepared. We may, therefore, take it that this serum had been in Agra for over four years.

Table VIII.—*Experiments to ascertain the Amount of Venom which One Cubic Centimetre of Serum received from Mr. Hankin of Agra was able to neutralise.*

Animal.	Amount of dried. venom in milligrammes	Amount of serum in cubic centimetres.	Result.
Rat 1 ...	0 4	0 7	Died in 5 hours.
" 2 ...	0 4	0 8	" " "
" 3 ...	0 4	0·9	" 8 "
" 4 ...	0 4	1·0	Died within 48 hours.
" 5 ...	0 4	1 1	Died in 3¾ hours.
" 6 ...	0 4	1 2	" 9 "
" 7 ...	0 4	1 25	" 19 "
" 8 ...	0 4	1 3	" 9 "
" 9 ...	0 4	1 4	" " "
" 10 ...	0 4	1 4	" 30 "
" 11 ..	0 4	1 5	No symptoms
" 12 .	0·4	1·5	Died within 18 hours
" 13 ..	0 4	1·5	Died in 38 hours.
" 14 ..	0 4	1·6	Died within 22½ hours.
" 15 ...	0 4	1 6	Died in 18 hours.
" 16 ..	0 4	1 7	Died within 18 hours
" 17 ...	0 4	1 7	Died in 16¾ hours.
" 18 ...	0 4	1 8	Died within 18 hours.
" 19 ...	0 4	1 9	" " "
" 20 ...	0 4	2·0	Died in 24 hours.
" 21 ...	0 4	2·0	Died within 17 hours.
" 22 ...	0 4	2 25	" " "
" 23 ...	0 4	2 5	Died in 46 hours.

From the above series of experiments we can conclude that 2 5 cubic centimetres of this serum could not neutralise 0 4 – 0 035 milligramme = 0 365 milligramme. It is evident, therefore, that one cubic centimetre could not neutralise even 0 14 milligramme.

Series No. 8.—This serum was dated Nov. 7th, 1896. It was purchased from Lille by Lieutenant Liston, I.M.S , in September, 1898. It was imported to India the following month. For six months it was kept in Bombay, but during the hot season of 1899 and 1900 it was exposed to the great heat of Berar. It was sent to Bombay in December, 1900. The experiments were completed between Dec. 10th and 14th, 1900.

Table IX.—*Experiments to ascertain the Amount of Venom which One Cubic Centimetre of Serum received from Lieutenant Liston, I.M.S., Ellichpur, Berar, was capable of neutralising.*

Animal.	Amount of venom in milligrammes	Amount of serum in cubic centimetres	Result.
Rat 1 ...	0 4	0·5	Died within 3½ hours.
" 2 ...	0 4	0 8	" " " "
" 3 ...	0 4	1·0	" " " "
" 4 ...	0 4	1·25	Died in 22 hours.
" 5 ...	0 4	1·5	Died within 42 hours.
" 6 ...	0 4	1·75	" " 50 "
" 7 ...	0 4	1 75	" " 48 "
" 8 ...	0 4	2·0	" " 42 "

From the above series of experiments we can say that two cubic centimetres of this serum failed to neutralise 0 4 – 0 35 milligramme = 0·365 milligramme—namely, that one cubic centimetre could not neutralise 0 18 milligramme.

THE FEEDING OF DIPHTHERIA PATIENTS, WITH SPECIAL REFERENCE TO CHILDREN AND SEVERE CASES.

By R. G. KIRTON, M.D. Lond.,
SENIOR ASSISTANT MEDICAL OFFICER, BROOK FEVER HOSPITAL, SHOOTERS HILL.

In the treatment of diphtheria the feeding is of great importance, while at the same time it is attended with the greatest difficulty, owing to the inability of many patients to take or to retain nourishment given by the mouth. So much depends upon the nurse that it is essential to obtain the best nursing available. Feeding may be carried out by (1) the mouth; (2) the nasal tube; (3) the rectum; and (4) subcutaneous injections. In all cases, where practicable, feeding should be performed by the mouth. Certain conditions, however, render mouth feeding impossible or inadvisable. Chief amongst these are the following: (1) inability to swallow owing to pain or faucial swelling; (2) some cases of regurgitation, which will be referred to later; (3) entrance of food into the larynx in spite of slow and careful feeding indicated by the patient coughing when fed; (4) in certain cases, owing to struggling, the time taken and the exhaustion consequent on mouth feeding; and (5) continued vomiting—(*a*) vomiting may be present almost from the onset of diphtheria; (*b*) early vomiting, commencing about the middle or end of the second week; and (*c*) late vomiting, which occurs after some weeks of the disease. Generally speaking, vomiting which begins early is of graver import than that which starts late in the disease. It is well to remember that cases occur in which patients can be fed with a nasal tube without vomiting, although they vomit when fed by the mouth. In some this is probably due to distaste for their nourishment.

I.—Mouth Feeding.

In the early stages of diphtheria milk should be the chief article of food. It should be given either mixed with some diluent, as barley water, or in such form as Benger's or Mellin's food. It may be given hot or cold, sweetened or flavoured with tea, coffee, or cocoa As a rule children prefer milk sweetened, and this is probably a cause of some taking Mellin's food readily but objecting to diluted milk. Adults on the other hand, prefer milk flavoured. Children (and the bulk of the cases consist of children) on admission to hospital are usually fed every three or four hours. They will take from four to five ounces of milk each feed. This is diluted with a certain amount of barley water. The proportion of barley water added varies; usually it is in the ratio of one part to three parts of milk. Severe cases and infants up to about two years are fed every two hours and often will not take more than two ounces at a time. Children, even when they have membrane on their throats, will take their nourishment fairly well, but when the membrane has peeled off they sometimes have difficulty and pain in swallowing, and need a lot of persuasion even to take a small quantity of nourishment by the mouth. At first very few children are willing to drink out of a feeder. They much prefer a small medicine-glass or a teaspoon. All nourishment should be measured, and this specially so in severe cases. In cases which progress favourably, and where there are no special indications against it, the milk may in a short time be supplemented by other forms of nourishment, and the patient may soon return to an ordinary diet which should be both light and nutritious. Severe cases should be kept on a slop or modified slop diet for some little time longer than mild cases.

Regurgitation, &c.—Children with regurgitation must be fed very slowly. On no account should they be allowed to feed themselves. When regurgitation persists even with slow feeding all liquids should be thickened. Thus the milk may be given in the form of thick Benger's food, milk arrowroot, or a certain amount may be given as milk jelly, made by the addition of isinglass to the milk. Milk jelly can be made equally well with peptonised milk and is by no means unpalatable. Unfortunately, children often do not care for milk jelly. It is generally more liked in summer than in winter. Eggs may be tried as a suitable article of diet, provided they are assimilated, and sometimes patients with regurgitation are able to swallow them, if lightly boiled and made into a paste with bread crumbs. There are some patients who can take solids comfortably by the mouth, but are quite unable to swallow liquids. Others, owing to the length of time taken in feeding, are unable to take sufficient nourishment by the mouth In these cases mouth feeding should be supplemented by nasal feeding, or, if necessary, by rectal feeding. In others, again, nothing can be taken by the mouth. These remarks on cases with regurgitation apply equally well to patients who cough on feeding But here I think it is advisable that feeding by the mouth be left off earlier than in cases where regurgitation is the difficulty.

Vomiting.—Some patients suffering from diphtheria are inclined to retch and to vomit from the first. Sometimes this may be due to previous injudicious feeding or causes distinct from the diphtheria. It is best not to press these cases with nourishment at first. They should only have small quantities of peptonised milk, say, one ounce or less, hourly. Should the vomiting persist, feeding by the mouth should be stopped and other modes of feeding substituted. If the vomiting cease on the milk being peptonised the quantity may be cautiously increased, finally the peptonisation omitted, and the patient slowly be allowed to return to an ordinary milk diet Sometimes patients will take and retain water, raw-meat juice, or white of egg and water, although they reject peptonised milk. Raw meat juice or white of egg may be added to the peptonised milk if it is retained. Bread jelly, made as described by Dr. Cheadle, may be also tried. Early and late vomiting should be treated on the same lines as above. Generally, however, feeding by the mouth has to be entirely omitted for a time and rectal alimentation substituted. Vomiting is sometimes preceded by retching—a valuable indication to limit the amount and to alter the kind of nourishment, if necessary to go back to a strict milk diet and to have the milk peptonised. Occasionally hot applications to the epigastrium are of use in controlling vomiting to a certain extent.

Severe cases.—In cases of severe diphtheria, in which vomiting ultimately supervenes, the period previously to this may be quite free from vomiting. In such cases the milk should be supplemented by beef-tea, raw meat juice, eggs beaten up and mixed with a little brandy and milk—a good mixture being one egg, a little powdered sugar, half an ounce of brandy, and milk to two ounces. This may be given in small portions over 12 or 24 hours. The nourishment should be given in small quantities at frequent intervals. Great care must be taken to satisfy oneself that the nourishment taken is absorbed. These are cases in which one anticipates early or late vomiting, when the feeding will become more and more difficult. Therefore, if possible, they should be fed up with due care previously to the onset of vomiting.

Stimulants.—The administration, when indicated, of alcoholic stimulants is often beset with difficulty owing to the frequency with which vomiting follows their use. Brandy is the most generally suitable form, and in some cases can be given in definite amount daily without being rejected. Many children, however, apart from vomiting, show a great distaste for it In many cases it is best given as symptoms arise indicating its need. Since it is often necessary to give it quickly, I think it wise to allow an experienced nurse to give it on her own initiative and to inform the medical attendant of this later Champagne can be taken in some cases where brandy is rejected.

II.—NASAL FEEDING.

The following conditions render nasal feeding adviseable: (1) inability to swallow from regurgitation, paralysis of muscles of deglutition, &c.; (2) [illegible] due to entrance of food into the [illegible] in tracheotomy cases; (3) cases [illegible] the mouth, but do not when fed through the nose; (4) cases exhausted by mouth feeding, but not when nasal-fed (amongst these must be numbered cases in which mouth feeding takes a very long time); and (5) moral effect. These suggestions apply to children who refuse food though well able to swallow. One nasal feed is often sufficient.

As a rule nasal feeding can be performed with a soft rubber tube, but occasionally a stiff tube is necessary. Generally the patient should be fed every four hours, but this must to a certain extent depend on the individual case. Milk, if necessary peptonised or as Benger's food, should be the chief ingredient Raw meat juice, eggs, cream, brandy (if ordered), or medicines may be added to the diet. The quantity in each meal must vary with the age, size, &c., of the patient About four ounces is often as much as a child of from three to five years old will be able to retain and to absorb Even this may have to be reduced. All foods should be strained, measured, and given warm. If vomiting occur it may be due to the amount or contents of the meal or to the frequency of administration. All these details can be variously modified. The amount may be diminished, the frequency lessened, or some constituent which is supposed to be the cause of vomiting altered or omitted. If, however, the vomiting persist rectal alimentation must be tried in lieu of nasal feeding It is worth noting that after the first few nasal feeds feeding by this method as a rule becomes remarkably easy owing to the effect of habit and in some cases to actual loss of sensation.

III.—RECTAL ALIMENTATION.

This should be resorted to when feeding by the mouth or nose fails or is insufficient. The following are the chief conditions where it is required: (1) vomiting; (2) great difficulty in passing the nasal tube from various causes; (3) when nasal feeding acts harmfully on the patient, owing to fright, struggling, or other cause; and (4) epistaxis caused by passage of the nasal tube

Rectal feeding should be performed by means of a funnel and soft rubber tube, passed as high up the rectum as possible, and the feed allowed to flow in by force of gravity. A ball syringe should not be used, for it is impossible to gauge accurately the amount of pressure used; experience also shows that nutrients given this way are not so well retained. The feeds should be given warm about every four hours They should be measured and strained. The amount of the feed should depend on the age, &c., of the patient. In young children it varies from two to four ounces and has to depend on the amount retained and absorbed. The feeds should have as their basis peptonised milk, and often this is their only constituent. Raw meat juice, white of eggs, and occasionally yolks of eggs are added. In some cases brandy is added and tolerated for a long continued period. Often, however, probably owing to its irritating the

TABLE SHOWING THE AMOUNT AND NATURE OF FOOD, &C., RETAINED (APPROXIMATELY) IN CASE 1.

Date.	By mouth.	Nasal feeding.	Rectal feeding.	Injections of horse serum.	Remarks.
Feb. 19th.	Milk,* 8 oz.; brandy, 2 drachms	—	—	—	Antitoxin, 18,000 units.
,, 20th.	Milk,* 31 oz.; brandy, 11 drachms; eggs, 2.	—	—	—	Antitoxin, 12,000 units,
,, 21st.	Milk,* 33 oz; brandy, 13 drachms; 1 egg.	—	—	—	Antitoxin, 12,000 units.
,, 22nd.	Milk,* 33 oz.; brandy, 14 drachms; eggs, 2; raw meat juice,† 4 drachms.	—	—	—	—
,, 23rd.	Milk,* 33 oz.; brandy, 8 drachms; eggs, 2; raw meat juice, 14 drachms.	—	—	—	—
,, 24th.	Milk,* 19 oz.; brandy, 8 drachms; 1 egg; raw meat juice (amount not noted); cocoa, 4 oz.	—	—	—	—
,, 25th.	Milk,* 32 oz.; brandy, 15 drachms; half an egg; raw meat juice, 6 drachms.	—	—	—	Vomited three times.
,, 26th.	Milk,* 35 oz.; brandy, 15 drachms; eggs, 1½; raw meat juice, 19 drachms.	—	—	—	No vomiting.
,, 27th.	Milk,* 28 oz.; brandy, 12 drachms; 1 egg; coffee, 1 oz	—	—	—	Vomited twice.
,, 28th.	Milk,* 12 oz.; brandy, 10 drachms; coffee, 4 oz.	—	Peptonised milk, 8 oz.; brandy, 5 drachms.	—	Vomited twice. Mouth feeding omitted. Ordered rectal feeding: 4 oz. peptonised milk and ½ oz. brandy four hourly.
March 1st.	*Nil.*	—	Peptonised milk, 24 oz.; brandy, 18 drachms; water, 8 oz.	—	Vomited twice; ‡ ordered 4-oz. water feeds in addition.
,, 2nd.	*Nil.*	—	Peptonised milk, 24 oz; brandy, 3 oz; water, 1 pint.	—	Vomited twice.
,, 3rd.		—	Peptonised milk, 20 oz.; brandy, 2½ oz; water, 1 pint.	—	Vomited five times; returned one feed.
,, 4th.		—	Peptonised milk, 24 oz.; brandy, 3 oz.; water, 1 pint.	—	Vomited six times.
,, 5th.		—	Peptonised milk, 20 oz.; brandy, 2½ oz; water, 1 pint	20 c.c.	No vomiting; returned one feed.
,, 6th.		—	Peptonised milk, 24 oz; brandy, 3 oz.; water, 1 pint.	20 c.c.	No vomiting.
,, 7th.		—	Peptonised milk, 24 oz.; brandy, 3 oz.; water, 1 pint.	20 c.c.	No vomiting.
,, 8th.		—	Peptonised milk, 24 oz.; brandy, 3 oz.; water, 1 pint.	20 c.c.	No vomiting.
,, 9th.		—	Peptonised milk, 24 oz; brandy, 3 oz; water, 1 pint.	—	No vomiting.
,, 10th.		—	Peptonised milk, 24 oz.; brandy, 3 oz.; water, 1 pint.	—	Vomited four times.
,, 11th.		—	Peptonised milk, 24 oz.; brandy, 3 oz.; water, 1 pint.	—	Vomited four times; brandy decreased to 2 drachms each feed.
,, 12th.	During this period, owing partly to great craving for food, the patient was tried by mouth with very small amounts of nourishment or water but with no effect. Practically everything was vomited.	—	Peptonised milk, 24 oz.; brandy, 1½ oz.; water, 24 oz	20 c.c.	Vomited six times.
,, 13th.		—	Peptonised milk, 24 oz.; brandy, 1½ oz; water, 1 pint.	—	Vomited four times.
,, 14th.		—	Peptonised milk, 24 oz.; brandy, 1½ oz.; water, 1 pint.	20 c.c.	Vomited twice.
,, 15th.		—	Peptonised milk, 20 oz.; brandy, 1¼ oz.; water, 1 pint.	—	Vomited five times; returned one feed.
,, 16th.		—	Peptonised milk, 16 oz.; brandy, 1 oz.; water, 16 oz.	20 c.c.	Vomited several times; returned two feeds.
,, 17th.		—	Peptonised milk, 20 oz.; brandy, 1¼ oz.; water, 1 pint.	20 c.c.	Vomited once; returned one feed.
,, 18th.		—	Peptonised milk, 20 oz.; brandy, 1¼ oz.; water, 1 pint	20 c.c.	Vomited twice; returned one feed.
,, 19th.		—	Peptonised milk, 24 oz.; brandy, 1½ oz.; water, 16 oz.	20 c.c.	Vomited three times.
,, 20th.		—	Peptonised milk, 24 oz.; brandy, 1½ oz.; water, 16 oz.	20 c.c.	Vomited three times.
,, 21st.		—	Peptonised milk, 24 oz.; brandy, 1½ oz.; water, 16 oz.	20 c.c.	Vomited twice.
,, 22nd.		—	Peptonised milk, 24 oz.; brandy, 1½ oz.; water, 16 oz.	—	—
,, 23rd.		—	Peptonised milk, 24 oz; brandy, 1½ oz.; water, 16 oz	20 c.c.	—
,, 24th.		—	Peptonised milk, 24 oz.; brandy, 1½ oz.; water, 16 oz	15 c.c.	—
,, 25th.		—	Peptonised milk, 24 oz.; brandy, 1½ oz.; water, 16 oz.	20 c.c.	—
,, 26th.		—	Peptonised milk, 24 oz.; brandy, 1½ oz.; water, 16 oz.	—	—
,, 27th.		—	Peptonised milk, 24 oz.; brandy, 2 oz.; water, 16 oz.	20 c.c.	—

TABLE SHOWING THE AMOUNT AND NATURE OF FOOD, &c., RETAINED (APPROXIMATELY) IN CASE I.—(*Contin*

Date.	By mouth.	Nasal feeding.	Rectal feeding.	Injections of horse serum.	Remarks.
March 28th.	*Peptonised milk, 6½ oz.*	—	*Peptonised milk, 24 oz.*; brandy, 1½ oz.; water 16 oz.	—	Vomited three times. The milk by mouth was given mostly after the vomiting.
" 29th.	Peptonised milk, 10 oz.; Benger's food, 2 oz.	—	Peptonised milk, 24 oz.; brandy, 1½ oz; water, 16 oz.	—	No further vomiting. Coughed on mouth feeding.
" 30th.	Peptonised milk, 6 oz.; Benger's food, 2 oz.; milk jelly, 1½ oz.	—	Peptonised milk, 24 oz.; brandy, 1½ oz.; water, 20 oz.	—	Regurgitation.
" 31st.	Peptonised milk, 4 oz.; milk jelly, 2¼ oz.	—	Peptonised milk, 24 oz.; brandy, 1½ oz.; water, 16 oz.	—	—
April 1st.	Peptonised milk, 1½ oz.; milk jelly, 2 oz; 1 egg.	—	Peptonised milk, 24 oz.; brandy, 1½ oz.; water, 16 oz.	—	—
" 2nd.	Peptonised milk, 2 oz.; milk jelly, 1½ oz.; 1 egg.	—	Peptonised milk, 24 oz.; brandy, 1½ oz., water, 16 oz.	—	—
" 3rd.	Peptonised milk, 3 oz.; half an egg.	—	Peptonised milk, 24 oz.; brandy, 1½ oz., water, 16 oz.	—	—
" 4th.	Peptonised milk, 3 oz.	—	Peptonised milk, 24 oz.; brandy, 1½ oz; water, 16 oz.	—	Unable to swallow, April 5th.
" 5th.	*Nil.*	Peptonised milk, 3 oz.	Peptonised milk, 24 oz.; brandy, 1½ oz., water, 16 oz.	—	Ordered nasal feeds; 3 oz. of peptonised milk six-hourly.
" 6th.		" " 12 oz.	Peptonised milk, 20 oz.; brandy, 1½ oz.; water, 16 oz.	—	Returned one feed (rectal).
" 7th.		" " 13 oz.	Peptonised milk, 24 oz.; brandy, 1½ oz., water, 16 oz.	—	Nasal feeds increased to 4 oz. of peptonised milk.
" 8th.		" " 16 oz.	Peptonised milk, 24 oz.; brandy, 1½ oz., water, 16 oz.	—	—
" 9th.		" " 16 oz.	Peptonised milk, 24 oz.; brandy, 1½ oz.; water, 16 oz.	—	¾ oz. of cream added to each nasal feed.
" 10th.		Peptonised milk, 16 oz.; cream, 3 oz.	Peptonised milk, 24 oz.; brandy, 1½ oz; water, 16 oz.	—	—
" 11th.		Peptonised milk, 16 oz.; cream, 3 oz.	Peptonised milk, 24 oz., brandy, 1½ oz., water, 14 oz.	—	—
" 12th.		Peptonised milk, 16 oz.; cream, 3 oz.	Peptonised milk, 24 oz.; brandy, 1½ oz., water, 14 oz.	—	—
" 13th.		Peptonised milk, 16 oz.; cream, 3 oz.	Peptonised milk, 24 oz.; brandy, 1½ oz., water, 14 oz.	—	Water bed ordered; patient very thin.
" 14th.		Peptonised milk, 16 oz.; cream, 3 oz.	Peptonised milk, 24 oz.; brandy, 1½ oz.; water, 16 oz.	—	—
" 15th.		Peptonised milk, 16 oz.; cream, 3 oz.	Peptonised milk, 24 oz; brandy, 1½ oz.; water, 16 oz.	—	—
" 16th.		Peptonised milk, 16 oz.; cream, 3 oz.	Peptonised milk, 24 oz.; brandy, 1½ oz, water, 16 oz.	—	—
" 17th.		Peptonised milk, 16 oz.; cream, 3 oz.	Peptonised milk, 24 oz.; brandy, 1½ oz.; water, 16 oz.	—	—
" 18th.		Peptonised milk, 16 oz; cream, 3 oz.	Peptonised milk, 24 oz.; brandy, 1½ oz., water, 16 oz.	—	—
" 19th		Peptonised milk, 16 oz.; cream, 3 oz.	Peptonised milk, 24 oz; brandy, 1½ oz., water, 16 oz.	—	—
" 20th.		Peptonised milk, 16 oz.; cream, 3 oz.; brandy, 1 oz.	Peptonised milk, 16 oz.; water, 12 oz.	—	Returned two rectal feeds; brandy omitted from rectal feeds; 3 drachms of brandy ordered to each nasal feed.
" 21st.		Peptonised milk, 16 oz.; cream, 3 oz.; brandy, 1½ oz.	Peptonised milk, 24 oz.; water, 12 oz.	—	—
" 22nd.		Peptonised milk, 12 + oz.; cream, 2¼ oz., brandy, 1½ oz.	Peptonised milk, 20 oz., water, 14 oz.	—	Vomited part of one nasal feed; returned one rectal feed.
" 23rd.		Peptonised milk, 16 oz.; cream, 3 oz.; brandy, 1½ oz.	Peptonised milk, 20 oz.; water, 14 oz.	—	Returned one rectal feed.
" 24th.		Peptonised milk, 16 oz.; cream, 3 oz.; brandy. 1½ oz.	Peptonised milk, 24 oz.; water, 14 oz.	—	Returned one nasal feed at once; had another later.
" 25th.		Peptonised milk, 16 oz.; cream, 3 oz; brandy, 1½ oz.	Peptonised milk, 24 oz.; water, 14 oz.	—	—
" 26th.		Peptonised milk, 16 oz.; cream, 3 oz.; brandy, 1½ oz.	Peptonised milk, 24 oz.; water, 14 oz.	—	—
" 27th.		Peptonised milk, 12 oz.; cream, 2¼ oz.; brandy, 1½ oz.	Peptonised milk, 20 oz., water, 14 oz.; brandy, 3 drachms	—	Returned one rectal feed; vomited twice after nasal feeds, once very slightly.
" 28th.		Peptonised milk, 16 oz.; cream, 3 oz; brandy, 1½ oz.	Peptonised milk, 24 oz.; water, 12 oz	—	Retched after the nasal feed; no vomiting.
" 29th		Peptonised milk, 16 oz.; cream, 3 oz.; brandy, 1½ oz.	Peptonised milk, 24 oz., water, 12 oz.	—	—
" 30th.	Five fingers of toast.	Peptonised milk, 16 oz.; cream, ¾ oz.; brandy, 1½ oz.	Peptonised milk, 24 oz., water, 12 oz.	—	—
May 1st.	Two fingers of toast.	Peptonised milk, 12+oz.; cream, 2¼ oz.; brandy, 1½ oz.	Peptonised milk, 20 oz.; water, 12 oz;	—	Two feeds omitted by rectum; part of one nasal feed vomited.
" 2nd.	Toast, 1 egg; mince and potatoes; Benger's food, 1 oz.	Peptonised milk, 12–oz.; cream, 3–oz.; brandy, 1½ oz.	Peptonised milk, 12 oz., water, 10 oz.	—	Rectal feeding omitted; one nasal feed omitted; vomited part of one nasal feed; vomited a little of dinner.

TABLE SHOWING THE AMOUNT AND NATURE OF FOOD, &c., RETAINED (APPROXIMATELY) IN CASE 1.—(*Continued*).

Date.	By mouth.	Nasal feeding.	Rectal feeding.	Injections of horse serum.	Remarks.
May 3rd.	Toast, bread and butter, 2 eggs, milk jelly, mince and potatoes.	Peptonised milk, 12 oz.; cream, 3 oz; brandy, 1½ oz.	—	—	Vomited part of one nasal feed.
„ 4th.	Bread and butter, fish and potatoes, 2 eggs.	Peptonised milk, 12 oz.; cream, ½ oz.; brandy, 1½ oz.	—	—	—
„ 5th.	Bread and-butter, fish and potatoes, 2 eggs.	Peptonised milk, 12 oz.; cream, 3 oz.; brandy, 1½ oz.	—	—	—
„ 6th.	Bread and butter, fish and potatoes, 2 eggs, milk pudding.	Peptonised milk, 12 oz.; cream, 3 oz; brandy, 1½ oz.	—	—	—
„ 7th.	Bread-and butter, fish and potatoes, 2 eggs, milk pudding.	Peptonised milk, 8 oz.; cream, 2 oz; brandy, 1 oz.	—	—	Vomited whilst one feed was given.
„ 8th.	Bread and-butter, fish and potatoes, 2 eggs, milk pudding.	Peptonised milk, 12 oz; cream, 3 oz.; brandy, 1½ oz.	—	—	—
„ 9th.	Bread-and butter, chicken and potatoes, 2 eggs, milk pudding.	Peptonised milk, 12 oz.: cream, 3 oz.	—	—	Brandy omitted from nasal feeds.
„ 10th.	Bread-and-butter, chicken and potatoes, 2 eggs, milk pudding.	Peptonised milk, 12 oz.; cream, 3 oz.	—	—	Vomited once.
„ 11th	Bread and-butter, chicken, milk pudding, 2 eggs, 4 milk biscuits.	Peptonised milk, 12 oz.; cream, 3 oz.	—	—	—
„ 12th.	Bread and-butter, chicken, milk pudding, 1 egg, 4 milk biscuits.	Peptonised milk, 12 oz.; cream, 3 oz.	—	—	
„ 13th.	Bread-and-butter, chicken, milk pudding, 2 eggs, 4 milk biscuits.	Peptonised milk, 12 oz.; cream, 3 oz.	—	—	Vomited part of dinner · great difficulty in swallowing fluids till this date.
„ 14th.	Diet the same and in addition 3 oz. of peptonised milk.	Peptonised milk, 12 oz.; cream, 3 oz.	—	—	—
„ 15th.	Diet the same and in addition 4 oz. of peptonised milk.	Peptonised milk, 12 oz.; cream, 3 oz.	—	—	—
„ 16th.	Diet the same and in addition 4 raw meat sandwiches	Peptonised milk, 12 oz.; cream, 3 oz.	—	—	—
„ 17th.	Milk, 1½ pints; cream, 1 oz.; chicken, biscuits; bread-and-butter; eggs; 6 raw meat sandwiches.	Peptonised milk, 12 oz; cream, 3 oz.	—	—	Vomited once.
„ 18th.	Milk 1½ pints; cream, 1 oz.; chicken; biscuits, bread-and-butter; 2 eggs; 6 raw meat sandwiches.	Peptonised milk, 12 oz.; cream, 3 oz.	—	—	Nasal feeding ordered to be omitted. The patient after the 18th soon got back to an ordinary but generous diet.

* The milk was diluted by addition of barley-water.
† Made from raw steak; 1 lb. allowed daily.
‡ One water feed omitted daily to allow bowel to be washed out.
§ Same amount of cream and brandy given in the 24 hours.

rectal mucous membrane, it is apt to set up diarrhœa. Sometimes it may be ordered to be given apart from the nutrient feeds and diluted with water when symptoms show themselves suggesting its use. The milk feeds should be preceded by water feeds of three or four ounces of warm water, given in the same manner as the milk feeds, about an hour before these feeds are given. Sometimes in addition to the milk-and-water feeds small nutrient suppositories may be given provided they are retained and absorbed. The bowel should be washed out every 24 hours and it is possible from this to get some idea as to whether the food given has been absorbed. I do not think large rectal feeds are advisable as they are apt to set up diarrhœa. Diarrhœa is a troublesome and serious complication in these cases, for rectal alimentation has to be depended on to support life over far longer periods than is usually supposed possible. Thus it is not uncommon for cases to be fed by the rectum alone for three weeks, and cases occur where rectal feeding has to be continued over four or five weeks and even seven weeks. If the feeds are not retained or only retained in part their amount should be diminished, or they should be given less frequently, or some part of the feed should be omitted—e g., brandy. Sometimes washing out the bowel and giving it a rest is useful. The water feeds may be badly retained; they also may have to be diminished in quantity or given less frequently. If these means fail, a starch or a starch-and-opium enema containing a few drops of tincture of opium will often be found useful. During the period of abstinence from food by the stomach patients have a great craving for food, often of the most varied kind. They are tried by mouth with water, raw meat-juice, peptonised milk in drachm doses. Occasionally, owing greatly to their craving, they are tried with a morsel of thin bread-and-butter, &c., but, as a rule, it is rejected by the stomach.

IV.—SUBCUTANEOUS INJECTIONS.

In addition to the above forms of administering food the injection of sterile horse serum into the subcutaneous tissues is to be recommended.[1] Dr. F. E. Laslett has also advocated saline infusions.[2] Horse serum should be used when the amount of nourishment taken by stomach or rectum, or both, appear to be insufficient to support life. Sometimes it is used as the only means of feeding patients owing to continued vomiting and diarrhœa. It should be injected into the loose subcutaneous tissues of the trunk. If given over a prolonged period, I think from 20 to 40 cubic centimetres are often as much as it is advisable to inject daily. As a rule, patients submit to its injection well and I have occasionally noticed that children have been injected without any untoward effect who have become cyanosed on attempting to nasal-feed. As far as I know the only indication against the use of these injections is hæmorrhage into the subcutaneous tissues adjoining the site of injection. I have, however, seen no dangerous effects from its use, either from these hæmorrhages or other causes. Transient rashes have occasionally been observed after its use. It is impossible to speak dogmatically as to its value, for in all cases, as far as possible, where it is given, nourishment is also introduced by other channels. However, if it is absorbed the patient has had so much added nourishment, and this is of great importance where one's resources are so taxed in feeding. Some nurses have thought that patients are more restful after the injections, and that in cases which are constantly retching and vomiting these symptoms have been less marked. My own impression is that the injections of horse serum have been beneficial.

---

[1] See Action of Normal Serum upon the Animal Economy, by A. Salter, M.D., &c., Guy's Hospital Reports, vol. liii, 1896.
[2] THE LANCET, Oct. 20th, 1900, p 1131.

CONCLUDING REMARKS.

Patients who have been fed by the rectum for some weeks become extremely emaciated and not infrequently develop petechial hæmorrhages, generally in the trunk, and they may be profuse. So far I have made little or no reference to drugs. My experience of most if not all as regards their action in the vomiting of diphtheria has been uniformly disappointing. I have spoken separately of the various modes of feeding. In practice, however, they are frequently combined. I am much indebted to the nurses, who have supplied me with careful notes, and whose advice in many practical details of the different methods of feeding has been of much value. I append notes of a few cases, one *in extenso*, specially with reference to their feeding.

CASE 1.—The patient, aged six years, was admitted to Brook Hospital on Feb. 19th, 1900, and was discharged on July 13th, 1900 The patient was admitted on the third day of the disease, with very severe faucial diphtheria. The heart was affected early. Epistaxis occurred on the fifth day. Albumin was seen from the seventh to the [illegible] commenced on the seventh [illegible] nasal voice, regurgitation, [illegible] paralysis, paralysis of deglu- [illegible] The accompanying table shows the approximate amount and nature of food, &c., retained.

CASE 2.—The patient, aged six years, was admitted to Brook Hospital on Sept. 14th, 1899, and was discharged on Feb. 8th, 1900. The patient was suffering from severe faucial diphtheria and was admitted on the third day of the disease. There were albuminuria, palatal paralysis, and diaphragmatic paralysis. Vomiting started on the fifteenth day and ceased about the forty-third day. 10 000 units of antitoxin were given on the third day of the disease, and 12 000 units of antitoxin were given on the fourth day of the disease. On the twelfth day, owing to retching, peptonised milk only was ordered by the mouth. On the sixteenth day rectal feeding alone was ordered. The feeds, consisting of four ounces of peptonised milk and half an ounce of brandy, were ordered to be given every four hours. In addition, water feeds of four ounces were ordered one hour before the milk feeds. On the seventeenth day milk enules (containing peptone from five drachms milk) were ordered four-hourly. On the twentieth day, owing to the feeds being badly retained, the brandy was omitted from each feed and the quantity of milk was reduced to three ounces. On the twenty-second day the milk feeds were further reduced to two and a half ounces each feed. At the same time only three water feeds were given in the 24 hours; but the milk enules were continued every four hours. These rectal feeds were continued till the thirty sixth day. On the twenty-ninth and thirtieth days a starch and opium enema was required. Twenty cubic centimetres of horse serum were injected on the twentieth, twenty-first, twenty-second, twenty-third, twenty-fourth, twenty-fifth, twenty-sixth, twenty-seventh, and twenty-eighth days. The last two gave rise to subcutaneous hæmorrhage. From the thirty-first to the thirty-sixth day the patient took a small but appreciable amount of food by the mouth. From the thirty-sixth to the fiftieth day the patient was nasal-fed, but each day had in addition by the mouth one or two eggs and some bread crumbs. After the fiftieth day the patient gradually got back to a normal diet.

CASE 3.—This patient, aged five years, was admitted to Brook Hospital on Nov. 8th, 1900, suffering from severe faucial diphtheria, it being the fifth day of the disease. Albuminuria was present from the time of admission to the thirty-third day. Vomiting commenced on the eighth day and did not cease entirely till the sixtieth day of the disease. Palatal paralysis was first noticed on the seventeenth day. 12,000 units of antitoxin were given on the fifth day and 12,000 units of antitoxin were given on the sixth day. Rectal feeds were ordered first on the twelfth day, consisting of three ounces of peptonised milk and half an ounce of brandy, given four-hourly. On the thirteenth day the milk was increased to four ounces each feed. On the nineteenth day the brandy was diminished to two ounces divided over the rectal feeds given in 24 hours. Three-ounce water feeds were also ordered one hour before the milk-and-brandy feeds. *The rectal feeds were omitted on the fifty-seventh* day. Nasal feeds, consisting of one ounce of peptonised milk, one drachm of raw meat juice, and one drachm of brandy, were first ordered four hourly on the fifty-fifth day. On the fifty-sixth day the milk was increased to two ounces each feed. On the fifty-seventh day the nasal feeds were increased to three ounces of peptonised milk, one drachm of meat juice, and three drachms of brandy. On the sixty-fourth day the patient began to feed by the mouth. On the seventy-second day the nasal feeds were increased to five ounces of peptonised milk; the brandy was omitted. These were given three times a day. On the eighty-first day they were omitted, and from that date the child gradually got back to an ordinary diet. From the twelfth to the fifty-fifth day the patient was fed almost entirely by the rectum. On the fifteenth, twenty-fourth, and thirty-ninth day 20 cubic centimetres of horse serum were injected as she was then retaining her feeds badly. The child had a great craving for food and was occasionally tried with it in minute quantities, but mostly it was rejected by vomiting, until the fifty-sixth day. On the thirty-sixth day one nasal feed was tried, but this was vomited, and for some days the vomiting was increased.

CASE 4.—The patient, aged five years, was admitted to Brook Hospital on Jan. 14th, 1899, suffering from faucial diphtheria and was discharged on June 1st, 1899. On June 16th there was vomiting. Peptonised milk was ordered and brandy one ounce in the 24 hours. On the 17th the vomiting stopped The patient then did well and was on a fish diet on Jan. 22nd and on child's diet on Feb. 3rd. On March 1st the child collapsed in the morning and vomiting occurred. Half an ounce of brandy was given by the rectum. Mouth feeding was omitted and the child was ordered four-hourly rectal feeds, each feed consisting of four ounces of peptonised milk and half an ounce of brandy. Water feeds of from three to four ounces were given one hour before the milk feeds. On March 2nd the yelk of half an egg was added to each milk feed. On the 25th there were punctiform hæmorrhages in the body. On April 3rd brandy only was given in alternate feeds. On the 4th the patient commenced to take food by the mouth for the first time since March 1st. On the 10th two rectal feeds were omitted On the 12th rectal feeds were omitted. In this case the child was fed by the rectum alone from March 1st to April 4th, a period of five weeks

Shooters Hill, Kent.

SCARLATINAL INFECTION: AN INQUIRY AND AN ILLUSTRATION.

BY J. B. PIKE, M.R.C.S. ENG., L.R.C.P. EDIN.

THE pathogenic germ of scarlet fever appears to require moisture for its development, and, this being the case, it seems somewhat strange that dry exfoliated epidermis should have received so much credit as the potential in scarlatinal infection. Latterly more attention has been paid to nasal discharge, and I believe pus from the middle ear is also suspected, This being granted the question arises, How long can these discharges convey specific scarlatinal infection? Can scarlet fever microbes lurk insidiously in hiding? Certainly the middle ear and mastoid cells form excellent quarters for the secret dwelling, if the germs can lie there quietly, without resentment of the tissues. If they can do so for a long or indefinite time we must enlarge our view of the infective period of scarlet fever. Isolation can hardly be indefinite, but if we recognise an ear discharge occurring even a year or more after scarlet fever as possibly or probably infectious something may be done to prevent the spread of the disease.

Another interesting question which is suggested by the following illustrative case is this, Is a secondary auto-infection possible from scarlatinal poison lurking in the cavities of the temporal bone? I cannot pretend by one case to answer these questions, but I think the following notes illustrate the inquiry, and subsequent observation may possibly throw more light upon the matter.

A girl, aged 14 years, was isolated, together with one of her sisters, for scarlet fever on Jan. 5th, 1898. She was about again on Feb. 24th and appeared to regain her normal health. On Sept. 27th, 1899, she was attacked by sore-throat followed by earache. I saw her first with regard to this illness on Oct. 14th, 1899, when she was suffering a good deal from the ear, a discharge having been noticed from the meatus for about a week. On Oct. 17th the ear was very troublesome and there was some puffiness over the mastoid. She was also showing symptoms of acute nephritis. It was arranged to make Wilde's incision the next day. On the 18th, however, an older sister developed scarlet fever, and this occurred without our being able to trace any outside infection. My patient was consequently moved to a private ward at the Loughborough Hospital and on the same day an incision was made. A superficial necrosis of the mastoid was found which was removed together with a part of the posterior wall of the meatus. The operation was made as short as possible as prolonged anæsthesia was undesirable with the acute kidney condition. In its subsequent progress the case gave rise to much anxiety. For some time there was high temperature, rising at night or early morning to from 103° to 105° F., and it was difficult to determine how much this was due to mastoid trouble and how much to nephritis. On this point I had the advantage of consultations with Mr. Bond of Leicester and Dr. Howarth of Derby, and the decision was not to interfere further with the mastoid unless there was an extension of local symptoms. Ultimately all symptoms of active mischief subsided, the incision healing and the urine becoming free from casts and albumin The patient went home convalescent on Dec. 6th, 1899.

The points illustrative of the previous inquiry are, first, the infection of the older sister, and secondly, the sore-throat followed by nephritis and associated with mastoid and middle-ear trouble, which had been for some time latent. Apart from these points the case is interesting as an example of nephritis associated with mastoid necrosis and simulating septicæmia.

Loughborough.

PURE UREA IN THE TREATMENT OF TUBERCULOSIS.

By HENRY HARPER, M.D. R U.I.

IN THE LANCET of March 9th, 1901, I was permitted to place on record my experience of pure urea in the treatment of tuberculosis. The subject is so vast, the problems in physiology are so great and many-sided, the whole matter is so closely connected with organo-therapy, and the possibilities are so far-reaching, that I once more venture to record my further experience of urea. I selected urea, a substance of known chemical composition, from amongst its congeners, the "great end-products of nitrogenous metabolism," as an antitoxin for the tubercle bacillus. Hitherto urea has been looked upon as a waste product of the body of no further use in the economy—in fact, just as coal-tar used to be previously to the discovery of the aniline dyes it was found to contain.

My opinion is that urea is a constructor or builder up when administered in tuberculosis. This view is forced upon me by the frequent expressions of patients stating that they feel so much improved since eating kidney, liver, or brain—all substances rich in urea—in conjunction with urea ingested by the mouth. A few chronic phthisical patients have stated that these substances acted like a stimulant on them. Urea props up and holds together the tuberculous subject better than any other substance with which I am acquainted.

From my investigations among many families subject to gout and its allied diseases, including all forms of calculi except phosphatic, I am persuaded there is antagonism between these diseases and tuberculosis, and that this class of patients possesses a natural antitoxin against the bacillus. Here it is worthy of note that nuclein, which is used as a remedy in tuberculosis, in certain blood diseases accompanied by leucocytosis splits up and forms uric acid. "The discovery of the linking-on of toxin to proteid bodies and the assimilation by the cells, with the consequent appearance of anti-bodies, was one of the most remarkable contributions to the knowledge of immunity that had yet been made."[1] "A molecule of proteid, hitherto dead, coming within the grasp of the molecular forces of the living substance, is caught up by it and, as we phrase it, made alive."[2] Probably this is how urea acts when ingested by the tuberculous.

CASE 1.—A man, aged 25 years, a tailor, came under my care on Dec. 21st, 1900. He had been very ill for 10 months with cough, sputum, loss of flesh (1½ stones), and night sweats; his evening temperature was 101·5° F. There was much dyspnœa on exertion and he had a poor appetite. No hæmoptysis was present. The patient looked very thin and far advanced in phthisis. Physical examination revealed much damage to the right lung; percussion was dull; there were loud crackling sounds denoting rapid softening of the upper half of this organ; the sputum contained many bacilli; the prognosis was very unfavourable. The grave nature of his disease was explained to the patient and his aid was besought in carrying out the treatment. He was ordered to live outdoors nearly all the day and to eat four good meals daily, each meal containing plenty of animal food. He ate daily one well-cooked kidney or an equal weight of liver, calf's or sheep's brain. He was told that these things were given to him as a medicine and he took them willingly. Along with this pure urea in 20-grain doses four times daily in separate mixture was taken. After meals a mixture of hydrochloric acid, strychnia, and pepsine was taken as well to aid digestion; also half an ounce of cod-liver oil daily with breakfast. The patient soon expressed himself feeling better, gaining weight and strength, the cough and sputum lessening Now he says he is quite well, his weight being only four pounds below what it was at the begining of his illness. The sputum still contains bacilli.

CASE 2—A man, aged 38 years, came under my care on Feb. 28th, 1900. For many years he had been a carter. During the last three years he had kept a public-house and for a number of years had been a big beer-drinker. Two years previously his health began to fail, as manifested by repeated "bilious bouts." Slowly, shortness of breath and cough came on with rapid loss of flesh. He had several attacks of pulmonary hæmorrhage. When first seen by me he had been confined to his bed for 16 weeks, being nursed up in a warm room and afraid to have the door opened. He had all the appearance of long-standing wasting disease, including the clubbed finger nails. There were daily hectic, anorexia, and very frequent cough, with much sputum crowded with bacilli. The physical signs revealed a cavity at the left apex with loud cavernous râles and fine crepitation at the margin of infiltration with the sound lung. The heart sounds were feeble; the liver was distinctly enlarged. The patient was ordered out of bed and changed his room during the day. He was put on a light nutritious diet, including milk, fish, and mutton. A mixture of hydrochloric acid and strychnia, with pepsine, was taken after meals, the same as in Case 1; 20 grains of pure urea dissolved in water with half-minim doses of creasote in combination were taken soon after food thrice daily. On this treatment the patient soon showed improvement. Less cough and better appetite followed within a week; two weeks later he was able to go out for carriage drives. On April 1st he was able to walk freely and he had gained four pounds in weight. From this time onward improvement was more rapid. With the view of increasing the urea in the food ingested he ate daily one well-cooked kidney or an equal bulk of liver or brain-substance. The importance of these things as a medicine for his disease was explained to him and he ate them willingly. He has recovered so much that he is able to do work, including grooming his own horse, and drives about freely now. His worst trouble is dyspnœa on exertion. He has very little cough or sputum. Bacilli are sometimes present, more frequently absent.

CASE 3.—A man, aged 51 years, a stonemason, came under my care on June 20th, 1900. He had not been strong for several years and had been ailing 18 months with "bad cold," but was not laid up in bed; increased cough and more sputum followed. Since Christmas he had become much worse with more cough and dyspnœa. He had several attacks of hæmoptysis and marked laryngitis for one month; he had lost 1 stone in weight during the last six months. On examination the patient presented all the symptoms of stonemason's phthisis; he had a thin, wasted body with bad thoracic movements, hyper-resonance over the lungs, except at the right apex which revealed a cavity with marked metallic tinkling on deep inspiration. There were signs of many foci of tuberculosis in both lungs, areas of fine crepitation with coarse rough râles all scattered over. The sputum was full of peculiar short stumpy bacilli. A diagnosis of pulmonary and laryngeal tuberculosis was made The prognosis was grave

---

[1] Brit. Med. Jour., March 16th, 1901.

[2] Stewart's Physiology.

The treatment consisted of the following. He was put on very nutritious food; as much fresh butcher's meat as possible was consumed, with eggs, milk, cream, and one good portion of well-cooked green vegetables daily. One kidney well cooked or an equal weight of fresh liver daily was consumed with some one of the meals, usually the breakfast He lived in the open country in the hilly part of *Derbyshire and spent his time almost entirely out of doors.* He practised with light dumb-bells every day and did some light gardening. 20 grains of pure urea dissolved in water with half-minim doses of creasote suspended in a little mucilage were administered four times daily after the principal meals; also one ounce three times a day of the following mixture: 24 grains of sulphate of iron, 30 grains of carbonate of potassium, one and a half drachms of powdered myrrh, one and a half drachms of powdered glycyrrhiza, 12 minims of creasote, and water to 12 ounces were the medicines ordered. "Perfected" cod-liver oil or bynol was taken fairly regularly once a day with the food. The patient slowly but steadily improved, from the first gaining strength and suffering less; now he has regained his weight The laryngitis is almost gone. There is very little cough or sputum; the latter still contains bacilli. Except for dyspnœa he considers himself fairly well.

CASE 4 —*A boy, aged 16 years, employed at the telephone* office, came under my notice on Nov. 11th, 1900. There was no history of tuberculosis in the family. He had been ill for two months He was weak, losing flesh, and easily getting colds; during the last three weeks he had been much worse, with feverishness, night sweats, an evening temperature of 101 5° F., loss of flesh, very marked dyspnœa, and no hæmoptysis. A large quantity of yellow sputum was expectorated every morning which showed bacillus in abundance. The diagnosis of tuberculosis of the right base of the lung was made. The boy was sent into the country and ordered to eat plenty of all kinds of animal food, including kidney, liver, and brain. He spent the greatest portion of the day out-of-doors, knocking about actively, doing cycling, a little football, and dumb-bell exercise. 20 grains of urea, four times daily, with compound mixture of iron as above in separate mixture and a tablespoonful of cod-liver oil taken with breakfast comprised his whole treatment. On Jan. 20th, 1901, he had gained four pounds in weight, his cough had almost gone, and there was very little expectoration. From this time onward improvement was very marked, the cough and sputum ceasing entirely, the physical signs of lung disease gradually removing, so that now (June, 1901) it takes very careful auscultation to detect the difference in the two bases Apparently the boy is quite well. There is no rise of temperature or any other sign denoting latent tuberculosis at work. *He has* gained ten pounds weight in all.

CASE 5.—A married woman, aged 36 years, came under my care on August 20th, 1900. She had been ailing for five months; tuberculosis started from nursing her father-in-law in severe illness and loss of sleep The disease was ushered in with hæmoptysis, of which she had several attacks during the first week. Two months later she had a return, the same as before. One month previously to being seen by me she had another attack, much the same as the first. On first examination she complained of weakness and loss of flesh; she had lost six pounds in one month; there were dyspnœa, cough, and expectoration; the sputum was teeming with bacilli. There were much crackle and symptoms of softening of the right apex in the supra-clavicular region, involving the upper third of this lung. This patient had a peculiar, shiny, scaly skin, with the hands and face cracked and tending to bleed, and slowness of speech consequent on imperfect thyroid function.

Had it not been for the tuberculosis I would have administered thyroid gland for this skin trouble as I had done with success in cases of skin disease like this. But I had always looked upon the thyroid gland as a substance with disintegrating effect on the organism when ingested. This opinion was forced on me by having seen a woman drop from 18 to 14 stones in weight within 18 months on a selected diet with alkali and thyroid gland taken internally. In my experience of tuberculosis I have never seen any good follow from using reducing agents, such as mercury, iodine, or alkalies. Here I was not called upon to treat the skin primarily, but soon after the ingestion of urea and kidney by the mouth the skin disease vanished. This patient told me repeatedly how much good she derived from these substances —that they acted like a stimulant.

The patient was put on a liberal diet, rich in animal food, and sent into the country for two months for a change of air. She took plenty of exercise out of doors and felt cheerful and hopeful of improvement. She was put on compound mixture of iron with minim doses of creasote added; bynol fitted in with her principal meals; pure urea in scruple doses three times daily was her treatment. There has not been *any return of hæmorrhage. The patient improved from the* first, eating more food and gaining strength and weight She is now 10 pounds heavier than last August. This treatment has been a fairly perfect remedy for the pulmonary tuberculosis as well as curing the skin disease. She is gaining flesh and feeling well The sputum is now free from bacilli. The woman considers herself cured.

To me this case has special interest, as I have notes of three cases of myxœdema in women where I have attended in the same family more than one child with tuberculosis. Now, if we put the threads together of a case like this and bring to bear on it the light of experimental physiology it seems to me it leads us to conclusions of great importance. Thyroidectomy performed on carnivora is followed by death usually in a few days The same operation performed on herbivora is not followed by death. For instance, rabbits can live as well after as before the operation We know that *carnivora are more immune to tuberculosis than are rabbits.* The above facts seem to point to antagonism between thyroid gland and tuberculosis. On the other hand, families with imperfect thyroid function are liable to tuberculosis. Here it is worthy of note that thyroidin increases urea

Personally I have no fear of contagion in tuberculosis. I have formed this opinion after handling a considerable amount of the different forms of this disease during the last 17 years. I am constrained to make this statement because the terror of contagion is rife, so much so that one might think we had to deal with a disease as contagious as plague, enteric fever, or scarlet fever, whereas it is nothing of the kind. For instance, quite recently I was called in to see a patient with a mild attack of influenza. His wife had been in the habit of taking dainties to a consumptive in the very advanced stage of this disease. My patient had visited this man one week previously to my seeing him. When I first saw the patient he would insist that he had "caught" tuberculosis from the man he had visited. Further, he refused to use my clinical thermometer under the tongue, although he saw it washed in his presence. He must use his own new thermometer. This is terror of contagion with a vengeance The proverbial red herring in the form of dread of contagion has been drawn across the track, and is diverting medical thought from the path of true progress, which will be found to lie in a more careful study of the clinical history of the disease. In my cases of apparent contagion, such as husband and wife, there seemed to be a common cause at work—unhealthy home, following unhealthy occupations, or eating unsuitable food

Every practitioner who meets a case of tuberculosis needs to have it printed in letters of gold in his mind, that the disease is caused by a feeble microbe belonging to the vegetable kingdom, that it has taken up its position there in the human body by accident, that being a vegetable substance its natural habitat is not the animal tissues, and that his first thought should be to make things so uncomfortable for the intruder that it must cease its existence This can be done by slightly altering the toxicity of the tissues and fluids. This epitomises my opinion of the value of urea in tuberculosis A large number of the population possess a natural antitoxin against the bacillus; a smaller number are lacking in this In some that possess the natural antitoxin susceptibility can be acquired by unnatural or unhealthy surroundings, such as back-to back houses, always charged with CO_2, and badly ventilated workshops In persons leading unnatural lives, like dressmakers and needle-women who seldom taste animal food and subsist largely on weak tea and bread, here anabolism and katabolism are reduced to a minimum. The functions of the body are performed lazily. What I believe to be the natural antitoxins—urea, uric acid, kreatin, xanthin, sarkin, and guanin—are reduced accordingly. Deficient oxygenation within the tissues and stagnation by reason of CO_2 is the result. I believe the retention of the latter to be very conducive to the growth of the bacillus. This impression is formed from the peculiar sweetish carbonic acid odour, like that of a crowded room, I have noticed in these back-to-back houses.

Biology tells us that the bacillus is a vegetable micro-organism and if we study its cultivation bacteriologically we find it very interesting indeed. There is one cardinal principle and that is that a vegetable substance must be present in any medium selected to cultivate the microbe, the favourable being potato, agar-agar, and glycerine with meat broth. To my mind the bacteriological cultivation of the bacillus is suggestive of an explanation why a large number of herbivora are so susceptible to the tubercle bacillus. Most likely the blood and fluids within these animals contain just enough saccharine matter to provide a pabulum for the bacillus to grow in. The blood of carnivora being immune is deficient in this. Place side by side with this the acknowledged fact that excessive ingestion of starchy and saccharine food causes diabetes, and clinically that the diabetic fluids are a happy hunting ground for the bacillus, and it affords room for deep reflection in regard to both the causation and the prevention of tuberculosis. Contagion and prevention, which at present seem to monopolise public attention, are but two links out of a long chain of considerations respecting the ubiquitous tuberculosis. The problem of contagion and its corollary prevention is only partly solved by the discovery that a syringeful of dirt (bacilli are only this) injected into an animal sets up tuberculosis, and not even the support this receives from our being able to cultivate the bacilli outside the body settles this question. To-day we need to take the advice given in *Hamlet:* "By indirections find directions out."

The bacillus is no new creation. I have no doubt it was floating about in the garden with Adam. Phthisis was known to Hippocrates 460 years B.C. The prevention of tuberculosis begins, not with the bacillus, but with the crowding together of human beings in insanitary conditions lowering the vitality. Increase in the death-rate of tuberculosis goes hand-in-hand with crowding. The reason that the bacillus has assumed such importance is not from its deadly nature in itself, but that human tissue has been so transformed through civilisation and town life that the bacillus finds a suitable soil for its secret operation. This statement is borne out by the fact that in rural districts the death-rate from phthisis stands the same to-day as 50 years ago. This does not look like active contagion. It seems to me that it is time we viewed the disease in the light of modern physiology, and that now, after 19 years of fighting with the bacillus, we changed the scene of action and looked to the cell-units and the fluids which surround them—the bricks and mortar of the building—to try to discover the natural antitoxin. It is in the energies of the cell and the subtle juice that bathes it in the healthy state that the bacilli meet a foe clad in an iron armour which their missiles fail to penetrate. This explains why the healthy can live half, or even the whole, of their lives in dens of contagion and keep immune. Of course, viewed in this light, to tackle tuberculosis we must go to the fountain of mischief and acknowledge at once that it is the outcome of civilised life. The bacillus finds its favourite prey among those dwellers in cities who feel hardest the struggle for existence. We know that a man who follows a quiet, sedentary occupation consumes far less food than a man who does hard muscular work or leads an active, energetic life; we know also that the nitrogenous material excreted by the kidneys rises and falls with the amount of proteid consumed. Now if we apply this well-established truth in physiology to the patients who come before us with tuberculosis we shall see that it goes a long way to explain how those who follow sedentary lives, spending much of their time in vitiated atmosphere, fall a prey to the bacillus. I am referring now to town-dwellers. Here the intake and output are reduced to a minimum; the quantity of food consumed, meats especially, fall far below the standard needed for a physiologically healthy person; oxygenation in tissues and the elimination of CO_2 fall in the same ratio. The natural antitoxin which, I believe, belongs to the last extracts of animal food, of which extracts urea is the best-known representative in this chemical family, is too much diluted to arrest the bacillus at the moment of its entry. Once the bacillus takes up its abode in the human body we know how hard it is to dislodge. In the battle with tuberculosis the bacillus must be attacked from behind. It seems to me high time we gave up fighting the enemy by frontal attacks; and just as in the campaign now drawing to a close flanking resulted in success, so I think the principle should be applied to tuberculosis. Up to now frontal attacks have been the favourite, from burning brimstone, corrosive sublimate, carbolic acid, iodine, creasote, and, latest of all, formalin, to by-forms of these—*e.g.*, carbonate of guaiacol, benzosol, &c. We must flank the enemy by fixing our attention on the animal fluids, the common battle-ground. We have proof that there is a natural antitoxin for tuberculosis in both the human race and lower animals as well. Had it not been for this the human race would have been extinct ere now. Attention needs to be fixed on this; herein lies the prospect of advance. Bacteriologically the bacillus is a very feeble microbe, difficult to cultivate, a very trifling change in its environments being sufficient to arrest its growth—*e.g.*, change of air or food or occupation, or even a medicine rubbed into the skin of the abdomen for peritoneal tuberculosis. Connected with this is the fact that unless the bacilli possess a certain degree of the toxicity of their own products they cannot survive in the tissues of an animal, but are destroyed by the anti-bacterial properties of the tissues and fluids. By nature the cat is immune, but through long generations of domesticity in some instances it has become tuberculous, probably from being fed on milk, bread, and farinacea. This is a good example of an immune animal becoming susceptible. The underlying principle here applies to a large number of human beings whose food is physiologically wrong and who lead insanitary lives. We get good examples of this in the following classes. On looking over my cases these are the occupations that head the list of tuberculosis: clerks, warehousemen, lacemakers, framework-knitters, card-punchers, bobbin and carriage makers, lace-jenniers, lace-menders, clippers, machinists, cigar-makers, dressmakers, and needlewomen. In all these individuals the living machine works at less than half-steam pressure. Human beings are converted into money-making machines from stern necessity to earn their bread. They are like the horse on the bit—they cannot help themselves. This is a social problem urgently needing the nation's attention. I refer to town-dwellers.

If there is one thing above another that calls for the exertions of the National Association for the Prevention of Consumption, it is to distribute information relative to the very early beginnings of tuberculosis; also to inaugurate a system of voluntary examination of the apparently healthy who follow such occupations as the above, in order to anticipate tuberculosis rather than to let the disease get such a hold that treatment is of no avail. More good will result from this than from notifying the disease when "the man in the street" can tell what is amiss with the patient. Every practitioner has to lament that so many cases come to him too late for cure. No wonder the bacillus finds a happy home in these people. Their natural protection, the antitoxin, is destroyed or diluted to the vanishing point. The majority of these are cases of what I call "acquired susceptibility," and, I would add, are the most curable. In their standard of living their food is less than it should be by one-half, butcher's meat by two-thirds. The function of the cell-unit is practically in abeyance. The heart-beats and pulse are lessened from want of activity, the blood-stream that brings renewal and carries away effete matter in the healthy here doing its work lazily.

That rapid filling and emptying of the liver—the factory for turning out urea—is reduced in proportion; those rapid chemical changes associated with vital function are checked. In all these persons the fuel taken in to heat the furnace to keep the wheels of life moving is insufficient. One could write a prescription: half the number of hours of work, twice the quantity of food, animal food especially, consumed, four times as much exercise and fresh air, probably would prevent or would cure 50 per cent. of these cases. But the difficulty would be in dispensing this prescription. For years I have been struck with the low specific gravity and deficiency of solids in the urine of this class of patients; or in a few cases where the specific gravity is high this is from phosphates, which always denotes malnutrition.

In contrast with these I take the collier who I find very rarely suffers from tuberculosis, which seems remarkable from the dusty nature of his employment In colliers, for every single case of tuberculosis I see more than 30 with gastric disease In this class the intake and output of the organism are increased to the maximum and every living cell within the body is urged to do duty. Anabolism and katabolism have full play, imparting to the fluids such a degree of toxicity that it arrests the bacillus at the moment of entrance If one reviews the literature of the last 10 years on tuberculosis there is found a great effort to explain the mystery of suitable soil and unsuitable soil for the growth of the bacillus I think that Maragliano's serum most nearly unravels the mystery, but the great barrier to success with an agent like this is the difficulty in saturating the patient and maintaining this point of saturation sufficiently long to effect cure. I have notes of 11 families who are what I call typical cases of hereditary tuberculosis In these the lowest number of deaths per family is five; the highest is eight. I have selected these as exhibiting the most virulent form of the disease and the most incurable that the practitioner meets. In the majority of these cases I have tried all the known remedies, including mountain and country air, several patients making voyages to the Antipodes and residing there for a time A few have improved by the change, such as one patient who gained 40 pounds in weight by a residence of six months in Egypt but died one year afterwards Another spent two years in the hills behind Christchurch, New Zealand, but died 15 months after coming home. In nearly all these cases the treatment has been constructive, including fresh air, change of air, and abundant exercise The disease was approached by both frontal and flanking manœuvres in the form of drugs without avail. These cases are as truly hereditary as those of *diabetes, where a whole family succumbs to this disease* Still, I am sanguine enough to hope to see the time when we shall be able to apply a test to distinguish the susceptible from the immune

We have no remedy for cases like this until we discover an antitoxin. To me the point of interest in families like these is that some members are living and have remained well in [illegible] re standing as living [illegible] dividuals can live one [illegible] e bacilli and keep fr [illegible] the following that I have based this opinion 16 years ago I attended a man, aged 35 years, for destructive tuberculosis; he died within a few months. He left a wife and six little girls At various intervals since then four of these girls have been carried away I am now attending one of the remaining girls, ill with acute tuberculosis The mother nursed her husband and all the children with her own hands and yet remains in the best of health 18 months after her husband's death she married again; her husband also keeps healthy Further, there are three children by the second husband—the eldest being 11 years old the youngest [illegible] deformity of the thorax I tapped the father three years ago for acute pleurisy of the left side and now that lung is softening with tuberculosis 12 years ago the father married again and his second wife remains well, a picture of good health, yet she has nursed four of the diseased children, whose illness extended over four years in all, and has lived in such a nest of contagion. In another family where five sons died from virulent tuberculosis the mother nursed them all during a period of 17 years, yet she remains in good health, free from tuberculosis Surely this woman must possess a natural antitoxin to resist such inoculation.

It is surprising how people following such an unhealthy occupation as that of dustmen or tubmen, going about collecting night-soil, &c., who are inhaling bacilli probably every time the dust rises from emptying the tub, yet largely escape tuberculosis My explanation is that they are healthy men, much out of doors in all weather and good *feeders, and that the body is always well* charged with the end products of animal food, which acts as an antitoxin

Again, one comes across cases like the following which seem a paradox For many years I have attended a woman with typical winter-cough who is a dealer in old clothes and presumably inhales bacilli daily into her diseased bronchial tubes, where one would expect them to find a favourable soil for growth; and yet she keeps free from tuberculosis! I have examined her sputum several times with curiosity and always found it free from bacilli The following is another case A man, 50 years of age, a marine store dealer, who suffers from winter cough and who is inhaling daily the vilest dust loaded with all conceivable forms of bacteria, yet keeps free from tuberculosis Surely there must be a natural antitoxin here to arrest the bacilli at the moment of entrance

There is proof that alcohol lessens the production of urea in the liver; and when we remember that alcohol is carried almost direct to the liver, injuring the urea factory, this may explain why so many alcoholics lapse into tuberculosis Add to this the fact that there is such a large quantity of saccharine material circulating in the blood and diminished oxygenation in the lungs from weak heart, and in large beer-drinkers dilatation of this organ At present I have a good example of this in a publican [illegible] culosis and diabetes Weekly I t [illegible] yeast Before fermentation the [illegible], afterwards it is as low as from 1005 to 1010; urea 0 09 per cent Can we wonder that the bacilli find a home in these fluids?

Notwithstanding high authority to the contrary I believe there is antagonism between gastric ulcer and tuberculosis. *I base this statement on 400 cases of bleeding gastric ulcer.* I can find notes of only seven of these cases with gastric hæmorrhage and tuberculosis combined, being less than 2 per cent. Both diseases have a common cause, abounding most amongst those who follow sedentary and insanitary occupations, and both diseases are always preceded by anæmia, and dyspnœa is an early leading symptom. Take, for instance, *a number of machinists all working side by side* They have not long followed the work before anæmia manifests itself. One lot slide into gastric ulcer and another into pulmonary tuberculosis So far as the bacillus is concerned all have been exposed to a common danger—viz, this microbe floating in the air of the factory and all inhaling it alike Why this natural selection of the bacillus by one lot and not by the other? My reply is that these [illegible] predominant disease

It is a matter of every day observation that if a tuberculous woman becomes pregnant the tuberculosis becomes quiescent during the term of pregnancy, but immediately parturition takes place the bacilli become active I cannot remember signing a death-certificate of a tuberculous woman during pregnancy, although I have notes of 15 cases where the woman died from tuberculosis within nine months after parturition. In these cases there is evidently some antitoxin to the bacilli elaborated in the organism when in the pregnant state If we follow up this conclusion and consider the disease of pregnancy, puerperal eclampsia, which is caused by toxic substances of excrementitious matter circulating in the blood, which matter the excretory organs, notably the kidneys, fail to eliminate, this brings us into close quarters with the antitoxins which hold the bacilli in check during pregnancy, and that is the nitrogenous waste-products that abound plentifully both in pregnancy and eclampsia The nearest illustration that I can give of the value of urea in bad cases of tuberculosis is that it holds the disease in check—a check similar to that we see in pregnancy

The now well recognised fact that so long as pleurisy fluid remains in the thorax the activity of the bacilli is kept in check, but immediately the fluid is withdrawn the bacilli become active, suggests anti bacterial properties in this fluid; and when we remember that the pleurisy fluid is rich in albumin and contains urea, uric acid, xanthin leucin, &c, probably here urea plays the most important part as a bactericidal agent

Nottingham

NEW HOSPITAL NEAR BRISTOL.—At the meeting of the Kingswood (*Bristol*) *Urban Council held on June 5th* the chairman stated that under the provisions of the late Mr. Handel Cossham's will a general hospital will be erected at Kingswood The building, which is estimated to cost about £25,000, will shortly be commenced.

SULPHUR IN THE TREATMENT OF DYSENTERY.

BY G. E. RICHMOND, B.A., B.SC., M.B., B.S. LOND.,
LATE OF THE IMPERIAL YEOMANRY HOSPITAL, DEELFONTEIN, SOUTH AFRICA.

DURING my experience of the treatment of dysentery it seemed that none of the recognised methods were infallible. In giving sulphate of magnesia or sulphate of sodium it was of the utmost importance that the case should have come under treatment early in the attack, before much ulceration had taken place, as otherwise the septic absorption continued and in some cases little or no improvement occurred and the patient died in a condition of toxæmia with rapid failing pulse, delirium, and profuse diarrhœa, with much painful tenesmus The cases most suitable for this line of treatment seemed to be young adults of robust constitution. In giving ipecacuanha preceded by tincture of opium it was necessary to keep the patient in bed and almost to starve him whilst the administration of the drug continued to prevent the obstinate retching, which was otherwise certain to follow unless these precautions were taken, and which sometimes occurred despite all the care that was taken to prevent it. In such cases the misery of the patient racked with pain and worried with constant diarrhœa was greatly increased, and in scarcely a single case did the patient allow that his condition was ameliorated under 24 hours from the commencement of the treatment. Then in many cases, but not all, the diarrhœa became less, the tenesmus became much less painful, and the pulse, temperature, and general condition of the patient became much more satisfactory. Personally, before trying sulphur I came to the conclusion that Sir William Gull was correct when he summarised the treatment of dysentery in the three words, "rest, warmth, and ipecacuanha."

Tinc. Monsoniæ, combined with tincture of opium, was tried with pleasing results in some cases in which large quantities of blood were being passed and in some other cases where the dysentery had become more or less chronic, whilst in other cases, apparently quite similar, it was absolutely useless. Three minims of izal, combined with 20 grains of subnitrate of bismuth and from five to 10 minims of chlorodyne, was a useful prescription in many cases, and in most chronic cases bismuth and opium were prescribed for long periods with more or less success. Injections with boric acid, copper sulphate, and silver nitrate were frequently given in cases of obstinate ulceration and are undoubtedly of great service if the ulceration is situated in the rectum or the lower part of the colon, but can only be of slight service if the ulceration attacks the cæcum, ascending and transverse colon. Instead of izal I found that three minims of carbolic acid substituted in the prescription above were more reliable in action, and although many patients were taking 18 minims of carbolic acid per diem not a single case of carboluria occurred, although the urine was carefully watched in each case for this.

As none of these methods seemed perfect and as I was frequently coming across cases where it was desirable to change the treatment even more than once I thought that perhaps sulphur might be as useful in the treatment of dysentery as it had been found in the local treatment of anthrax in the place of ipecacuanha. I therefore prescribed 20 grains of sublimed sulphur combined with five grains of Dover's powder to be given four-hourly; the following are two of the cases in which this treatment was tried.

CASE 1.—Private ——, aged 34 years, was admitted into the Imperial Yeomanry Hospital, Deelfontein, on March 18th with dysentery. On admission the patient had been ill with dysentery for 11 days, having passed blood from the commencement of the attack. At first the amount of blood was slight, but latterly the motions had consisted of nothing but blood and mucus. For the last three or four days before admission he had been up all day and night with diarrhœa, passing nothing but blood and mucus. The bowels had been opened from 20 to 30 times or more in 24 hours. The pain in the abdomen was severe and straining was very distressing. The night before admission the bowels had been moved seven times; the motions contained no fæcal matter but consisted of blood and mucus and were small in amount. The temperature was 100·4° F., the pulse was 96, and the respirations were 20. The abdomen was distended and there was an area of acute pain and tenderness in the left iliac region with less severe pain over the whole of the left side. The abdomen was slightly rigid and did not move well with respiration. Palpation and even the slightest percussion caused acute pain over the iliac region. There was no vomiting but hiccoughs were present. The sulphur powders with Dover's powder were ordered on admission every four hours with belladonna fomentations to the abdomen. The next morning the temperature rose to 103·4°, the pulse was 100, and the respirations were normal, but the patient expressed himself as much more comfortable and better in every way. The abdominal condition was about the same as on admission. The bowels had been opened five times during the night and seven times during the day. Blood and mucus were still passed. The tongue was dry and covered with brown fur. On March 20th the abdomen was still very tender, but the pain was much less acute and the area of tenderness had greatly diminished, and palpation and percussion were easily borne. The straining was much less. The temperature fell to 99° at 6 P.M. The pulse was 84. The patient was still passing blood, but the motions were becoming fæcal. The bowels had been opened seven times in the 24 hours. On the 21st there was scarcely any pain in the abdomen and the tenderness had almost gone. The straining was improving. The motions were semi-solid and fæcal. No blood or mucus was noticed. The temperature was 98·2°. The tongue was clean and moist. After this the patient made an uninterrupted recovery. On the 25th the powders were given three times a day, the bowels being opened only twice in the previous 24 hours, and on the 26th one powder was ordered every night. On April 1st the patient was taking convalescent diet; he had no diarrhœa and was anxious to rejoin his regiment.

In this case severe dysentery had existed for 11 days before admission and from the abdominal condition there was evidently severe ulceration present, which no doubt gave rise to the temperature of 103·4° on March 19th, the day after admission. Plain milk was given on account of the abdominal condition, although farinaceous food as a rule seems to suit dysentery better than milk. From the very commencement of the treatment the patient became more comfortable, which is not the case with patients who are given sulphate of magnesia or ipecacuanha, who seldom own to any improvement in their general condition under 24 hours. It is also evident that the recovery was a rapid one, as in two days the motions had become fæcal and the diarrhœa was reduced to seven times in the 24 hours, and in eight days the patient had to be given an enema and was taking only one powder every night.

CASE 2.—Corporal —— was admitted to hospital on March 4th. He had been suffering from dysentery for five weeks. The bowels had been opened three times the previous night and 10 times in the hospital on the morning of admission. He had not passed any blood on the 4th, but was still passing mucus. The motions contained no fæcal matter. Tenesmus was troublesome. The abdominal pain was severe. Five grains of Dover's powder and 20 grains of sublimed sulphur every four hours were ordered about noon. On the 5th the bowels had only been opened once since the powders were given. The abdominal pain and tenesmus were much better. The patient felt much better and was much more comfortable. On the 6th the bowels had not been opened at all since the previous morning. The patient said that he felt "first-class." The powders were ordered three times a day. On the 8th the motions were fæcal and formed and rather constipated. The powders were omitted. On the 11th chicken was given and no diarrhœa occurred. On the 13th the patient requested to be sent to his regiment but was retained in hospital to recruit his strength and to see that no relapse occurred.

Here a very obstinate case of dysentery, which had lasted for five weeks, was cured immediately by the administration of sulphur and Dover's powders, and after recovery showed no sign of relapsing. In all of the cases that have been treated with sulphur the recovery has been rapid and the patient has seemed to derive relief more speedily from his pain and straining than with other methods of treatment. The cure with sulphur seems to be more certain and stable, as chronic conditions and relapses have not occurred, although with other remedies they have been prone to occur or the case has taken on a chronic condition. Blood and mucus are easily stopped and the motions quickly become fæcal. In some cases the number of motions per diem did not at once diminish, but the pain and straining were lessened and the character of the motions became more fæcal and contained little or no blood, and I was encouraged to continue the treatment because the patient's general condition was so much better.

I do not claim that sulphur is the one and only cure for dysentery, but I think it will be found a valuable addition to our stock of remedies for this most distressing complaint. Others may find cases which may resist its curative powers. At present I have not found one, nor have I found a single case relapse or become chronic, but I was not able to test it in a sufficiently large number of cases. As soon as the diarrhœa becomes less it is advisable to give the powders less frequently, otherwise obstinate constipation is the result. In some cases I have continued the sulphur treatment by giving half a drachm of the powdered sulphur every night alone. It does not, as a rule, give rise to much trouble from flatulence and tends to diminish the unpleasant smell of the stools. The sulphur seems to act as a strong antiseptic and to bring about a speedy healing of any ulcerated surfaces in the intestine. The amœba was carefully searched for in many cases of dysentery at Deelfontein but was never once found. It was searched for in all the cases which were treated with sulphur but was never found.

THE PRACTICAL CHOICE OF CLIMATE IN PHTHISIS.[1]

BY W. GORDON, M.A., M.D. CANTAB., M.R.C.P. LOND.,
PHYSICIAN TO THE ROYAL DEVON AND EXETER HOSPITAL.

To determine the best place of residence for a patient who is suffering from phthisis is frequently a matter of some difficulty. The differences in type, stage, and complexity of the disease, the differences in individuality of those who are attacked by it, their different ages, their different circumstances, and the great number of places recommended, both at home and abroad, with their different reputations resting on different degrees of merit, have combined to make the question both difficult and obscure. The accumulation of experience and its embodiment in statistics have lately done much to lessen uncertainty. Much has been written and with admirable straightforwardness, but published statistics and precise judgments are almost confined to climates outside England. Consequently, whilst resorts of known value are available for the wealthy, we are rather at a loss in our treatment of the poor, which must be carried out at home.

On the whole, be the reason what it may, there is probably no subject in the whole range of medicine which is at once so generally important and so generally unknown as medical climatology. It may therefore seem permissible to review very briefly the present position of climatology in its relation to phthisis, in order, first, to formulate some definite suggestions for our choice of foreign resorts; and, secondly, to gather from a general consideration of the subject some practical hints to guide us in the selection of localities at home.

PRELIMINARY CONSIDERATIONS.

The first question which confronts us is the unfortunate one of sanatorium *versus* climate. There can be no doubt whatever that sanatoria such as Brehmer instituted afford the best treatment for phthisis which has hitherto been invented, and that in these institutions many patients now recover whose cases formerly would have been regarded as incurable. But to claim, as some have claimed, that it is a matter of indifference in what climate you place your sanatorium is to make an assertion which is wholly unwarrantable. The most successful sanatoria abroad, such as Görbersdorf and Nordrach, enjoy climatic advantages for which their sites were actually chosen. Moreover, there are many patients whom even sanatoria cannot cure. For the present, therefore, it would be an act of unreasonable folly to discard the assistance which a climate of proved value can afford to rational treatment.

Proceeding to the consideration of the exact amount of help which we may derive from climate there is a point, sometimes missed, which ought not to be lost sight of—viz., that our patients come to us, not to be merely "improved," but to be "cured"—cured, that is, in the sense of having their disease permanently arrested. Therefore, in judging of the merits of a climate we ought to ask ourselves, not how many cases it "improves," but how many it "arrests." We have some evidence that these two effects need not run parallel to each other. Sanatoria, according to statistics, improve more first-stage cases than high altitudes,[2] whilst high altitudes arrest more first-stage cases than sanatoria.[3] Again, sea voyages are remarkable for the great proportion of early cases which are generally improved by them—a number almost as great as at certain sanatoria and at Davos[4]; yet the percentage of arrests produced by sea voyages amongst such patients is much below the percentage at Davos or at the sanatoria.[5]

In speaking of arrest one would deprecate the distinction sometimes drawn between cases of arrest in which the relics of disease are clinically indistinguishable and cases of arrest in which disease has been more extensive and has therefore left traces which are clinically obvious. To call the former "cured" and the latter "arrested" can only create confusion. Patients in both cases are in a practical sense cured; in both they may live to the natural term of life or in both they may relapse.

To judge justly of a climate, one must, however, distinguish between its effects in early cases and its effects in cases more advanced It may be found that conditions which produce the best results in early phthisis may not be the best for later cases. Also one must remember in treating of climates that there are cases to arrest and cases which can only be retarded and alleviated—that there are climates to get well in and climates where getting worse entails less misery than elsewhere.

Lastly, the time has come when patients must be told that treatment in a home or in a foreign climate means treatment by a medical man, and when those who will not or cannot put themselves under medical care must be made to understand that they leave home at their own risk.

CLASSIFICATION OF CASES.

For practical purposes we may divide our patients thus: patients who should be kept at home; patients who should be sent away; and patients who must decide for themselves whether they remain at home or not. And in considering the last two classes we must further divide them into two very different categories—the wealthy and the poor.

Patients who should be kept at home.—No one would be likely to send away patients suffering from acute miliary tuberculosis, acute disseminated tuberculous pneumonia, or acute pneumonic phthisis in its acute initial stage. One would not advise patients who are the subjects of advanced phthisis with albuminuria, phthisis with ulcerative diarrhœa, advanced laryngeal phthisis, diabetic phthisis, rapidly advancing phthisis, or phthisis with persistent high temperature due to tuberculisation to leave the comforts and the care which home alone can provide for them. In the cases only of the poor, where home can provide neither care nor comfort, may a move be advised and then merely to the nearest institution which can supply the requisite nursing and luxuries. Setting these cases, therefore, aside from further consideration we turn to those for whom the question of change of climate can be reasonably entertained.

Patients who should be sent away.—If a patient is already living in a suitable climate his medical adviser would hesitate before advising him to change it, but for practical purposes such cases are but few.

Let us consider first foreign climates as we can order them for the wealthy. For practical purposes we may enumerate the following varieties of cases: (1) early cases, young, vigorous, uncomplicated, with little or no fever; (2) early cases with recurrent hæmorrhages; (3) early cases which have originated in pleurisy or pneumonia; (4) early cases with little or no fever but in weakly persons; (5) early cases, "irritative, such as follow influenza";

---

[1] A paper read before the Devon and Exeter Medico-Chirurgical Society on May 17th, 1901.

[2] Solly: Handbook of Medical Climatology, p. 141

[3] Compare Williams's Aerotherapeutics, p. 114, with Knopf's Prophylaxis and Treatment of Pulmonary Tuberculosis, pp. 328, 329

[4] Compare Williams, op. cit., p. 143, and Solly, op. cit., pp. 132 and 133.

[5] Compare Williams, loc cit., and Knopf, op. cit., p. 326.

(6) "catarrhal phthisis"—i.e., with much bronchial catarrh; (7) "scrofulous phthisis"—i.e., with other tuberculous lesions, in bones, joints, glands, &c.; (8) fibroid phthisis; (9) bronchiectatic phthisis; (10) phthisis with emphysema; (11) laryngeal phthisis; (12) elderly patients; (13) erethric patients—i.e., "nervous, irritable subjects, neuralgic, dyspeptic, bad sleepers, with habitually quick pulse and dry harsh skins"[6]; (14) anæmic patients; and (15) patients with heart disease, arterial degeneration, or feeble circulation—"chilly" people. Taking these in order we shall probably not go far wrong in dealing with them as follows.

1. Early cases—the patients being young and vigorous and the condition uncomplicated, and there being little or no fever—should be sent to the Swiss Alps in preference to any other locality, and of the Alps we may safely take Davos as a type. Their chances of recovery in the Alps are greater than at any other place, at all events in Europe. There is rail all the way to Davos, and the journey from London takes about 30 hours. It is usually unnecessary to break the ascent. The end of September is the best time to arrive there, and the patient should be prepared to remain two winters and a summer. But a patient may go to Davos later in the season, although it is better not to arrive so late as the end of January.[7] On returning the descent should probably be broken, and Ragatz or Wesen might be chosen as a halting-place. Dr. Williams's[8] statistics for patients at high altitudes give the following figures:—Of 67 cases in the first stage with one lung affected 66 per cent. were arrested; of 52 in the same stage with both lungs affected 38 per cent. were arrested; and of 86 in the second and third stages 16 per cent. were arrested. No other climate in Europe can rival these results.

2. In early cases with recurrent hæmorrhages the Alps are also indicated, provided that a few weeks have elapsed since the last attack of hæmorrhage.

3 Early cases which have originated in pleurisy or pneumonia should also be sent to the Alps.

4. Early cases, uncomplicated, with little or no fever but in weakly persons, *if they do not feel cold easily* may also do well at Davos Usually, however, a warmer climate will have to be recommended. If sent to Davos they should break the ascent at some intermediate altitude, such as Ragatz or Wesen. If Davos is decided against they may be sent to Egypt, the Riviera, or to a sanatorium such as Nordrach. The season in Egypt is an exceptionally short one. Patients arrive in November and must generally leave in March. The journey takes about six days from London, and three of these are spent at sea. Helouan near Cairo, Luxor, or Assouan may be chosen for the season. The results seem to be excellent, but at present I cannot discover any precise statements of percentage of arrests. Patients leaving Egypt must find some other resting-place till the end of May at earliest. The Riviera is nearer home, less expensive, but apparently less certain in promoting arrest. It seems unfortunate that separate statistics are not available for the different towns along it. It is difficult to imagine that mistral-swept Hyères and mountain-sheltered Mentone produce the same improvement. Patients should arrive on the Riviera about the last week in October and should not return to England before the end of May If the weather becomes too hot they may move inland to Grasse or travel north in May to some pleasant place like Badenweiler in the Schwartzwald. Nice is to be avoided, Cannes is uncertain, Hyères is very windy in February and March. San Remo[9] and Mentone are probably amongst the best places on the coast. It is curious that whilst patients who have wintered in Davos can return to England in May with little danger of chills patients from the Riviera are very much more vulnerable.[10] The Riviera seems in this respect to occupy a position intermediate between the high Alps and sea voyages, for the tendency to relapse on landing from a sea voyage is a well-known characteristic. It cannot, however, be imagined, after a careful perusal of the literature, but that with the constant supervision to which phthisical patients are at last submitting, with the avoidance of chills and of those social excitements which so often prove disastrous, some parts at least of the Riviera should yield in selected cases most satisfactory results.

With regard to sanatoria the most famous ones only may be considered here. The doctrine of systematic supervision of a phthisical patient's whole life in an institution for the purpose where continual open air, abundant pure food, and regulated exercise are the essence of the treatment, was first formulated by Brehmer and was put in practice at Görbersdorf in Silesia, a small village in a sheltered valley 1700 feet above sea-level. There the results attained surpassed all previous European records, and daughter sanatoria began to be erected in other parts of Germany. Of these, perhaps the most notable are Dr. Dettweiler's at Falkenstein and Dr. Walther's at Nordrach. In England the Nordrach system is generally gaining in favour and the excellent institutions now rising in various parts of these islands are more or less modelled upon it. It is difficult at present to compare the results achieved at different sanatoria, but of their general value an idea may be gathered from the statistics which Manasse published some years ago from Görbersdorf.[11] Of 1390 cases in the first stage 27·8 per cent. were arrested; of 2225 in the second stage 6·83 per cent. were arrested; and of 1417 in the third stage 0·48 per cent. were arrested. There is no special season for going to these sanatoria. The time merely depends on the occurrence of vacancies. The length of stay depends upon the case and is fixed by the medical man in charge of the institution.

5. Post-influenzal cases with considerable irritation are said to do particularly well on the Riviera.[12]

6. "Catarrhal" phthisis is the one variety of the disease which is said to do well at Madeira. The voyage to Funchal from London occupies about three and a half days in the fine Cape steamers. It is the only place within so short a distance of our shores where winter is really absent. But for the early cases which do so well at Davos a winter in Madeira may be a terrible mistake. Patients liable to diarrhœa ought not to be sent to Madeira and all patients must be instructed to boil all the water they drink. When the best has been said of Madeira there still remains in the mind the feeling that it is a risky climate and personally I should prefer to send "catarrhal" cases to a sanatorium than to run the risk of recommending it.

7. Patients who are the subjects of "scrofulous" phthisis may be sent to the Riviera.

8. Sufferers from fibroid phthisis will probably do as well on the Riviera as anywhere.

9 In cases of bronchiectatic phthisis the patients will perhaps do best in Egypt.

10. In phthisis with emphysema the patients do well in Egypt or on the Riviera.

11. Patients suffering from laryngeal phthisis may perhaps do best at San Remo or Mentone. Dr. Walther, however, tells me that such cases recover at Nordrach, and so Nordrach will naturally be thought of in sending them abroad.

12. Elderly patients will find Egypt or the Riviera their best wintering place.

13. Erethric patients will find Egypt the best place.

14 and 15. Anæmic patients, patients with heart disease, arterial degeneration, &c., should probably choose Egypt or the Riviera.

It will be observed that a very limited number of localities have been mentioned. By thus confining consideration to the few needless complexity is avoided and the remarks are limited to places which have at least well-established reputations. There are, however, other foreign health resorts which have either unquestioned merit or are so well known that patients will inquire about them. The chief of these are as follows. The Andes in the neighbourhood of the Equator possess probably the best climate in the world for phthisis. It is asserted that at Jauja in Peru 79 per cent. of all cases are arrested.[13] But although the journey to Jauja is a shorter one than that to Australia—only about four or five weeks from London—it is scarcely of such a character that one could recommend it to many patients. Much of the distance lies within the tropics with their special dangers to phthisical patients. The yellow-fever country has to be crossed at Panama, and finally the journey from Oroya, where the railway from Lima ends, is two days on muleback over passes higher than the highest European mountain, so that mountain-sickness often overtakes both man and mule. The accommodation, too, on arrival, the food, language, and society, are Spanish, and the invalid should be prepared to rough it during his residence Once established there, however, he will find the climate one of everlasting spring and may remain at Jauja until he has fully recovered. The accounts which have reached us from time to time of this valley, as well as of Quito, Santa Fé de Bogota, of La Paz in Bolivia, and other places in those regions, are certainly extraordinary, and, if readier means of access should sometime become available, the profession will no doubt endeavour to utilise them for Europeans. Colorado is probably as valuable as Davos, and has the advantage of affording the essentials for permanent residence and occupation. But the journey is a long one and the living is expensive Southern California possesses a climate which has been greatly praised. But the distance is very great and exact statistics do not seem available The Adirondacks sanatoria produce equally good results with the European. The high inland plains of Australia and South Africa afford for vigorous young men with early phthisis an excellent chance of recovery and a field for enterprise. The Darling Downs of Queensland and the Karroo at the Cape have yielded some of the best results which climate can afford. But the patient who goes there should remain there till he is well. He must also be prepared to rough it The Canaries seem to have been inadequately tested To class the whole group together is a very great mistake A patient of mine whom I sent to Las Palmas 10 years ago is now quite well and lives all the year in England. Algiers has proved useful in a considerable number of cases Malaga in spite of its want of sanitation seems to have been singularly successful Of Dr. Williams's 10 patients every one did well [14]

---

[6] Sir R. Douglas Powell Diseases of the Lungs, note p. 503.

[7] Allbutt's System of Medicine, vol. i Weber and Foster Climate in the Treatment of Disease, p. 283.

[8] See his table, loc. cit.

[9] "San Remo has probably the best climate on the Riviera" (Lindsay: Climatic Treatment of Consumption, p. 181).

[10] Williams. Pulmonary Consumption, pp. 377 and 381.

[11] Knopf, loc. cit.

[12] Weber and Foster, op. cit., p. 290.

[13] Dr. Fuentes, quoted by Dr. A. Smith, Dublin Journal of Medical Science, vol. xli., p. 353.

Lastly, it is necessary to say something of sea voyages So much has been written about them that it is impossible to pass them over Perhaps there is no important subject in medical climatology on which such widely differing views have been expressed, and taking all the "pros" and "cons" into account we shall probably do wisely in ceasing to recommend them This is so strong a statement and one so much at variance with general opinion that it is necessary to explain the reasons which support it. To gauge the merits of sea voyages we must compare them with other modern means of climatic treatment Consequently Dr Walshe's [15] oft-quoted eulogium, which follows five pages after his reference to "the startling *quasi* sensational novelty of treatment in the Alps," must be regarded as out-of-date No one can read the admirable accounts of the voyage to Australia in a sailing ship round the Cape—admittedly the best voyage—given by Lindsay [16] and by Wilson [17] without feeling the gravest misgivings about the wisdom of sending patients through the probable vicissitudes The gales and sea sickness of the Channel, the depressing heat or steamy vapour of the Doldrums, and the heavy seas of the Roaring Forties are a large price to pay for the intervening stretches of pleasant breezy weather Dr. Williams's [18] statistics give 12 per cent as the proportion of arrests in first stage cases sent to sea This does not compare favourably with 27 28 per cent on dry land at Görbersdorf, or 57 per cent. at Davos Again, while Davos arrests 16 per cent of second- and third stage cases, and Gorbersdorf 6 83 per cent second-stage, and 0 48 per cent third stage cases, not one of Dr Williams's second or third stage cases was arrested. A careful perusal of works on the subject convinces me that Dr Coupland Taylor,[19] himself a patient as well as a medical man, sums up the matter wisely. He says. "Any slight advantage there may be as to the pureness of the air of the ocean is, I maintain, far outweighed by the manifest disadvantages to an invalid at sea, such as the close ill-ventilated cabins, the draughty saloons, the weakness and straining caused by sea sickness, the damp sea fogs, the enforced confinement below during bad weather, and the great trial to an invalid of passing through the tropics"

It is sometimes said that "quiescent cavity cases" do very well on a voyage They certainly do not *get* well, to judge by Dr Williams's figures But the opinion is so far dangerous that it is almost certain to lead to a number of advanced cases being sent away to sea For such cases—advanced cases—Dr Coupland Taylor [20] says, "The sea is simply a fatal remedy" Dr. Burney Yeo [21] has done good service in drawing attention to this point and it is so important that I quote at length the following. "Dr. L. E Shaw . . . says: 'No one who has acted as surgeon to an invalid ship, who has seen patients with advanced phthisis suddenly transferred from their comfortable invalid homes on land to the small accommodation and scanty luxuries which, with the best intentions, the authorities are able to provide for them at sea; no one who has watched the fearful anxiety of these patients to get back to their homes when they find their disease progressing, and who, finally, as their best and only friend, has received their last messages for their relatives, could possibly recommend a long sea voyage as a justifiable treatment in such cases" Again Dr Yeo [22] quotes Dr J de B. Griffith, physician to the Melbourne Hospital, who writes: "My personal experience of sea voyages and my position at the antipodes enable me to speak with some knowledge of the effects of a sailing-ship voyage on delicate people, and I feel quite sure that medical men do not know what they are advising when they recommend patients in advanced phthisis to come to Australia in a sailing ship" Dr. Taylor [23] mentions one voyage in which of 10 phthisical patients six died soon after their arrival

Of course, when a phthisical patient has made up his mind to settle in the great inland plains of America, Australia, or South Africa he must undertake a sea voyage Even then, it seems to me, this should be regarded as a risk. Dr. B J. Guillemard,[24] in writing of the voyage to the Cape, says: "It has been the custom to recommend a sea voyage to invalids as a universal panacea for every ill, but it must be strongly insisted upon that it has very real risks to the invalid, and for want of precautions many have arrived in Table Bay in a worse state of health than when they started."

No one of course will question the fact that phthisis in its early stage can sometimes be cured at sea, but, as sea voyages now are, early cases can be more certainly and safely cured on land The day may come when a sort of floating Nordrach will cruise continuously in the most health-giving and least tempestuous of oceans, but that day is not yet Meantime (unless special circumstances make a sea voyage desirable, such as an opening for employment on board ship in place of an unhealthy home), let the sea voyage be for the phthisical patient a means of transit and of transit only, and let the traveller choose as far as possible the fastest vessel and the safest route

Foreign climates for the poor are practically non existent

The question of home climates for the wealthy is the same as the question of home climates for the poor, and therefore we may proceed at once to the consideration of home climates generally. Some few years ago, I think I am correct in saying, it was usual in the profession to undervalue the climates of our own country. Now there is a tendency to think that, with the addition of sanatorium treatment, they are all that can be desired This latter view may prove to be correct, but when we come to the practical question of the best site for a sanatorium in this or that neighbourhood we soon begin to realise how much we have still to learn We can divide English climates into sedative and stimulant, inland and marine, autumn and winter, and such divisions are useful; but when we are asked to point to a definite place on the map and to say with confidence to a phthisical patient, "That is *the* place for you to go to, and your chances of recovery there amount to so much," I fancy most of us rather feel ourselves at a loss Yet that is what we ought to be able to do Although a great deal of valuable work has been done, as everyone knows, on the climate of England, we still know so little that we may approach it as almost a new subject If we want some sort of certainty in the placing of sanatoria we must investigate localities more closely than hitherto In such an investigation three methods of inquiry will occur to us especially 1 The collection of statistics of the results of treatment of phthisis in the area which we are studying, distinguishing between first-stage cases and cases more advanced and between cases arrested and cases only improved We may call this the *method of comparing curative effects* 2 The accumulation of meteorological records, temperatures, rainfall, sunshine, &c, together with comparison of soils, physical features, and so forth This may be called the *method of comparing physical peculiarities* 3 The observation of the death-rates from phthisis in the resident population with a view to finding the areas of lowest phthisis mortality. We may call this the *method of comparing phthisis immunities.*

---

[14] Op cit., p. 56.

[15] Diseases of the Lungs, fourth edition, 1871, p 655.

[16] Op cit.

[17] The Ocean as a Health Resort.

[18] Op cit. p 81

[19] Wanderings in Search of Health, p. 16

[20] Op cit., p 18.

[21] Climate and Health Resorts, p. 643.

[22] Op. cit., p 648

[23] Op. cit., p 17

[24] Health Abroad, p. 63.

Of these it is obvious that the first is by far the most important since it alone can give really certain information. But it is not available. Dr. Theodore Williams's[25] interesting tables deal only with "improvements," and are therefore only suggestive. The sanatoria being established in different parts of the country will in years to come afford the necessary data and will then enable us to place home climatology on the same scientific basis as that on which a part of foreign climatology already rests. But for the present we must fall back on other methods of inquiry.

The second method by itself has led us into error on more than one occasion. Pau and Madeira are, so to speak, "some of our failures." Whilst many valuable facts are at our disposal, so many facts are uncertain, that to depend for choice of climate on a comparison of the physical peculiarities of a district is, it seems to me, almost to court mistake.

The third method, though far inferior to the first, is nevertheless worthy of more consideration than it has hitherto received. It is easy enough to ascertain the phthisis death-rates in the parishes and there is every probability that these will be practically accurate. There is not a very serious danger that phthisis nowadays will be mistaken at its termination. But the Registrar-General's reports deal with too large areas for the purpose. It does not, of course, follow that because a district is very free from phthisis that this freedom may not be due to merely accidental causes—i.e., causes other than climatological influence. If, however, it can be shown that over a considerable area the variations in the death-rate from phthisis follow closely the variations of some climatic influence, the conclusion may be fair that the freedom of certain places is climatic and not accidental. We may further test the soundness of this conclusion by examining other areas to see if the same law holds, and, still further, by endeavouring to test its truth by a reference to well-known climates abroad. Finally, we may endeavour to gain some explanation of the way in which the particular climatic influence produces the variations in the phthisis death-rate. We may thus arrive at a judgment that certain low-mortality areas for phthisis owe their comparative immunity to definite climatic advantages, and it is at all events worth trying whether or not such areas will specially promote recovery from the disease. It is not logically necessary that they should do so, but it certainly seems likely. We may remember that the places abroad which have yielded the best results in the treatment of phthisis are places where phthisis was known to be uncommon. At Quito and Jauja phthisis was said to be exotic, at Davos it was scarcely known, at Görbersdorf it was rare, and at Mentone it was eight times rarer than in London. I would suggest the establishment of sanatoria for phthisis in places ascertained to be climatically immune.

To illustrate this method of ascertaining the death-rates and taking their dependence upon climate I would refer to an inquiry which I have made in our own county with reference to one climatic factor. Amidst the vicissitudes of medical fashion I believe in the value of Devonshire. The Devon cattle at all events are remarkable for their freedom from tuberculosis. We have watched even hospital out-patients recovering in reasonable proportion. There are many areas in Devon where the death-rate from phthisis is far below the average. There are parishes in Barnstaple district, in Okehampton district, and in the neighbourhood of Exeter where for 10 years there has not been a death from the disease. The whole rural district of Axminster has a death-rate from phthisis of only 0·6 per 1000, Seaton has for 10 years had this same mortality among its residents. Sidmouth has a very low mortality from phthisis. It is needless to multiply instances. For purposes of illustration we may restrict ourselves to Devon, and in the matter of sanatoria for our poorer patients we must. In the rural district of Okehampton, in the centre of the county, there is a remarkable correspondence between wind-exposure and phthisis, and shelter from wet winds seems to determine a very low death-rate from the disease. For the figures I am indebted to my friend Dr. E. H. Young, and in another paper I hope to do fuller justice to his most valuable assistance. At the south-east angle of this district there is a group of three parishes,—Gidleigh, Chagford, and Drewsteignton—where the collective mortality from phthisis in the last 10 years has been 0·7 per 1000 per annum. As the average annual mortality for England is just about twice as great one may fairly call this group of parishes a low-mortality area. Should we regard this low mortality as climatic or accidental? The parishes in question are sheltered by the heights of Dartmoor from the prevalent wet winds. The west wind and the south-west wind have practically no access to them, and if we construct a map of the exposures of the Okehampton district parishes to these two winds and compare it with a map of the phthisis death-rates of the parishes we discover a correspondence which is singularly striking. If we go further and compare it with a map of the phthisis death-rates in the parishes among the females only the correspondence becomes more striking still. If, on the other hand, we compare geology, or rainfall, or exposure to other winds with the distribution of the death-rate from phthisis we find no such correspondence except that the north-west wind seems to have a slight amount of influence. From a study of the district, therefore, one is led to the belief that the low mortality of the three parishes is due at least largely to climatic peculiarities. Can we confirm this by examining the death-rates of other districts? In the rural districts of Barnstaple, of Newton Abbot, and of St. Thomas (the only districts which I have yet examined) we find the same relationship between the wet winds and phthisis. The most sheltered rural district in Devon as regards west and south-west winds is the Axminster district and it has the lowest death-rate from phthisis. Conversely the most exposed rural district in Devon has the highest death-rate from phthisis. A medical man who practises on both sides of a ridge of hills running north and south tells me that his phthisical patients die fastest on its western slope. In our own hospital at Exeter cases of phthisis do badly when the winds are blowing from the wet quarter. The belief is thus confirmed that the low mortality in question is due to shelter from these winds. Can we get any further confirmation from our knowledge of foreign places? To form on opinion on this point we may take such health resorts as have achieved undoubted success. Confining ourselves to those on which we have clear statements, Davos in the Alps, Colorado Springs in the United States, Nordrach in the Black Forest, and Görbersdorf in Silesia may be safely called successes. Davos, according to general agreement, is almost windless in winter except when the rare Fohn is blowing. Nordrach is well sheltered, and Görbersdorf gets no strong winds. Only Colorado Springs is windy, but all winds at Colorado Springs are particularly dry. Therefore in all these places strong wet winds are absent.

Finally, can we get any rational explanation which may tend to satisfy those who doubt the possibility of such an influence of special winds? Professor Beneke's experiments on the cooling of flasks of water exposed respectively to sea-breezes and to inland breezes demonstrated a more rapid cooling of the flasks which were exposed to the sea-breezes, which are, of course, the damper. Perhaps here lies the explanation. May we not suppose that exposure to prevalent wet winds is synonymous with the well-worn expression "exposure to cold and wet"? Altogether it seems reasonably clear that shelter from west and south-west has a great deal to do with the low phthisis mortality of the three parishes alluded to. So far, then, these parishes enjoy a climatic immunity, and therefore I would suggest that their area is one which might reasonably be tried as "curative." I have only made experiment of their curative power in a single case of phthisis, but that case, an early one, did exceptionally well. After spending the coldest months of one winter in the neighbourhood of Chagford the physical signs at the affected apex had practically disappeared. I should add, however, that this patient afterwards went elsewhere and relapsed.

I do not think that many people will assert that it is a matter of indifference where one places a sanatorium, but I fancy that many people imagine that the difference is small between one part of a county and another. That is a question which experience must decide. But it surely would be wiser before spending money on a building to endeavour to determine the district which is most promising. I would suggest the selection of low-mortality areas where there is reasonable evidence that the relative immunity is due to the local climate and within those areas to choose sites which shall satisfy those conditions which experience has shown to be important for success. The conditions may, perhaps, be stated thus: a dry soil, pure air, abundant sunshine, the absence of wind (may I say especially wet wind?), the absence of dust, the absence of fog, and the avoidance of the *immediate* sea front. By this last I would not by any means imply an avoidance of the coast. But the *immediate* sea-front seems certainly less desirable than a short distance from the shore. A high altitude I do not mention as it is not obtainable.

---

[25] Influence of Climate on Pulmonary Consumption, p. 56.

Patients who must decide for themselves whether they remain at home or not.—These patients may perhaps be enumerated thus (1) patients with early phthisis and some albuminuria; (2) patients with advanced phthisis; and (3) patients with recurrent hæmorrhage from a cavity. The practical difficulty arises in these cases chiefly with regard to foreign travel. We may therefore content ourselves with a brief allusion to places abroad.

1. Those with early phthisis and some albuminuria had better choose Egypt or the Riviera

2 Those with advanced phthisis had better let the Riviera be their limit of distance.

3. Those with recurrent hæmorrhage will be safest in a sanatorium.

There is also a class of patients who come into this category—viz, those whose wish it is to spend their last months amidst beautiful or interesting scenery. For these, of course, there need be no hard-and-fast rules. We must only ascertain that they have made up their minds and fully understand the exact reason for their journey.

CONCLUSION.

In concluding, I would like just to retouch the main outlines of this necessarily crude sketch. In the choice of foreign climates—the climates for the few—we have now some very definite indications, indications much clearer than some people seem to think. In the choice of home climates—the climates for the many—we have no such definite indications, and, indeed, we know much less about them than some of us are willing to admit. Sanatoria, whilst of immense value, do not supersede climates, and the success of our English sanatoria will depend largely on the sites which are chosen for them. Consequently, it seems to me that a study of home climates such as should give us the same precision in their selection as we now enjoy in the case of certain foreign climates is a matter of immediate importance. If we are to reap in England the greatest benefit for the greatest number of phthisical patients for whom we are responsible we ought to combine the erection of sanatoria with the selection for them of those localities which seem most promising from a climatic point of view.

I have to express my acknowledgments to the authors of whose writings I have freely availed myself, as well as to those friends at home and abroad who have been so good as to give me much valuable information.

Exeter.

FOUR CASES OF PERFORATION (GASTRIC AND DUODENAL) SUCCESSFULLY TREATED BY OPERATION.[1]

BY A. CHRISTY WILSON, M.D. EDIN.,

SENIOR SURGEON TO THE DONCASTER INFIRMARY.

MANY cases of perforating ulcer have been recorded and each of the following cases presents features of interest

CASE 1.—A man, aged 28 years, was admitted into the infirmary at 7 P.M. on May 19th, 1898, in a collapsed condition, complaining of intense pain in the epigastrium. For six years he had been treated for gastric ulcer, and hæmatemesis had occurred several times. During the day he had eaten heartily of cold fried fish, hot preserved peas, and new bread, washed down with copious draughts of beer. His abdomen was as hard as a board, without movement on respiration and with absence of liver dulness. Ether was administered four hours after perforation and a median incision was made from the ensiform cartilage to the umbilicus and a perforation was soon found on the anterior wall of the stomach half an inch from the pylorus. The perforation was surrounded by some induration and was difficult to get at owing to an overhanging enlarged liver. The ulcer was stitched up, then came a row of Lembert silk sutures, and over all I stitched a fold of omentum. In order that the pelvis should be thoroughly cleansed a second opening was made above the pubes and a quantity of foul fluid and some peas were cleared out. Several gallons of sterilised normal saline solution were used for flushing, and the wounds were closed with silkworm gut sutures which inclosed the whole thickness of the abdominal wall. He had a little bronchitis, probably from the ether, but recovered rapidly, and was discharged from the infirmary under five weeks from admission. 18 months later he came to show himself greatly delighted that his dyspepsia was cured and that he could eat all kinds of food with impunity.

CASE 2—A man, aged 21 years, was awakened at 3 A.M by a sharp pain in the stomach and took a teaspoonful of laudanum with such marked relief that at 6 o'clock he walked two miles to his work. He had very little pain until next day, when I was called in. I found that there was a history of dyspepsia and the presence of severe pain shooting from the edge of his left ribs to the left shoulder blade, every breath causing a gasping moan. There was no sickness or friction and it was impossible to say whether it was gastric perforation or diaphragmatic pleurisy. I advised operation, but could not gain consent until 92 hours after the onset of the acute symptoms. A median incision was made, and as soon as the peritoneum was opened there was an escape of fœtid gas and pus from a cavity separated by dense adhesions from the general peritoneal cavity. The small oval perforation was difficult to stitch up, as it was well under the left ribs, and the stomach was so tightly bound with adhesions that it could not be pulled forward. The left lobe of the liver and the stomach were thickly covered with putrid lymph, a large quantity of which was removed. The patient was discharged cured in two months and continues to enjoy excellent health.

CASE 3—In this case, that of a man, aged 22 years, perforation took place soon after a hearty meal of beef, potatoes, peas, bread, butter, and beer. My son, Dr. W. R. Wilson, sent him to the infirmary and five hours after perforation I found the opening in the centre of an induration two inches in diameter and half an inch thick, to the left of the middle line. A large amount of food had escaped and there were flakes of lymph in all directions. After stitching the ulcer up with two rows of sutures a second incision was made in the hypogastrium and flushing and sponging were vigorously applied. The patient was discharged in less than a month and has gained 21 pounds and is in robust health.

CASE 4—The patient in this case, one of perforating ulcer of the duodenum, was a man, aged 48 years, who for several years had been troubled with indigestion, but whilst employed as usual at his hard work one morning was seized at 11 30, three hours after breakfast, with severe pain in his epigastrium. He presented all the symptoms of perforation, but he refused operation until 28 hours after its occurrence. Ether was administered, and as soon as the peritoneum was opened by a median incision a quantity of bile-stained mucus escaped, suggesting perforation of the gall-bladder. The perforation was found in the anterior wall of the duodenum, about an inch from the pylorus The perforation was closed with a double row of stitches, the wound being enlarged to within four inches of the pubes. There were all the signs of advanced peritonitis, all the viscera having large patches of yellow lymph adhering to them, and the pelvis was full of septic fluid The "toilet of the peritoneum" was performed most carefully with the aid of large pieces of lint wrung out of biniodide of mercury solution. Coil after coil of the intestine was pulled out, scrubbed, and put in again, and the liver, stomach, and pelvis were cleansed as thoroughly as possible Normal saline solution was freely used for flushing, as in all the other cases. His recovery was slow, but he continues in his regular hard work and in excellent health.

The above are brief notes of all the cases of gastric ulcer that I have had, and not selected cases. Perforating ulcer of the duodenum is much commoner in men than in women, but that of the stomach is the reverse. My old college friend, Dr. G. H. Hume of Newcastle, has recently published all his cases of operation for perforating gastric ulcer—11 with six recoveries and every one was a woman. The percentage of recovery is usually stated to be in proportion to the length of time from perforation to the operation, but in my second case 92 hours elapsed Perforating ulcer of the duodenum is said to be much more fatal than gastric and yet my man recovered in spite of 28 hours' interval. I am of opinion that sex influences the result more than duration. Most women who have perforation are profoundly anæmic and fortunately my men were not. Thoroughness of cleaning is, I believe, of very great importance. In all four cases the pelvis contained a large amount of purulent looking fluid, large flakes of lymph, and in two cases a good deal of food. A second incision above the pubes affords better access to the pelvis and leaves a stronger abdominal wall than a long single incision.

---

[1] A paper read before the Leeds and West Riding Medico-Chirurgical Society on May 3rd, 1901.

My best thanks are due to my colleague, Dr. E. W. Selby, for his able assistance during the operations, and to Mr. W. R. Willey, house surgeon to the Doncaster Infirmary, for his unremitting care of the patients and for notes of the cases.

Doncaster.

THE
TREATMENT OF PUERPERAL ECLAMPSIA BY SALINE DIURETIC INFUSIONS.

BY ROBERT JARDINE, M.D. EDIN., M.R.C.S. ENG.,
F.F.P. & S. GLASG., F.R.S.E.,
SENIOR PHYSICIAN TO THE GLASGOW MATERNITY HOSPITAL; EXAMINER IN MIDWIFERY TO THE UNIVERSITY OF GLASGOW; PRESIDENT OF THE GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

THE subject of puerperal eclampsia is one to which a great deal of attention has been paid for a very long time, but we must admit that our knowledge, especially of the pathology of the condition, has not advanced much beyond that possessed by our predecessors. However, I think we may fairly claim to have made some improvements in the methods of treatment, but much remains to be done before we can approach these cases with confidence. It is now generally admitted that the fits are caused by the action of a toxin which has accumulated in the system of the mother. Some observers have maintained that micro-organisms are the prime factors, but of this no sufficient proof has been advanced. The toxin seems to me to be a waste product from tissue metabolism, but its exact source of origin I shall not attempt to theorise about. It has been maintained that on the death of the fœtus the albumin quickly disappears from the urine. If the toxin causes the albuminuria, as I believe it does, this would point to its origin from the tissue metabolism connected with the development of the fœtus. This statement of the disappearance of the albumin from the urine on the death of the fœtus is one which I dispute, as I have now seen three cases of eclampsia and one of severe albuminuria with macerated fœtuses and in all the albumin was abundant.

If there is a poison in the maternal blood it should affect the fœtus. That it does so has frequently been shown. The fœtus has actually been observed to be convulsed *in utero*, and I have seen several cases of convulsions during the first few days of the infant's life. I have also seen two children born in a perfectly rigid condition as if they had died in a convulsion. Sir James Simpson was the first, I believe, to point out the presence of albumin in the urine of the infant. In every case that I have examined it has been found. I have also found albumin in the urine of several children whose mothers had severe albuminuria but were rescued from eclampsia by prompt treatment. The poison seems to act on the fœtus in much the same way as it does on the mother.

The condition of pregnancy adds a new factor to a woman's economy. Her excretory organs are called upon to deal, not only with the ordinary waste products of her own system but also with those generated in the rapidly-growing uterus and its contents. The rapid development going on must of necessity give rise to a very large amount of waste products which has to be got rid of through the maternal system. A very important question arises—viz., what are the channels through which these waste products are removed?

First we may consider the alimentary channel. Constipation is the rule in pregnancy and markedly so with eclamptic patients. The importance of free purgation has always been recognised in treating the condition. I think one may fairly claim that the elimination of waste products through this channel is somewhat in abeyance. When the presence of albumin in the urine was detected attention was naturally called to the kidneys. The kidneys are undoubtedly out of order, but except in cases of pre-existing nephritis one cannot say that they are seriously diseased. They recover so quickly that one can only say that the derangement is temporary. The condition, I believe, is caused by the toxin acting very much in the same way as a poison like turpentine or cantharidine does. Albumin, and often blood, appears, excretion is lessened, and in some cases there is total suppression of urine.

Within recent years attention has been called to the condition of the liver. There is no doubt that this organ shows considerable degeneration. In many cases the condition is quite apparent to the naked eye. Hæmorrhages under the capsule or into the liver substance are sometimes seen. In a recent case there were numerous hæmorrhages all over the liver under the capsule and the liver substance looked like a compressed rotten sponge. Dr. Carstairs Douglas, the pathologist to the Glasgow Maternity Hospital has furnished me with the following report on the liver condition in four cases.

No. 1.—Liver cells dull, cloudy, and irregular. Indications of necrosis and fatty changes, the cells appearing to contain some amorphous material.

No. 2.—Cells in some parts show much disintegration and contents consist of fine molecular débris. In other parts they are large, cloudy, indistinct, and in many cases the nuclei are very large

No. 3 —Cells are cloudy and dull; in many cases are much separated from one another and many stain badly. Some amorphous structureless material is sometimes found lying between them

No 4.—Cells stain badly, small hæmorrhages are found here and there; there is distinct chronic venous congestion and deposit of pigment. Macroscopic appearance of this liver was very striking.

In three out of four of these cases the liver on section presented a very peculiar brown tint, and brittle, almost honey-combed, consistency. It looked more like ginger-bread than anything else.

Last year one of my patients, after having had 28 fits, was apparently doing well. The albumin had almost entirely disappeared, the kidneys were excreting very freely, and the coma had passed off. On the fifth day the patient relapsed into deep coma and to all appearance was dying. After a third large infusion and a hot pack she began to improve and in two days she again became quite sensible and she recovered. During this second attack of coma the urine was very deeply loaded with bile pigment. If the kidneys had not been acting very freely I feel sure that she would have died. Her liver was evidently considerably deranged. I am firmly convinced that the liver plays an important part in the ridding of the system of the poison, but how it acts I do not know.

In a paper read before the Obstetrical Society of London on April 3rd Dr. Hey Groves maintained that in eclampsia there was an increased coagulability of the blood which gave rise to multiple minute thrombi and thus caused the fits. In pregnancy there is an increase in the coagulability of the blood, but I am not aware of any observations which would confirm Dr. Groves's theory. At present my friend Dr. Carstairs Douglas is carrying out experiments on this very point, but we cannot as yet make any definite statements. We have frequently found ante-mortem clots in the heart, but not specially in eclamptic cases. The minute hæmorrhages referred to by many observers I have always considered an effect and not a cause of the convulsions. During pregnancy a woman's nervous system is in a very unstable condition. It is well known that a sudden shock will often precipitate convulsions. Any prolonged mental strain will predispose to an attack. Last year we had two cases in the wives of soldiers on active service. It seems to me that the convulsions are caused by the direct action of the toxin on the nervous centres which are already in a very unstable condition.

TREATMENT.

If it is admitted that we have a toxic substance in the system the aim of our treatment should surely be either to administer an antidote or else to clear the substance from the system as quickly and as effectually as possible. As we do not know what the substance is we are unable to furnish an antidote. The method of treatment which I have adopted is one which aims at clearing the system of deleterious substances through the natural channels—i.e., through the bowels, the skin, and the kidneys. This seems to me to be more rational than giving drugs to check the fits. If we can remove the cause the fits will soon cease.

If we were able to keep all pregnant women under observation and to treat all cases of albuminuria by milk diet, saline purges, and diuretics, eclampsia would be practically unknown. We have all seen cases rescued from convulsions by prompt treatment. At the end of last year I had two cases under treatment for a month; one in private practice and the other in hospital. In both there was marked œdema and severe headache and [illegible] daily purging with salts [illegible] and diuretics both patients went to full time and were delivered of live children. In one case the child showed albumin in the urine and in the other I did not have an opportunity of examining the urine, but the child suffered from marked œdema of the arms and legs for about 10 days. In that case the salts had evidently purged the fœtus in utero as the liquor amnii was like thin tar.

When the fits have commenced we have no time to spare. Absorption through the alimentary canal is largely in abeyance. To move the bowels very large doses of medicine are necessary. A hypodermic purgative would be most useful, but unfortunately we do not possess one. Croton oil which is so useful in other cases often fails here. I have given five minims without any effect and have twice seen œdema glottidis caused by it. From one to three ounces of Epsom salts given through a stomach-tube unless the patient is quite conscious is the purgative which we now use.

To get a good action of the skin a hot pack or steam bath is most useful. Pilocarpine is too depressing and if there is œdema of the lungs, as there usually is, it may kill the patient.

To act on the kidneys diuretics by the mouth cannot be depended upon. As a rule the patient cannot swallow and her absorptive powers are very low. Dr. Groves and other writers state that there is no diuretic action after the use of normal saline solution. That may be so, but I maintain that there is a diuretic effect obtained when in addition to the normal saline solution acetate of soda or bicarbonate of potash is used. It is perfectly true that it is the second or third day before we have a very large amount of urine excreted. In most of the cases which I have dealt with there has been almost total suppression of urine. After the infusion we, as a rule, have got from two to four or more ounces of urine per hour within the first few hours. Besides flushing the system it dilutes the poison and stimulates the patient. It acts in the same beneficial way as the normal saline solution does in septic cases. I am firmly convinced that it has an effect in controlling the fits. The cases which I have treated without any drugs to control the fits have done quite as well as have those in which the drugs were given. A short time ago I reported a case in the *British Medical Journal* in which the patient had had 22 fits. They were recurring so quickly that she had three during the time the nurses were washing her. After the infusion and hot pack she never had another. As she had been delivered 12 hours it was not a case in which the emptying of the uterus had relieved her.

The infusions are given under the breast or into the abdominal wall. A medium-sized Potain's trocar and cannula with three or four feet of tubing and a funnel is the apparatus which I use. Messrs. Gardner of Edinburgh have fitted up a very convenient one for me. The apparatus should be sterilised and the skin thoroughly cleansed. From one to three pints can be run in under the breast in a few minutes. The puncture should be covered with strapping. Messrs. Burroughs, Wellcome and Co. have made up soloids of acetate and chloride of soda, one drachm in each. One of each should be added to each pint of sterilised water at a temperature of 104° F. as it cools somewhat in the tube With ordinary precautions there is no fear of sepsis. I have given over 200 infusions and have never seen any bad effects. There is considerable tension in the part, but absorption is so quick that this is soon relieved. If necessary the infusion may be repeated several times. As soon as the patient can swallow milk should be freely administered.

As regards controlling the fits I have used all the drugs in general use, both alone and in conjunction with the infusions. Morphia, which has given such good results in the hands of some, has not given me good results. I am perfectly sure that it lessens excretion from the kidneys. My experience is leading me to give up using anti-spasmodics.

For some time I have been considering the advisability of administering oxygen[1] in bad cases and I intend giving it a trial. One would imagine that it ought to do good, and at least it can do no harm.

The obstetrical treatment has varied very much in different hands. The most difficult cases to deal with are those in which labour has not come on. The uterus should be left alone unless the fits continue in rapid succession. If the cervix is at all rigid incision is preferable to forced dilatation. Cæsarean section has been advocated for such cases but the results have been exceedingly bad. By incising the cervix one can deliver as quickly as by Cæsarean section and the shock is very much less. Any bleeding from the cervix would be beneficial to the patient and if it is excessive it can easily be controlled by stitches. If the case is well on in labour delivery should be effected at once. In all operative interference the patient should be kept deeply under chloroform to prevent shock.

Dr. Munro Kerr, who is now my colleague in the Glasgow Maternity Hospital, has collected all the cases of eclampsia treated in the hospital during the last 15 years. Under the old methods of treatment the death-rate was 47 per cent. This is very high, but it must be borne in mind that the majority of the patients are sent in after they have been having convulsions for many hours. It is rare for us to get them within 12 hours of the first fit. Since the infusions were used the death-rate has fallen to 24 per cent.

In a paper which is to appear in the *International Clinics* I have analysed the cases treated by myself up to the end of last year—21 in the hospital and one in private practice. "An analysis of these 22 cases shows that 17 were primiparous and five multiparous. One half of the labours were at full time and in only one case did the fits begin during the puerperium. Thirteen of the children were born dead and 10 alive, there being a case of twins among the latter. Of the dead children two were macerated, three were delivered by craniotomy, and three were too premature to live, so that of the 23 children only five were lost which might possibly have been saved. Of those born alive one was premature and only lived two hours. Of the 22 mothers three died, but one of the deaths was due to a perforating duodenal ulcer after recovery from the eclampsia. Even counting that as a fatal case, three deaths in 22, or 13 64 per cent., is certainly a very low death-rate." The first patient who died showed double pneumonia, multiple ulcers in the stomach, and patches of congestion throughout the intestines. She was treated with morphia and during the 44 hours that she was in the hospital we could get neither the bowels nor the kidneys to act. She only excreted 11½ ounces of urine during the whole time. The second fatal case was the one with the duodenal ulcer. The fœtus was macerated The third patient was delivered by craniotomy. The true conjugate measured three and a half inches As the child was dead craniotomy was done at once. The liver was markedly degenerated. The treatment has lowered the hospital death rate from eclampsia by about 50 per cent. and we have also saved more children than by the older methods. Dr Groves remarked in his paper that all who had tried the method were enthusiastic in its praise. I can endorse this statement as I have frequently heard from men on the subject. Most of the objections raised have been on theoretical grounds, but a little practical experience—and I have had not a little—is worth a vast amount of theory.

Glasgow.

Presentations to Medical Practitioners.—Mr. William Whitworth, M.R.C.S. Eng., L.S.A., was on June 6th presented by the members of the St. Agnes (Cornwall) branch of the St. John Ambulance Association with a silver inkstand suitably inscribed as a mark of appreciation for his services as honorary lecturer.—Mr. Stewart Lockie, M.D. Edin., of Carlisle, has been presented with a testimonial, consisting of a cheque for £300, a silver flower bowl, and an album register of the subscribers, who place on record their appreciation, especially of his eminent services in connexion with the medical charities of the city and district.—On May 31st, at the Town Hall, Huddersfield, Mr. E. G. Annis, medical officer of health of Huddersfield, who is leaving the town to enter on a similar appointment in the metropolitan borough of Greenwich, was presented by the Mayor with a drawing-room lamp bearing the inscription, "To Dr. Annis, from his brother officers, Huddersfield, 1901." It had been subscribed for by the principal officers of the corporation.

---

[1] Since [illegible]

A Mirror
OF
HOSPITAL PRACTICE, BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

ROYAL DEVON AND EXETER HOSPITAL.

A CASE OF OVARIAN TUMOUR COMPLICATED BY TUBERCULOUS PERITONITIS; OPERATION; DEATH FROM TOXÆMIA.

(Under the care of Dr. HENRY DAVY and Mr. ARTHUR C. ROPER.)

THE association of tuberculous peritonitis with an ovarian tumour is certainly rare, and the presence of the peritonitis would be likely greatly to obscure the diagnosis. The most remarkable point about the case recorded below was the sudden death which occurred only a little more than 24 hours after the operation. In the absence of a complete necropsy it is impossible to say what was the cause of death, but the explanation suggested that it was the result of a toxæmia is certainly possible. For the notes of the case we are indebted to Mr. Manning, assistant house surgeon.

A woman, aged 39 years, was admitted into the Royal Devon and Exeter Hospital on March 1st, under the care of Dr. Davy, for extreme distension of the abdomen which had gradually reached its present condition during the previous six months. The patient stated that she had suffered from vomiting and pain in the epigastrium ever since she was 15 years of age. She was fairly well up to six months before admission when she was confined of her seventh child. The confinement was normal and satisfactory and the child was well. Five or six weeks after the confinement, when she was about again, she noticed what she called "indigestion." This troubled her with vomiting about half an hour after taking food. She had gnawing pain in the epigastrium and between her shoulders which the vomiting relieved. She suckled her child for nine weeks when the milk "went away." She noticed that her abdomen was becoming larger, but beyond the gnawing pain and vomiting, which continued up to admission, she saw nothing else amiss with herself. She did not notice that she lost flesh till a month ago, since when she had wasted rapidly. She had always been thin. She had had no previous illness. Her parents were alive and in good health. Four of her sisters were living; one died a year ago from tuberculosis at the age of 42 years. Her two brothers were both alive and well.

On admission the abdomen was enormously distended and fluid thrill was readily obtained. The chest was extremely emaciated and there were signs of phthisis in both lungs. The heart was normal with the exception of an accentuated pulmonary second sound. The urine was normal. The arteries were thickened. Paracentesis was at once performed and seven pints and two ounces of blood-stained fluid were withdrawn. After the operation it was possible to feel a nodular, freely moveable mass in the abdomen, just below and to the right side of the umbilicus. This mass seemed to be of about the size of an orange and loosely connected with other smaller lumps. On March 2nd the patient had been more comfortable since the paracentesis. The pulse was regular in force and frequency and of high tension. On examination of the abdomen large veins were seen coursing over it. The direction of the stream was upwards. There was still a fluid thrill and there was dulness in the flanks. The nodule to the right of the umbilicus was very tender and was not fixed below, but seemed to have some connexion with the pelvic viscera by a slender stalk or adhesion.

Mr. Roper was asked to see the case and advised laparotomy. On March 13th the abdomen was opened by the usual incision and a quantity of blood-stained ascitic fluid escaped. A large tumour then became apparent filling the abdomen and pelvis. Some organised and vascular parietal adhesions being dealt with it was found that the tumour was chiefly attached to the omentum which seemed to be incorporated with it. The omentum was red and fleshy with no trace of fat or of its ordinary appearance. The omentum was ligatured in three or four loops and the tumour was cut away from it. The only other adhesion was to the abdominal wall on the right side just above Poupart's ligament, and this peeled off easily. The tumour, which was apparently a multilocular ovarian cyst, but with fluid too viscid to flow through any trocar, was of about the size of a Rugby football, and was delivered through an enlarged incision. The ovaries were looked for, but only the left one was found. The whole peritoneum, both visceral and parietal, was studded with miliary tubercles. The abdomen was freely flushed with boiled water, a considerable quantity of which was left in, and the wound was closed with a rubber drain at the lower end. The patient bore the operation well.

On the morning of March 14th the patient had been sick only once since the operation. Her pulse was good and her general condition was most satisfactory. Owing to the escape of a considerable quantity of the fluid left in the abdomen at the operation, the dressings had become wet and were changed. The wound was quite satisfactory. The drainage-tube was removed. At 2 P.M. the patient was suddenly taken worse after an action of the bowels; she complained of severe abdominal pain and of a feeling of faintness. The pulse was small and 160. A considerable quantity of the blood-stained fluid again escaped from the wound and saturated the bedclothes. The temperature was 100° F. She was transfused with saline solution, and strychnine and digitalin were injected hypodermically, but she rapidly sank and died at 5.30 P.M.

A post-mortem examination was not permitted but the abdomen was examined through the wound. There was a considerable amount of blood-stained fluid, much of which was doubtless water left after the operation. The ligatures were all secure though the distal portions of the ligatured omentum were covered with thin blood-clot. This was sufficiently accounted for by oozing from the fleshy substance of the omentum distal to the ligature. The universal miliary tubercles were corroborated and there were no adhesions of the intestine of importance. What was taken to be the right ovary (which it will be remembered could not be discovered at the operation) was found deeply imbedded and adherent to the bottom of the right pelvic fossa. It was so adherent that it was torn in getting it to the surface, but there was no doubt in the minds of any of the four surgeons present at the examination that it was the ovary. Unfortunately, feeling no doubt about the matter, it was not preserved. The adhesion to the abdominal wall over Poupart's ligament was readily discovered.

Remarks by Mr. ROPER.—This case presents many points of interest. In the first place, the large tumour was not suspected until after the paracentesis which was urgently needed and performed immediately after the patient's admission to the hospital. Then the diagnosis when I saw her a few days later was quite doubtful, lying between malignant disease of the omentum with ascites from irritation or obstruction and tuberculous peritonitis with an ovarian cyst. Had it not been for the signs of phthisis in the chest I should have favoured the former diagnosis inasmuch as the tumour was evidently attached above, and, with the exception of the cord-like process referred to in Mr. Manning's careful notes, was apparently (and, as subsequently appeared, really) free below. Vaginal examination yielded little information, as the fluid obscured the tumour to the touch. The nodular feel of the tumour was more suggestive of malignant disease than of ovarian. The suggestion which the notes convey of separate masses is accurate as a description of the sense conveyed by touch, but must not be read as an opinion, as a large tumour was diagnosed before operation, though the actual size was greater than we expected to find. Secondly, the association of ovarian disease and tuberculous peritonitis is, I believe, rare. Thirdly, the tumour was to all appearances ovarian, a multilocular cyst, but it had no ovarian pedicle and was incorporated with the omentum from which it was undoubtedly nourished. As we could not understand how a cystic ovary, and one of evidently recent growth, could be growing from the omentum we sent the tumour to the Clinical Research Association with a note explaining the circumstances. I regret that I cannot find the note which Mr. J. H. Targett kindly wrote to me, but it was absolutely positive as to the tumour being ovarian. Fourthly, we imagined that we discovered the missing ovary at the examination after death and if it was not an ovary I do not know what it could have been that we found. *Fifthly*, the patient's death. What caused it? I have never seen anyone better than she was on the morning after the operation and she continued so until dinner-time. I was sent for at about 3 P.M. as she was thought to be dying from hæmorrhage. Dying she certainly was, but neither her pulse nor her aspect suggested hæmorrhage to my mind and moreover the temperature was rising. I can think of no other explanation than an acute toxæmia, and Mr. Targett corroborated this by saying that he knew of other cases of death from acute toxæmia after operation for tuberculous peritonitis.

I recall a case which I think resembles this one, in which I went into the country to operate for intestinal obstruction on a healthy-looking girl, who, in spite of four or five days' vomiting and obstruction, looked well and had a good pulse of not much over 70. On opening the abdomen we were surprised to find a tuberculous peritonitis with a recent adhesion obstructing the ileum close to the cæcum. The adhesion was easily dealt with and the abdomen was closed. The operation was simple and brief and I was much surprised to hear that she had suddenly collapsed and died the same night. I thought at the time that she must have died from poisoning by some fæcal toxins formed in the paralysed intestine and I regretted that I had not made a temporary artificial anus. I am now inclined to class it with the present case and to think that the toxin which killed her was formed in the tuberculous peritoneum.

GLASGOW WESTERN INFIRMARY.

A CASE OF STRANGULATED HERNIA; ENTERECTOMY.

(Under the care of Dr. DUNCAN MACARTNEY.)

THE expediency of primary enterectomy in cases of gangrene of strangulated intestine must depend chiefly on the condition of the patient. If his general state is such as to hold out any reasonable hope of his not succumbing under the increase in the length of the operation, primary resection is distinctly preferable, as the patient is spared the danger of the second operation and the duration of confinement to bed is materially shortened.

A youth, aged 19 years, was admitted into Ward 11 of the Glasgow Western Infirmary on April 21st, 1901, suffering from symptoms of strangulated hernia. He had been quite well till the night of the 17th when he felt pain in the abdomen. This pain gradually increased and became very marked, especially in the umbilical region. On the same day vomiting began and continued until the evening of the 20th. Nothing, solid or fluid, could be kept down. A medical man was at this period called in and he advised instant removal to an infirmary. This was not complied with. Early on the morning of the 21st chloroform was given and taxis was tried but without success. The patient then consented to removal and was taken to the Western Infirmary.

On admission the patient was found to be suffering very acute pain. Since the age of five years he had been the subject of an inguinal hernia on the right side. On six different occasions that he could recall he had had trouble from the swelling, the last being about a year ago. The abdomen was distended but not markedly. The upper part of the right side of the scrotum was much swollen and the scrotum on that side extended much beyond the normal. The skin was very red over the scrotum and was painful to the touch. The tumour was very tense and the percussion note was dull. There had been of late no vomiting; the pulse was good and the patient was not collapsed. The pupils were rather contracted; he had been having morphia suppositories. The heart, lungs, and urine were normal.

At 5.30 P.M. on April 21st Dr. D. Macartney, who was acting for Dr. G. T. Beatson, operated. Chloroform was given by Dr. E. Gillespie and Dr. E. Cathcart assisted at the operation. The bowel was found to be very black but still smooth and shining. A considerable quantity of blood-stained fluid escaped from the sac. The constriction was very tight. On pulling down the bowel it was found to be ruptured at the site of strangulation. The blackened portion of the bowel, about seven inches, was removed; the mesentery was left, the incision through it being along the upper margin of the bowel; the ends were sutured direct with three sets of sutures, mucous membrane to mucous membrane, muscular and serous coats to muscular and serous coats, and a Lembert's suture through the serous coat alone over both. The bowel was put back into the abdomen and the wound was closed except just above the site of the sutured bowel. This slightly open portion was stuffed lightly with iodoform gauze and the ordinary dressings were applied. The patient had some difficulty with his breathing while he was under the anæsthetic, but on the whole he took chloroform well. Recovery was uneventful except that for a few days the temperature hardly reached normal. He had enemata of soap-and-water on the third and fourth days, and about the sixth he developed a bright rash all over his body, which Dr. Macartney attributed to the enemata. His temperature rose on this occasion but never after. He steadily improved and was dismissed on May 24th well. The wound healed without pus.

Remarks by DR. MACARTNEY.—The above report is by Dr. Gillespie, Dr. Beatson's house surgeon, to whom I am indebted for it, as also for his prompt action after receiving the case and for his careful administration of chloroform at the operation. Dr. Cathcart was my more immediate assistant in the operation and to him I feel largely indebted. Some points naturally escaped the reporter's notice and these I would supplement. It was a large hernia, and when the sac was cut through the odour was very suspicious, being slightly fæcal; the colour of the discharge, too, was almost black, which is only found in very advanced cases of strangulated hernia. In addition to bowel there was a considerable mass of omentum which was firmly attached to the bottom of the sac within the scrotum. This was ligatured in two places and incised between and the mass was left in the scrotum, where it has since shrivelled up. The stricture was very tight, more like what is found in femoral hernia by Gimbernat's ligament, and this being relieved the gangrenous portion of the bowel was found on the inner side, where this sharp edge had been in contact. In removing the bowel I used no mechanical means whatever at first. The fingers of my assistant were, however, unable to control completely the upper end of the bowel and I used Makins's clamps. The mucous membrane was united to mucous membrane with a catgut suture, continuous for four or five stitches, then tying the bight to the thread and continuing for four or five more stitches, again to interrupt, and so on. It is surprising after the mucous membranes are united how very easily the remaining two rows of sutures are inserted. The parts seem to fall in quite naturally. When dealing with the mesentery it was cut straight across and bleeding points were ligatured. No sufficient reason exists for cutting wedge-shaped segments out of the mesentery. After the bowel was united the redundant mesentery was folded on itself and fixed so by a few interrupted sutures, and continuity was established between the newly approximated portions of mesentery and the joined bowel. The bowel had given way at the point of greatest constriction; but on cutting open the removed bowel from end to end we found the mucous membrane of the most distal portion almost gangrenous. That there are two factors to take into account in the death of the bowel is evident, first, the direct pressure as caused by the strangulating agent, and secondly, the interference with the blood-supply which shows, seemingly, first in the mucous membrane at the point of greatest distension.

The operation of enterectomy of itself is by no means a very serious operation, but yet looking over the statistics the number of enterectomies that are successful is comparatively small. In strangulated hernia the number is particularly small and the reason is not far to seek. Why so many resections of bowel fail is simply that in the vast majority of cases wherein one meets with gangrenous bowel resection with or without the aid of buttons or plates is entirely a mistake. In the ordinary case, by the time that the strangulated bowel has become gangrenous, so much absorption of fœtid, feculent material has gone on that the patient is virtually dying, and to keep him on the operating table during the time which is necessary to unite the ends of the bowel either by plain suturing or by mechanical means, to shorten the process, takes from him the little chance that he has remaining. That is the common case and in such it has been my practice to open the gangrenous bowel, empty it of as much of its contents as possible, and sew the margins of the bowel to the sides of the wound. The artificial anus can be dealt with later. But the exceptional cases are such as the one reported, where the patient still has a good pulse and where not too many days have elapsed since the strangulation, and particularly where youth is on his side. Under such conditions the surgeon may hope for a successful result.

It might be noted that in cutting away the diseased bowel the incision was made obliquely (about 20° to the axis of the tube), on the principle that, in view of after contraction effects, an ellipse the minor axis of which is that of the bowel contains more square area than a transverse section.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The Prognosis and Treatment of Cirrhotic Ascites with Special Reference to the Treatment by Laparotomy.—Metabolism in Phthisis.

A MEETING of this society was held on June 11th, Dr. F. W. PAVY, the President, being in the chair.

A letter was read from His Majesty the King according his patronage to the Royal Medical and Chirurgical Society.

The PRESIDENT referred to the reception by the King of a deputation from the Royal Medical and Chirurgical Society for the purpose of presenting an address of condolence on the death of Her late Majesty Queen Victoria. The President also reported that the roll of the Royal Medical and Chirurgical Society had been signed by the King. It had previously been signed also by Queen Victoria and William IV.

Dr. H. CAMPBELL THOMSON made a communication on the Prognosis and Treatment of cases of Ascites occurring in the course of Alcoholic Cirrhosis of the Liver with special reference to the Treatment by Laparotomy. There was, he said, at the present time a considerable diversity of opinion regarding the prognosis of cirrhosis of the liver after the appearance of ascites. He had endeavoured to collect such information from the works of others and from his own experience, and this he believed would establish the following points—(1) That ascites arising during the course of a case of alcoholic cirrhosis of the liver might be due either (*a*) directly to the cirrhosis, or (*b*) it might depend upon some condition co-existing with the cirrhosis, such as chronic peritonitis or perihepatitis. (2) That ascites when directly dependent upon the cirrhosis was almost always a fatal condition, while, on the other hand, ascites associated with cirrhosis, but not directly dependent upon it, might often be temporarily relieved and occasionally permanently cured. (3) That, under these circumstances laparotomy performed on cases of cirrhosis of the liver with ascites was only likely to be successful in those cases in which the ascites was an associated condition of the cirrhosis and not directly dependent upon it, and that if this were so it would be misleading to look upon the operation as being one for the cure of cirrhosis of the liver. It should rather be looked upon as a means for the relief of cases of ascites, some of which, although occurring in the course of cirrhosis of the liver, were not directly dependent upon it and which were amenable to treatment. (4) That, taking a series of cases diagnosed during life as "cirrhosis of the liver with ascites," there was not sufficient evidence to show that the operation possessed any definite superiority over the more simple method of tapping. The observations of various authorities on the subject were quoted, and it was shown that whereas a patient suffering from ascites directly due to cirrhosis of the liver rarely lived long enough to survive more than one tapping (the average duration of life, according to Dr. Hale White, after the enlargement of the abdomen was first noticed being only eight weeks), patients suffering from ascites due to some associated condition might survive repeated tappings and even apparently recover. The clinical course of cirrhosis of the liver might, Dr. Thomson believed, be summed up in the following way. Cases might exist for years without any ascites, or, indeed, without any definite symptoms, but during this period ascites was liable to arise from some associated condition, the most common being chronic peritonitis and perihepatitis. Ascites arising from this cause might be frequently relieved, and occasionally it eventually entirely disappeared, and the patient then returned to his former state of latent cirrhosis without any ascites. As time went on the cirrhosis progressed until frequently the cirrhosis itself gave rise to ascites, for which tapping was of no avail, and the patient succumbed a few weeks after its onset. There need not be, and frequently was not, any long interval between the first and last tapping, as the associated ascites often merged imperceptibly into that directly dependent upon the cirrhosis. Turning to the question of treatment directed to relieve the ascites, this could in most cases, Dr. Thomson believed, only be effectually done by tapping. Formerly it was advised to put off tapping as late as possible, whereas now it was generally advised to tap early. The more radical operation recently introduced by Morison and Rutherford[1] of opening the abdomen and promoting adhesions between the peritoneum, omentum, and parietes was then considered. A table of all the recorded cases was submitted and analysed. If the operation were to survive it must be shown that it possessed some distinct superiority over tapping since, notwithstanding the slight risk of abdominal explorations, it was in every way more formidable than tapping. The cases best suited for operation were those in which the ascites was only an associated condition of the cirrhosis; the presence of cirrhosis was not necessarily a contra-indication, but the further advanced the cirrhosis the less chance must there be of the operation being successful. If there was good reason to believe that active symptoms of cirrhosis had supervened and that the ascites was directly dependent upon the cirrhosis the operation should not be undertaken. There was, of course, often great difficulty in deciding whether the cirrhosis was still latent, and to this end the most careful attention must be given to the general condition of the patient. Errors would be further eliminated by only selecting such cases for operation which had been tapped several times.—Dr. F. PARKES WEBER mentioned that the specific gravity of the fluid withdrawn by paracentesis of the abdomen was often not ascertained, but that it ought always to be, and in regard to the point now under consideration it might furnish very serviceable information. If the specific gravity were high (say, up to 1020 or nearly so) there was probably some inflammation present. In a case of cirrhosis which he (Dr. Weber) had observed the abdomen had been twice tapped and the specific gravity of the fluid withdrawn was noted as 1020. No further tapping was required. The post-mortem examination, six years later, proved that besides cirrhosis of the liver there had been perihepatitis and perisplenitis. In such cases, if a laparotomy were performed, the localised inflammation between the liver and diaphragm or about the spleen might have escaped notice and the cure of the ascites would then be set down as due to the operation. When peritoneal effusion occurred early in cases of cirrhosis the liver generally showed obvious enlargement, and the effusion was as often induced by a non-suppurative perisplenitis as by any peritonitis localised about the liver. Temporary cardiac weakness should likewise be mentioned as a possible cause of temporary ascites in cases of hepatic cirrhosis. Like Dr. Campbell Thomson and some others, Dr. Weber thought that laparotomy was not likely to give good results excepting in cases in which the liver was large, or at all events by clinical examination appeared to be large. In many of these cases an equally good result would be obtained by a few tappings, sometimes followed by the application of pressure to the abdomen, as recommended by Dr. Alexander Morison for ascites due to various causes.—Dr. HALE WHITE referred to cases of cirrhosis of the liver with ascites which he had recorded 10 years before, and he was glad to find that Dr. Campbell Thomson had arrived at the same conclusions. All the cases he (Dr. White) had since seen tended to support these conclusions. Referring to the pathology of cirrhotic ascites, a little thought showed that it was not due merely to pressure on the venous radicals of the portal vein, and ligature of that vein did not produce ascites. Cirrhosis of the liver might be compared to granular kidney. Both lesions were only part of a general change, as witnessed by the onset of swelling of the feet in some cases before the ascites, and the termination by coma in both diseases. The ascites was probably due mostly to some associated peritonitis. When investigating a number of cases which proved, post mortem, to have cirrhosis of the liver he had found that quite half of them had never had any symptoms attributable to that condition during life. It was the same in granular kidney.—Dr. CAMPBELL THOMSON, in replying, dwelt on the early occurrence of swelling of the feet before the abdominal swelling as a valuable aid to the diagnosis of cirrhosis of the liver.

---

[1] Brit. Med. Jour., Sept. 19th, 1896.

Dr. FRANCIS W. GOODBODY, Dr. NOEL D. BARDSWELL, and Mr. J. E. CHAPMAN made a communication on Metabolism in Phthisis Owing to the different opinions held by various observers as to the efficiency of treating tuberculous diseases, and more especially pulmonary tuberculosis, by over-feeding, it had occurred to them to carry out some researches as to the effect of increased feeding on the metabolism of patients suffering from this disease. For this purpose cases of the disease of varying severity were selected, and after their metabolism on the ordinary hospital diet had been determined the diet was increased in various ways in order to ascertain what was the maximum they could take without causing too great a strain on the organism. Special attention was devoted to determining what number of calories per kilogramme body weight was the most suitable, as this was the easiest way of determining a suitable diet Having ascertained the highest-known weight of the patient a calculation was made as to what number of calories he would require in a healthy condition. From this it was comparatively easy to order a diet containing a sufficient number of calories to ensure that a system of over-feeding was carried out. It was difficult to see what benefit a patient could obtain from a system of "cramming," as the strain on the organism must be very excessive The researches were made at the Brompton Hospital upon cases selected by Dr. Kingston Fowler. The estimations were made at the laboratory of University College. The first series of experiments were designed to ascertain the normal metabolism of certain healthy individuals who were placed on diets containing from 60 to 80 calories per kilogramme body weight. These excessive diets were taken with great difficulty, and the condition of the patients altered considerably for the worse, although an increase in weight (from two to three kilogrammes) was noticed. For some days after the termination of the experiment they suffered considerably from mucous colitis and did not regain their normal condition for from two to three weeks In tuberculous diseases, in contra distinction to the normal individuals, patients suffering from pulmonary tuberculosis stood a markedly increased diet very well and did not suffer nearly so much from anorexia or dyspepsia. The number of calories per kilogramme body weight which gave the best results was between 50 and 70, any increase above the latter number being quickly followed by symptoms of inability to take the diet, and in some cases vomiting occurred. When more than 70 calories per kilogramme body weight were taken there was a decided increase in weight during the period, but in no case was an adult patient so well at the termination of the period. In the cases suffering from the more advanced stages of the disease more satisfactory results were obtained on diets containing about 70 calories per kilogramme, as on these diets there was a considerable retention of nitrogen in the body together with a comparatively small tax on the digestive organs. In cases which were not so advanced a diet containing about 60 calories per kilogramme gave better results as regards the absorption and retention of nitrogen than larger ones. The average quantity of urine excreted was low in comparison with the amount of fluid taken, even when there were no noticeable night-sweats, and the quantity did not increase proportionately to the increase in the quantity of fluids. In comparison with the quantity of nitrogen given in the food the excretion of total nitrogen in the urine was very low in the worst cases and increased markedly as the condition of the lesions improved. The proportion of this substance excreted in the form of urea was much below the normal in bad cases; it also fell when very large diets were given. Notwithstanding the fact that a considerable quantity of proteid was given in the diet the excretion of uric acid did not increase markedly except in cases complicated by continuous fever. On attempting to "cram" the quantity of ammonia increased considerably, pointing to diminished alkalinity of the blood. As had already been noted by Russian observers, the authors of the paper found that the quantity of phosphoric acid excreted in this disease was very small, in some cases being less than one gramme per diem, while in cases with a considerable degree of arrest the excretion rose to 2 5 and 3 grammes.' The rate of absorption of nitrogen was, on the whole, below the normal, the more so the greater the severity of the disease. On increasing the amount of proteid given there was a lessened absorption of nitrogen per cent., so that on large diets the waste of food was very considerable. The average rate of absorption of fats was extremely good in all the cases, averaging about 98 per cent, thus confirming the clinical observation that fat-containing foods were very well borne in pulmonary tuberculosis. In the most advanced cases of the disease under observation the most suitable diet was found to consist of 129 87 grammes proteids, 135 05 grammes fats, and 225 56 grammes carbohydrates. The conclusions arrived at were: 1. Both clinically and experimentally tuberculous patients showed very satisfactory results on their diet being increased slightly above the original, and it was evident that the state of the appetite gave too low an estimate of the requirements, as the original diets were of their own selection as regards quantity. 2. Comparatively large diets were well borne by those who were much below their normal weights, but not so well supported by—nor were such good results obtained in—patients up to their normal weight and with arrested disease. 3 In all cases very large diets gave unsatisfactory results, as the gain in weight was at the expense of the general health, as indicated by the failure of appetite, marked digestive disturbance, and increased intestinal putrefaction. 4. Moderately large diets gave the best results, and could probably have been continued for an indefinite period 5. The assimilation and absorption of nitrogen was good on the whole, even in cases with high pyrexia The absorption of fats was excellent, although very large quantities were given. 6. The patients complained least of discomfort on the diets which gave the best results experimentally, and the onset of severe dyspeptic trouble coincided with deterioration in the experimental results. 7. In cases in which the disease was becoming quiescent and the patient was approaching his normal weight it was advisable to diminish the quantity of food; but even at this period a more substantial diet was necessary than when in health.—Dr. BARDSWELL remarked that moderate quantities of food gave the best results. The diet in any given case was best fixed by considering the amount of weight the patient was below his maximum and the range of the pyrexia as representing the activity of the disease Further, if a patient put on one pound per week the lungs did better than a more rapid increase He was much opposed to "cramming"—Mr. CHAPMAN remarked that the diets as shown on the charts exhibited had been calculated without certain extras The diets were worked out at 50 calories per kilogramme —The PRESIDENT complimented the authors on their communication and remarked on the value of their researches in the sanatorium treatment of phthisis as being based upon a rational chemical foundation.—Dr. HALE WHITE had made some similar observations on a patient under the Weir Mitchell treatment and in the main had come to the same conclusions The patient had taken very large quantities of food. The fat had all been absorbed excepting about 3 or 4 per cent He had never succeeded in attaining a nitrogenous equilibrium and suggested, in order to account for the nitrogenous deficit, that possibly it was stored up in the tissues in some form other than proteid. He remarked on the laborious nature of such investigations —Dr HORTON SMITH asked if it was possible to give some simpler rules for the construction of a dietary.—Professor VAUGHAN HARLEY remarked on the laborious nature of such inquiries. They opened a new domain in medicine. The nitrogenous deficit was partly due, perhaps, to "cheating" by the patient A deficit of three grammes was well within experimental error. Too rapid an increase caused considerable upset and what was to be aimed at was a steady increase in weight. The number of calories per kilogramme could be based on the difference between the present and the highest weight of the individual —Dr. GOODBODY, in reply, referring to the difficulty of obtaining nitrogenous equilibrium, said that the six patients under observation during four weeks gave 22 different periods for investigation, and of these they had succeeded in obtaining nitrogenous equilibrium in three instances. There was no easy means of obtaining accurate information, though the estimation of urea gave a certain amount of information. The best method was to estimate the total nitrogen in the urine and fæces.

OBSTETRICAL SOCIETY OF LONDON.

Fibroid Tumours complicating Pregnancy and Labour.—Exhibition of Specimens.

A MEETING of this society was held on June 5th, at 20, Hanover-square, W., Dr. PETER HORROCKS, the President, being in the chair.

Dr. ARCHIBALD DONALD read a paper on Fibroid Tumours complicating Pregnancy and Labour. He said that he had come to the conclusion that in the majority of instances neither pregnancy nor labour was seriously influenced by these tumours, but that in a small proportion of cases the danger to mother and child was greatly increased. The risks during pregnancy might be summed up as follows: (1) rapid increase in size of the tumour, causing severe pain and great distress; (2) incarceration of the tumour in the pelvis; (3) serious pressure on the bladder; (4) degeneration of the tumour through diminished nutrition; (5) excessive rotation of the pregnant uterus; and (6) abortion or premature labour as a result of pressure or of submucous development of the fibroid. Abortion or labour might be complicated (1) by obstruction of the natural passages; (2) by malpresentations; (3) by retention of the placenta or membranes; and (4) by extrusion of the tumour during labour. During the puerperium the presence of a uterine fibroid rendered septic infection more likely. The treatment of this complication of pregnancy and labour was then discussed. Two main groups of cases were recognised: (1) those in which pregnancy was allowed to take its course until full term or until the child was viable; and (2) those in which it was necessary to interfere in the earlier months. In the great majority of cases it was better to leave matters alone until term. If the tumour was located in the pelvis the treatment in each case must be settled by a careful examination—if necessary under an anæsthetic. Cæsarean section was preferable to delivery by the natural passages if the latter involved the employment of much force. He gave notes of a case in which there was rapid enlargement of the fibroid during the first three months of pregnancy but in which the condition of the patient was fairly good and in which the pregnancy was allowed to go on until nearly term. The occurrence of albuminuria and rapid deterioration in the patient's health then rendered interference necessary. It was ascertained on examination under an anæsthetic that delivery by the natural passages would be attended with great difficulty. Cæsarean section and subsequent hysterectomy were successfully performed. He then discussed the treatment in the earlier months, when interference was necessary, under the heads of (1) induction of abortion; (2) hysterectomy; and (3) myomectomy. In Dr. Donald's opinion the induction of abortion ought to be abandoned. Notes were given of a case in which the patient was admitted to hospital on account of a rapidly growing fibroid. Spontaneous abortion occurred, but the placenta was retained and had to be removed artificially. In spite of the most careful aseptic precautions septic infection occurred and a serious illness resulted. Some months later the tumour was removed by abdominal myomectomy. Dr. Donald described three cases of abdominal hysterectomy for rapidly growing fibroids in the early months of pregnancy, but he advocated a preliminary myomectomy whenever it was possible, as by this measure the life of the child might be saved. In all cases of subperitoneal pedunculated fibroids the tumour ought to be removed during pregnancy. When the tumour was more sessile and operation was required in the earlier months, it was best to enucleate the tumour and stitch up the gap in the uterine wall. If, however, the raw surface was too extensive, or if it was close to the uterine cavity, or if hæmorrhage was difficult to control, the operation ought to be terminated by hysterectomy.

Mr. ALBAN DORAN spoke of his own case of pregnant fibroid uterus successfully removed at the fifth month, reported in THE LANCET of March 2nd, p. 621, and he exhibited the specimen. There was a large fibroid outgrowth on the fundus which, as is usually the case, could in itself have hardly prejudiced either pregnancy or labour. There was a second large outgrowth springing from the posterior aspect of the lower segment and incarcerated in the pelvis which pressed the cervix against the pubes. Emptying the uterus through the vagina was impossible, and on account of the severity of the pressure symptoms it was not advisable to wait till term and then perform Cæsarean section. Myomectomy was impracticable on account of the position of the fibroid, and in this case an attempt to push the fibroid out of the pelvis would have involved great risk of rupture of the soft uterus which would have been squeezed between the two hard tumours. There was no course left but retro-peritoneal hysterectomy which proved very satisfactory.

Dr. WILLIAM DUNCAN could not agree with Dr. Donald that pregnancy and labour are only seriously influenced in a small proportion of cases by the presence of fibroids. He mentioned cases in which he had met with serious obstruction in the pelvis even after abortion had been induced, also rupture of the uterus during pregnancy with fatal result, and he had a case some years back under his care in the Middlesex Hospital where the patient was waiting until full term had arrived in order that he might perform Cæsarean section but who died from cerebral apoplexy whilst resting quietly in bed. With regard to subperitoneal fibroids he could not agree with Dr. Donald that "in all cases they should be removed during pregnancy," for unless a fibroid of this kind were impacted in the pelvis it should be left severely alone and the pregnancy and labour would proceed naturally. With regard to interstitial or submucous fibroids the nearer the cervix they were situated the greater the danger; and in these cases he thought the best interests of the mother were provided for by emptying the uterus if the pregnancy were in the early months. If, however, the tumour obstructed delivery it was better to perform Cæsarean section and then remove the uterus and the fibroid than to attempt delivery by craniotomy.

Dr. G. E. HERMAN said that many valuable papers had been written on pregnancy with fibroids. Dr. Donald's paper was the first in which pregnancy with fibroids had been adequately treated in the light of modern surgery. In all his main points he agreed with Dr. Donald. He was not convinced of the effect of fibroids in causing abortion. Dr. Donald had quoted figures which were supposed to show that abortion was frequent—those of Kelly who put the frequency at 25 per cent. and those of Lefour, which came to about 20 per cent. But 20 per cent. was about the normal frequency of abortions to labours at term. That fibroids often caused premature labour he thought was beyond doubt. The danger of pregnancy with fibroids depended more upon the situation of the growth than upon anything else. Fibroids situated above the lower segment of the uterus, unless very large, commonly caused no trouble in pregnancy or labour. He agreed with the preceding speaker that it was not necessary to remove every small subperitoneal fibroid that co-existed with pregnancy. If a fibroid or fibroids were situated in the lower segment of the uterus delivery might be obstructed by them. In such cases he (Dr. Herman) thought that the essential condition for the best treatment was to decide before labour, or quite early in labour, whether or not the tumour would obstruct delivery, and if it was judged that delivery would be obstructed to perform Cæsarean section or myomectomy, whichever seemed best, before the patient had been exhausted by prolonged labour. In deciding between myomectomy and hysterectomy he thought that in a patient so old that further pregnancy was not likely, hysterectomy was to be preferred as being safer than myomectomy.

After some remarks by Dr. HENRY BRIGGS,

Mr. J. BLAND SUTTON observed that next to pregnancy it seemed probable that "fibroids" were one of the commonest conditions to which a woman's uterus was liable, and it was equally certain that fibroids and pregnancy often co-existed and that the two conditions had no baneful effect on each other. It was also equally certain that occasionally the co-existence of fibroids and pregnancy was fraught with great danger to the life of the mother, and the treatment of these cases had often been a matter of grave concern to those who undertook to superintend delivery. Mr. Bland-Sutton wished particularly to draw attention to the fact that in many instances in which hysterectomy had been performed in the early months of pregnancy for this complication the operation had been undertaken on the ground that the fibroids had "recently been growing quickly," but when the uterus had been removed the operator found that the presumed rapid growth was due to the associated pregnancy. He was interested in the successful enucleation of fibroids from the pregnant uterus. In one case in which he had found it necessary to perform this operation at the fourth month the uterus was quite smooth and no other tumours were seen or felt. The pregnancy went to term and a fine boy was born without difficulty, but the uterus was tuberose with fibroids, and to add to the disappointment the child was found to have an imperforate pharynx. Although abdominal enucleation of fibroids could be performed with less risk than hysterectomy it was very rarely necessary in pregnancy and very unsatisfactory, as in a large proportion of cases other fibroids arose in the uterus. Thirty years ago Sir Spencer Wells startled the obstetrical world by urging that unilateral ovariotomy was practicable and justifiable during pregnancy. About 15 years later it was proved that double ovariotomy could be successfully performed during pregnancy and without disturbing the fœtus, and in 1901 the society received with equanimity the fact that a fibroid might be enucleated from the wall of a gravid uterus without interference with the pregnancy, the mother going safely through her confinement and gaining a vigorous child. Surely this might be regarded as a triumph of modern surgery.

Dr. A. H. N. LEWERS said that when a fibroid tumour complicated pregnancy much depended on the exact situation of the tumour. In cases like that exemplified by Mr. Doran's specimen where the tumour was situated low down it offered an insuperable obstacle to the passage of the child and necessitated Cæsarean section. In cases, also, where a patient already the subject of a large uterine fibroid became pregnant, even though the fibroid was situated in the upper part of the uterus, abdominal hysterectomy might be needed in the early months on account of the distress caused by the extra enlargement of the uterus. Such cases were, however, in his experience quite exceptional. He had seen a considerable number of cases of pregnancy complicated by fibroid tumours in which the patients passed through pregnancy, labour, and the puerperium normally. In Dr. Lewers's opinion it would be a pity if the impression were to become general that when fibroid tumours complicated pregnancy abdominal hysterectomy or myomectomy was generally required

Dr. HERBERT SPENCER agreed with most of the recommendations in the paper. He was especially glad to hear that Dr. Donald condemned the induction of abortion. In cases where fibroids occupied the cervix or the lower segment of the uterus that operation was very dangerous owing to the rigidity of the tissues and the difficulty or impossibility of completely emptying the uterus. Though he had never performed the operation himself he had known it to terminate fatally in skilful hands when every precaution was adopted, and he thought the operation should not be performed. He agreed with Dr. Lewers in advocating a more conservative treatment of many of these cases. Fibroids implicating pregnancy were fairly common. At University College Hospital, where about 2500 cases of labour were attended annually, he had seen a considerable number of cases of pregnancy and labour complicated with fibroid tumours, but he had never met with a death from the complication and had only once had to perform Cæsarean section and to remove the uterus. He had seen cases in which it was expected that fibroids in the lower segment would interfere with the passage of the child, but when labour set in the tumours were drawn up out of the way and delivery was safely effected. Dr. Spencer was of opinion that hysterectomy in the early months of pregnancy was far too frequently performed. He would treat the severe pain which was often present by the usual medicinal remedies and would permit a living child to be born either naturally or by operation. He thought that the statement that all *subperitoneal pedunculated fibroids* ought to be removed during pregnancy was too absolute, and he wished (though this remark did not apply to Dr. Donald's paper) to enter an emphatic protest against the removal on account of pain of small sessile corporeal fibroids by enucleation through the abdomen during pregnancy, an operation which was by no means free from immediate and remote risks, which sometimes necessitated hysterectomy on account of hæmorrhage, and which probably left in the uterus growths which might require a subsequent radical operation.

Mr. A. C. BUTLER-SMYTHE quite agreed with the remarks made by Dr. Spencer and was glad to join in the protest against indiscriminate operating. Personally he was much obliged to Dr. Donald for teaching him that large myomata could be safely removed from the pregnant uterus, but he could state that in his experience there were instances where living children were delivered without resorting to abdominal operations. He recognised the necessity for operating in the specimens shown, but thought that there were many cases in which the fibroid might well be left alone.

The PRESIDENT quite disagreed with those who alleged that fibroid tumours of the uterus did not cause miscarriage. It was true that a woman might have fibroids and not miscarry. He had known a patient to be delivered of a full-term child whilst suffering from a sub-peritoneal fibroid as big as the pregnant uterus at full term. It was in the subperitoneal variety that miscarriages were not the rule. Small fibroids might exist without causing a miscarriage, but his own experience proved that when there was a fibroid tumour of the size of a cocoa-nut in the wall of the uterus it almost invariably caused miscarriage. Many such patients came with a history of repeated miscarriages, occurring generally at about the same period of gestation—namely, the third or fourth month, as if at that time the further growth of the ovum was interfered with by the tumour, and hence the expulsion of the contents of the uterus. Whilst it was true that with modern aseptic methods the mortality in hysterectomy had been greatly reduced it was equally true that the mortality in induction of miscarriage had also been greatly reduced. Nevertheless, aseptic methods had not eliminated one danger in the induction of miscarriage for fibroids, and that was hæmorrhage. This danger was considerable, because even after the escape of the liquor amnii it was often impossible, owing to the increased length and tortuosity of the canal, to reach with the finger so as to peel off the whole of the placenta. Very probably in every one of the cases described by Dr. Donald the operations were necessary, because the tumours were large and caused great obstruction. But he could not agree with the deduction that in early pregnancy with fibroids abdominal section should be performed in all cases. On the contrary, many cases, perhaps the majority, might well be left alone with a reasonable hope that all would go well. As in other diseases, each case must be judged on its own merits.

Dr. DONALD, in reply, said that many of the criticisms which had been made were due to a misunderstanding. Many of the speakers had objected to his advocacy of the removal of pedunculated sub-serous fibroids during pregnancy. The kind of tumour which he had in mind in giving this advice was a hard fibroid of fair size and with a pedicle sufficiently long and narrow to allow of considerable range of movement. The risk of removing such a tumour during pregnancy was no greater than was that of ovariotomy. On the other hand, there was great risk during pregnancy and labour and the subsequent involution of the uterus of these tumours being rotated so that their nutrition was interfered with. The only kind of case in which the induction of abortion could be entertained was one in which the delivery of a mature fœtus was manifestly impossible owing to the blocking of the pelvis by one or more fibroid tumours. In such a case the canal was generally elongated and tortuous, and there was as much risk in this method of treatment as in an abdominal operation. Morever, in any case where such conditions existed, even if the uterine cavity were safely emptied, a subsequent operation for the removal of the tumour would almost certainly be required.

The following specimens were exhibited:—

Dr. DONALD (for Dr. W. E. FOTHERGILL): A Decidual Uterine Cast of seven weeks' growth expelled with an ovum of about five days' growth, with microscopical section. This specimen was referred to a sub-committee for report.

Dr. H. R. ANDREWS: Two cases of Fœtal Ascites and Œdema.

Mr. STANLEY BOYD (introduced by Dr. AMAND ROUTH): An unusual case of Suppurating Fibro-myoma of the Uterus removed by Hysterectomy.

Mr. DORAN: A Pregnant Fibroid Uterus removed in the fifth month.

The specimens were discussed by the PRESIDENT, Dr. C. J. CULLINGWORTH, Dr. DONALD, Mr. DORAN, Dr DUNCAN, Dr. T. W. EDEN, Dr. HERMAN, Dr LEWERS, Dr. ROUTH, Dr. SPENCER, Dr. T. G STEVENS, and Mr. J. H. TARGETT

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.—A general meeting of this society was held at 20, Hanover-square, W., on May 31st, Dr. F. Bagshawe, the President, being in the chair.—The annual dinner took place the same evening at Limmer's Hotel when Sir William

Church, Bart., proposed the toast of "The British Balneological and Climatological Society" and Dr. Fortescue Fox, chairman of the Council, responded.—The annual conversazione was then held and Dr. Burney Yeo read an address entitled "Hepatic Inadequacy."—Dr. Symes Thompson proposed, and Dr. Douglas Kerr seconded, a vote of thanks to the lecturer.—The President showed Prints of old Hastings.—Dr. O. Begg (Bath) showed a Douche-Massage Chair.—Dr. Morgan Dockrell showed Microscopic Specimens of Skin Diseases—Dr. Glover Lyon showed a Model of an Interesting Ventilating System.—Mr. Chisholm Williams showed an apparatus for producing Electrical Currents of High Potential and High Frequency.—The Bath Corporation showed a model of the Old Roman Baths of Bath.—The Harrogate Corporation showed a mode of Combination of Douche and Needle Bath.—Dr. Cecil Musgrave (Cromer) showed views of Cromer and there were other interesting exhibits by Messrs. Negretti and Zambra (Meteorological Instruments), Messrs. Callard and Co. (Dietetic Preparations), Messrs. John Bale and Sons (Books), Messrs. Oppenheimer and Frank Rogers (Drugs), and Mr. Alfred Cox (Instruments). The society now numbers 360 Fellows.

WIGAN MEDICAL SOCIETY. — An ordinary meeting of this society was held on June 6th; there was a good attendance of members.—The President (Mr. W. Latham) read his presidential address on Minor Points in the Treatment of Surgical Diseases of Children.—The address was a practical and interesting one and lead to a hearty vote of thanks from the members, Dr. White, Dr. Benson, Dr. W. R. Dix, Mr. McElligott, Mr. Greene, and the honorary secretary speaking to various points raised in the paper.

Reviews and Notices of Books.

A Text-book of Pathology. By ALFRED STENGEL, M.D., Professor of Medicine in the University of Pennsylvania; Physician to the Philadelphia Hospital, &c. Third edition, revised. London and Philadelphia: W. B. Saunders and Co. 1900. Pp. 872, 372 illustrations. Price 21s.

THIS being the third edition of this work but few words are needed to explain its nature and scope; suffice it to say that the author has tried to present the subject of pathology in as practical a form as possible, and always from the point of view of the clinical pathologist and an admirable text-book is the result. The present edition has been thoroughly revised with the intention of bringing the subject matter up to date and amplifying the sections on Pathologic Physiology. Controversial matter has been avoided as much as possible, excepting in certain parts of the sections on General Bacteriology and on Neuropathology in which conflicting theories are properly discussed.

We consider that this text-book will be found a convenient one for students. The descriptions of the various morbid conditions are complete and comprehensive without being too long, and a good knowledge of pathology should be acquired by a careful study of the pages of this manual.

The value of the work is augmented by the many illustrations scattered through it; the majority seem to be borrowed but are not to be despised on that account. We notice a particularly good one, which is apparently original, showing the histological changes found in acute appendicitis.

It is not easy in a volume of this kind dealing with a general subject such as pathology to select any special portions for comment. The descriptions of the various forms of tumours are especially worthy of attention and the chapter on Bacteria and Diseases due to Bacteria will be found to contain a vast amount of information. We notice that in referring to the smegma bacillus the word "acid-proof" is employed—a better term than the literal translation "acid-fast," which is generally adopted.

The hæmatozoon malariæ is also well described. The chapter on Diseases of the Blood is brought fully up-to-date; this is necessary as our knowledge in this respect has been greatly added to in quite recent years. The varieties of leucocytes and the pathological changes which the red and white blood cells undergo are duly noticed, as well as the conditions included under the title of "Primary Anæmias."

The term "peptic ulcer" is used instead of "gastric ulcer"—a change which cannot be altogether accepted, as the pathology of the condition has not been satisfactorily explained. The author says: "It is admitted that they [the ulcers] are due to the action of the gastric juice upon parts of lowered vitality." This is the probable cause of the ulcers, but the controversy on their etiology still wages, and it would have been better to retain the old term "gastric ulcer" until the pathology has been more definitely determined.

The chapter on Diseases of the Bones is well worthy of notice; an excellent coloured plate showing the epiphyseal junction in congenital syphilis also claims attention.

We congratulate Professor Stengel on having produced a capital manual on pathology.

A Clinical Treatise on Fractures. By WILLIAM BARTON HOPKINS, M.D., Surgeon to the Pennsylvania Hospital and to the Orthopædic Hospital and Infirmary for Nervous Diseases, Philadelphia. Philadelphia and London: J. B. Lippincott Company. 1900. Pp. 268. Price 18s.

THE basis of this volume was a series of clinical lectures delivered by the author at the Pennsylvania Hospital and they have been revised and elaborated so as to make them a complete work. The book is written in a pleasant manner and should prove interesting reading. Obsolete methods have been omitted as unnecessary for a practical treatise, and in cases where several modes of treatment are possible the author has described that method which he has personally found to be the most simple and effective.

A valuable chapter is that recording an important series of experiments which had for their object the investigation of the actual force required to fracture adult bones. By means of various testing machines the transverse, crushing, and tensile strains were estimated. The bones experimented on were taken from the body of a strong adult mulatto, 27 years of age, who had died from an acute disease. The femur was subjected to a crushing strain of 3130 pounds before it yielded, while 1155 pounds applied transversely sufficed to fracture the bone. It is, indeed, remarkable, as the author observes, that a pressure of over half a ton applied transversely was required to break the femur. When the patella was subjected to a tensile strain the bone did not break, but the ligamentum patellæ was ruptured about its middle at 1845 pounds. Dr. Hopkins appears to be surprised at this, but it has long been recognised that mere traction never breaks the patella; and if the knee is straight when the quadriceps contracts either the tendon of the quadriceps or the patellar ligament will give way. If, however, the knee is bent the patella touches the femur on only a very narrow surface so that the quadriceps and the ligament are pulling on the bone with less than a right angle between their directions. When the patella gives way under these circumstances the fracture can in no sense be ascribed to the action of tensile forces. This fact, indeed, the author recognises to some extent, but he does not attribute to the flexed position of the knee the importance it deserves.

Many useful skiagrams illustrate the positions of the fragments in fractures and must materially assist the student. The treatment advocated is sound and modern. In the description of the methods of fixation of compound fractures the author describes an ingenious "rack" which he has devised for holding the fragments of the bone while they are being sawn and drilled for an ivory screw, and in certain cases such an apparatus would prove very useful.

The Extra Pharmacopœia By WILLIAM MARTINDALE, F.L.S., F.C.S., late President and Examiner of the Pharmaceutical Society; and W. WYNN WESTCOTT, M.B. Lond., D.P.H., H.M.'s Coroner for North East London. Tenth edition. London: H. K. Lewis. 1901. Price 10*s.* 6*d.* net. Pp. 688.

WHEN a book has reached its tenth edition and is so well known as the Extra Pharmacopœia anything that may be said by the reviewer is a mere work of *supererogation.* It *presents* a mine of information of its kind, so arranged as to be ready to hand and accessible to the reader and the busy practitioner, and it is not easy to realise the amount of labour and care which its compilation must have entailed. The authors in their preface to this edition call attention to the fact that since the publication of the last British Pharmacopœia there have been numerous additions of an official and non official kind to the subject in hand, and that they have from a pharmaceutical point of view made a careful study of these publications and also of all the current literature in order to place a fair review of the present condition of pharmacy and therapeutics before their readers. We have had the curiosity to compare this tenth edition with a copy of the fourth edition published in 1885 which we happened to have in our possession and we think that the authors of the present edition may be congratulated on having successfully accomplished their task. The work throughout bears marks of having been carefully revised. In the section headed Analytical Memoranda, for example, and comprised within the pages from 525 to 544 they have managed to compress a large amount of useful information about matters which a few years ago had relatively little significance to the ordinary medical practitioner and with which he did not therefore concern himself. And the same may be said about other points scattered here and there throughout the pages of the present volume. We need scarcely add that this edition of the Extra Pharmacopœia is a most useful little *vade mecum* and deserves its popularity.

The Practice of Medicine. By JAMES TYSON, M.D., Professor of Medicine in the University of Pennsylvania and Physician to the hospital of the University, Physician to the Philadelphia Hospital, &c. Second edition. London: Rebman, Limited. 1901. Pp. 1240. 127 Illustrations Price 24*s.*

THIS volume is intended as a text-book for practitioners and students, with special reference to diagnosis and treatment. The morbid anatomy and pathology are thus very briefly dealt with; considering the numerous excellent manuals dealing solely with these subjects this plan is a judicious one We strongly oppose the idea that "clinical medicine" and "pathology" should be separated—a successful knowledge of the former must largely be founded on the latter; but a book such as we have now before us is most valuable, both for a student to study in conjunction with other works and also to refer to when busy with his duties in the wards and out-patient rooms. In the midst of practice also a practitioner welcomes a work on medicine in which he can readily find information which will aid him in the diagnosis of disease and treatment of his patients.

In the revision called for by a second edition of this text-book opportunity has been taken to make such additions and corrections as the progress of medicine since its publication seemed to demand, and the book has been thoroughly brought up to date.

The section on Infectious Diseases is most complete The account given of the malarial fevers is well worthy of perusal and the description of the malarial organism is full and accurate. In accordance with modern views pneumonia (croupous, chronic interstitial, and broncho-pneumonia), and rheumatic fever are included under the heading of infectious fevers; but the author has acted wisely in retaining chronic articular rheumatism and muscular rheumatism under the "constitutional diseases." The present state of medical knowledge does not, in our opinion, justify an author in doing otherwise.

The sections on Diseases of the Blood and the Vascular System have naturally received considerable additions. A new feature in the more recent text books on medicine is the introduction of "blood charts" showing the variation in the number of red and white corpuscles and the proportion of hæmoglobin in the course of certain diseases. In Dr. Tyson's work we find instances of such charts in the subsections on Typhoid Fever, on Secondary Anæmia, and on Chlorosis.

The section on Diseases of the Nervous System has also been considerably enlarged.

Throughout the book the clinical descriptions are clear and full, and the methods of treatment described are those generally recognised as being the most modern and satisfactory. We congratulate Dr. Tyson on having produced a readable and instructive manual.

Human Placentation: An Account of the Changes in the Uterine Mucosa and in the Attached Fœtal Structures during Pregnancy By J. CLARENCE WEBSTER, B.A., M.D., F.R.C.P., F.R.S. Edin With 233 Illustrations Chicago: W. T. Keener and Co. 1901. 8vo. Pp 120. Price $3 75 net

AS Professor Webster remarks in his introduction, there is no department of embryology in which greater differences of opinion exist than in that which is the subject of this work. His own observations, based as they are upon an examination of the placenta at all periods of pregnancy and upon numerous early abortions, are of great interest and value, and will do much to settle many of the disputed points in regard to the anatomy of the early placenta. The book represents the outcome of some 11 years' work, and has the advantage of placing before the English reader full details of the extremely interesting specimens of early pregnancy recently described by Leopold and Peters. In *the latter specimen* the pregnancy was probably not more than five or six days old, and as the appearances were very fully and completely described we are at last in possession of some trustworthy information as to the changes that occur in the decidua in the very earliest days of gestation.

In considering the decidua vera the author is of opinion that the decidual cells are undoubtedly derived from pre-existing embryonic cellular elements He is unable to confirm Eden's view that the occurrence of hæmorrhages into the early decidua vera is an essential change, nor can he find any evidence of the development of new glands Peters's view as to the origin of the decidua reflexa by the sinking of the ovum into the mucosa and the lateral excavation of the latter is accepted. The absence of any epithelium upon the inner surface of the reflexa and its irregular outline are in favour of this explanation. The occurrence of degenerative changes in the decidua reflexa, as early as the sixth week is a matter of much interest and the fact that when a reflexal placenta is formed these degenerative processes do not occur until much later is of importance in regard to the possible causation of such degeneration.

Chapter V. upon the Early Relation between the Ovum and the Decidua is one of great interest. The work of Peters and Hubert is fully considered and a good account is given of the development of the trophoblast from the primitive epiblast.

its subsequent vacuolation, and the development of maternal blood spaces in its meshes. It must be a source of satisfaction to Professor Webster to find how fully the views expressed by him in his book on "Ectopic Pregnancy" as to the nature and formation of the trophoblast have been confirmed by subsequent observers. As to the probable functions of the early epiblastic proliferation the author suggests that it serves to fix the ovum; the trabeculæ form path-finders for the future villi, and perform the important function of absorbing nutrition for the early ovum.

There are very many points of great interest described in connexion with the development of the placenta, its shedding, and its phylogeny and the plane of separation of the ovum, for which we must refer our readers to the work itself. The book is very fully illustrated with numerous drawings and micro-photographs. The latter have all the defects that usually accompany their reproduction. It is a pity that the author has not adopted a uniform system of lettering, as in that way the labour of examining the numerous illustrations would have been materially lightened. The whole book is the outcome of some very good work and it is encouraging to find that we have at least one English worker who is able to dispute the supremacy of the Teutonic host who have so far mainly monopolised this field of research.

LIBRARY TABLE.

Atlas und Grundriss der Speciellen Pathologischen Histologie. (Atlas and Manual of Pathological Histology.) Von Privat-Docent Dr. HERMANN DURCK, Assistant in the Pathological Institute in Munich. Vol. II. Munich: J. F. Lehmann. 1901.—This forms the twenty-first volume of the excellent series of "hand atlases" published by J. F. Lehmann. It comprises descriptions of the histology of the liver, urinary organs, reproductive organs, the nervous system, skin, muscles, and bones. The work maintains the high standard of its predecessors. The plates are most beautifully reproduced and are accurate representations of the microscopic structure of the various organs concerned and the changes produced by disease. Amongst the plates devoted to affections of the liver a plate representing the pathological histology of acute yellow atrophy is noteworthy, as are also plates showing recent and old gummata in the liver. Amongst the many other excellent plates we find illustrations of the following conditions: the kidney in acute leukæmia, embolic tuberculosis of the kidney, "diphtheritic cystitis," tuberculosis of the prostate, testicle showing gummata, tuberculous salpingitis, syphilitic spinal pachymeningitis, tuberculous and syphilitic lepto-meningitis, multiple sclerosis, pigmentation of the skin in Addison's disease, and osteomalacia. We can only once more express our unbounded admiration as to the manner in which these volumes are published and the plates reproduced.

The Church of Humanity. By DAVID CHRISTIE MURRAY. London: Chatto and Windus. 1901. Pp. 318. Price 6*s.*—This is the history of one John Manger who from being a clown in a travelling canvas theatre and more or less of a dipsomaniac became immersed, converted, and carried away in a religious movement. Inspired by a passion to be of service to mankind he became the founder of a Church. John Manger was a man of strong emotional nature without any education or pretence, but endowed with oratorical powers and a melodramatical style of preaching of no mean kind, and if he was a religious fanatic he is nevertheless represented as thoroughly sincere and dominated by such a passionate belief in the truth of what he was advocating as to make him for the time being inspired. There is no lack of sensational and exciting incident introduced into his history and career from its beginning to its close, what with hypnotism, the tragic history of his marriage, and all that it led to. It is powerfully written and the characters are strongly drawn, and the description of the people among whom John Manger lived, moved, and had his being is, we doubt not, true to life and well done, but we find ourselves asking whether the impressions created by reading literature of this sort be of a wholesome nature. The parts descriptive of Mrs. Toombey, the widowed occupant of a travelling van, and of her wedding with Mr. Grimes, and of Mrs. Manger's interview with her husband's business brother in the church transactions when calling upon him to produce his accounts are excellent as well as amusing.

BOLINGBROKE HOSPITAL, WANDSWORTH COMMON.

THE Lord Mayor, accompanied by the Lady Mayoress, the Sheriffs, and other city officials, visited Wandsworth on June 8th to lay the memorial-stone of the new Victoria wing of the Bolingbroke Hospital, Wandsworth Common. The civic party was met some distance from the hospital by a procession of trade and friendly societies, which accompanied it to the site prepared for the laying of the stone. The Mayor was received at the hospital by Canon Erskine Clarke and other governors.

Canon ERSKINE CLARKE, addressing the Lord Mayor, said that in the name of the governors of the hospital he had the honour to ask his lordship to lay the corner-stone of this new wing which had been given the name of their late good queen. It was called a wing and it would be a wing of the old house, but it really was much more. It was the first part of a great hospital with 150 beds. The new wing would be used as an out-patient department. The difficulty of dealing with out-patients who were able to pay for medical treatment had been overcome, thanks to the suggestion of Mr. Lyster, the medical superintendent, and no out-patient was received except with a certificate from a duly qualified medical man. He pointed out that the population of Battersea had grown considerably during the last 25 years and he dwelt upon the necessity for the hospital which was four miles distant from the nearest general hospital. The governors had been greatly encouraged in their efforts to carry on the hospital by the loyal support of the industrial classes who had contributed £900 towards the hospital.

Prayer was then offered by the Bishop of Southwark and the Lord Mayor performed the ceremony of laying the memorial stone. The Lady Mayoress received a number of purses, the first donor being a baby, a patient from the hospital carried by one of the nurses. A vote of thanks to the Lady Mayoress and the Purse-holders, moved by Mr. Percy Thornton, M.P., and seconded by Mr. H. Kimber, M.P., and also to the Lord Mayor, moved by Mr. William Davies, J.P., L.C.C. (Mayor of Battersea), and seconded by Mr. J. Lidiard, J.P. (Mayor of Wandsworth), concluded the proceedings.

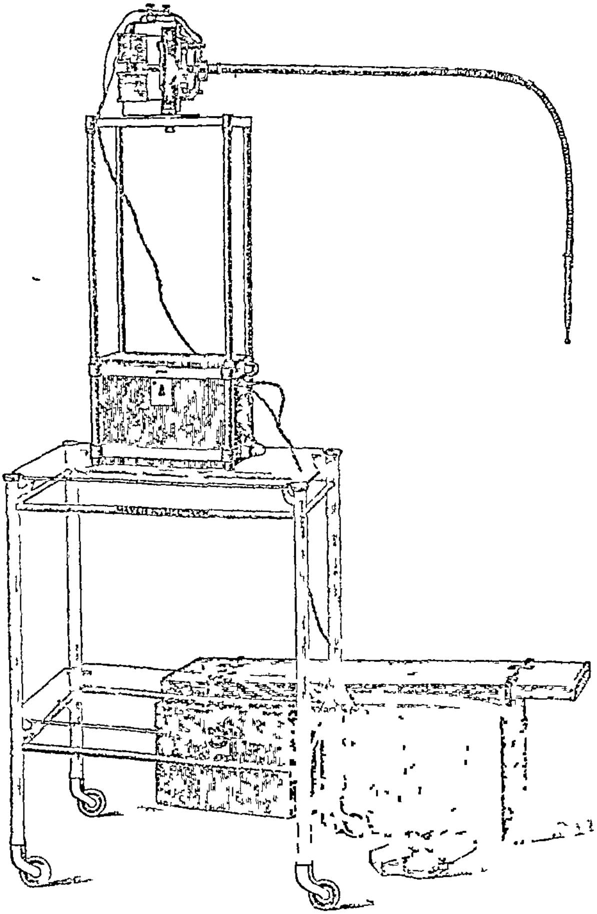
DOWNDERRY, a seaside resort on the Cornish coast, was *en fête* on June 5th, when the new water-supply was formally opened. The supply is derived from Deviock by means of springs and reservoirs, the cost being estimated at about £1400. Downderry has also an efficient system of drainage which was completed in October, 1900.

THE LIVINGSTONE EXHIBITION.—The second Livingstone Exhibition, under the patronage of Princess Christian, which is practically a Travellers' Health Exhibition, will be held in the Westminster Town Hall from June 18th to 21st. A representative display will be made of travellers' requisites by leading firms engaged in the sale or manufacture of such goods, and lectures will be delivered on a variety of subjects relating to health and travel. There will also be a valuable loan collection, including a number of Livingstone relics, one of which is the section of the tree containing the inscription which originally marked the place where Livingstone's heart lies buried and which is lent by the Royal Geographical Society.

New Inventions.

PORTABLE SURGICAL MOTOR

KNOWING the want felt by surgeons for a good form of motor which can be carried about to private operations we send a description of one used by us It has been constructed by Messrs Mayer and Meltzer of Great Portland street who have spent much time in perfecting the various details The 16 volt accumulator is of a sealed type, having a capacity of 18 ampère hours and it weighs about 34 pounds The motor is of the type known as the "D" pattern, so called on account of the shape of the field magnet The armature is a gramme ring and is attached directly to the shaft which carries the cable thus acting the part of a fly wheel It weighs about 15 pounds and is mounted on a gun metal turn table which enables it to rotate and to follow the movements of the operator The turn table is mounted on a platform at each corner of which are sockets and similar sockets are attached to the steel frame which surrounds the accumulator Into these sockets steel tubes are fitted which form a rigid stand at a convenient height The accumulator acts as a secure base for the motor when in action The metal cable is directly attached to the central shaft of the motor and is covered with a flexible metal tube which can be boiled The hand piece is attached to the cable by means of a left-handed screw It is perfectly plain in design and has no corners for the accumulation of septic matter The drills, saws, and other tools are held in position by a spring clutch acting in a groove in their shanks, and are easily fixed or removed The hand piece is in two parts *only* The cable and hand piece are supported by a rigid steel tube terminating in a spring which relieves the operator almost entirely of their weight and allows of much greater delicacy of touch than would otherwise be possible The motor is started and its speed regulated by means of a foot switch The apparatus ready for use is shown in the figure, and when dismounted it fits into three packages shown at the foot of the figure The case on the left is the accumulator, that on the right contains the motor, stand, turn-table, switch and other fittings, the package on the top carries the legs of the stand and flexible arm The entire apparatus with cases included weighs about 70 pounds For hospital work the motor is wound to suit the voltage of the main current It is mounted on an enamelled steel pedestal fitted with ball bearing castors Burrs drills, a small trephine and Cryer's drill can be used with the motor



C A BALLANCE M S Lond
W [illegible] M D

THE LANCET.

LONDON: SATURDAY, JUNE 15, 1901.

Medical Union.

FROM its foundation THE LANCET has always attempted to impress upon medical men the importance of united action in professional matters. Medical men are all inspired with the same hopes; we all have the same objects in view; and inasmuch as true medical science is the same wherever taught, we all approach our duties equipped in the same broad way to assist in the prevention of disease and the alleviation of misery. Details of treatment may differ in certain schools—a point in etiology that in one place is regarded as theoretical is accepted in another as proven, but these minor differences of opinion, by leading to comparisons of view, only serve to bring out more clearly the important fact that true medicine has no geographical limits. Therefore it is that medical union ought to be so possible and so useful, and we are certain that it could play a much more important part in our professional life if we realised with clearness what is meant by the words.

A professional union is not a trade union. Two prominent persons have recently accused the medical profession of employing trade union methods towards the public—Mr. CHAMBERLAIN and Lord GRIMTHORPE. Let us deal first with Lord GRIMTHORPE who, although he describes himself in a letter to the *Times* as having once been "a sort of Archbishop," must not be taken seriously. Lord GRIMTHORPE, besides being an ex-quasi-archbishop (he has been Chancellor and Vicar-General of the province of York) is an ecclesiastical lawyer of some note and an amateur architect of more daring than science. His letters to the *Times* have been during his long life frequent and free; they have often been ridiculous, but his recent effusion is silly without containing the saving graces of humour and caustic phrase which we are wont to expect from his pen. Lord GRIMTHORPE considers that the General Medical Council—"a parcel of doctors" as he politely terms it—is guilty of unionist tyranny when it strikes off the roll of the medical profession the name of an unworthy member. He evidently has not the faintest idea of the position which the General Medical Council occupies towards the public and fails to see that its actions in purging the Register are undertaken to protect the public. His attempt to disparage the medical profession in the eyes of the world through the medium of the *Times* offers a sad proof of his advancing years—and no more need be said about it. Mr. CHAMBERLAIN is in a different position. He is one of the most prominent statesmen in the world, his general repute as an able and clear-headed man is universal, while he is a specially experienced judge of trade methods. He also has alluded to the General Medical Council as employing the methods of trade unionism. He is not suffering from senility, and his unfortunate words in the House of Commons in detailed defence of the conduct of Dr. IRVINE were spoken no doubt with conviction. He described the General Medical Council as having placed a stigma upon Dr. IRVINE for the trade union offence of underselling his fellow tradesmen by assisting in certain charitable work. Dr. IRVINE himself, before the General Medical Council on June 8th last, admitted that he quite understood that the question of the scale of fees which was laid down by the Birmingham Consultative Institute had nothing whatever to do with the decision of the Council in finding his professional conduct "as being of a serious character," while he recognised that the only offence alleged against him was that he had been considered to be privy to certain advertisements issued by the Institute. The essential claim of the Birmingham Consultative Institute is that it is not a charity but an institution for self-respecting persons willing to pay proper fees. Mr. CHAMBERLAIN'S misstatement—that Dr. IRVINE was punished by the General Medical Council for taking lower fees than his professional brethren with intent to help a charity—remains uncorrected and doubtless will so remain; and it is possible that this fact has impelled Lord GRIMTHORPE, and other people too old or too stupid to think for themselves, to imagine that the medical profession is banded together in a strict trade union to despoil the public.

Our readers may find this impression among their patients and they would do well to be prepared to explain the difference between a professional union and a trade union. We are not here decrying trade unions. We are not denying that many trade unions have been animated by far nobler sentiments than the desire to extract from the employer of labour the maximum of pay for the minimum of work. If sometimes the tyranny of capital has been replaced by the tyranny of labour the situation is one that usually adjusts itself. But what we desire to point out is that professional union means something more. Medical men are bound together by the nature of their high calling. Professing a science that is one, they attempt to regulate their dealings both with each other and with the public according to a code that is accepted by all, and that has gradually grown up as the intimate and confidential nature of the trust reposed in them became patent to civilised nations. The code has been recognised by the legislature of this country when discretion was granted to the General Medical Council to remove from the Register the names of persons transgressing its laws which, if more or less unwritten, are still so familiar to all medical men. In these well-known circumstances to describe the bond existing between medical men as a simple trade union is to show complete ignorance. For the services which the medical profession renders to the public the medical profession must be paid, and the question has always presented itself to thinking people how far the profession can use the power of union, given by a common basis of knowledge and a common code of ethics, to maintain a proper standard of remuneration. In certain positions it is being gradually recognised that to accept contract work is to come dangerously near infringement of the code. The point of inadequate fees is one thing and one thing only in the question of contract work. Where the employers are laymen the medical man loses his professional independence, and may be placed in a position, as Dr. IRVINE was, where to agree with his lay employers is to transgress the accepted code.

Sanitation and Yellow Fever in Havana.

A DISTINGUISHED American writer has truly said: "By the death-rate all sanitary reforms must be tested. They *will stand the test. Lower the ground water, replace* sewage-soaked wells with an arterial supply from pure sources, let sewers relieve the overburdened ground of the products of waste, empty and disinfect the reeking vaults, cleanse the garbage-strewn alleys, and the death-rate will respond as promptly as the mercury in the barometer tube to the changing weight of the atmosphere." Judged by this test Havana under the American *régime* has been found to be no exception to the rule. The death-rate has been largely decreased, and it is confidently anticipated that when other contemplated sanitary reforms have been introduced the *mortality of the Cuban capital will compare favourably* with that of cities which enjoy a well-established reputation for healthfulness. Major VALÉRY HAVARD, chief surgeon of the Department of Cuba, in a report recently published, comments at length upon the effects of the sanitary reforms already carried out in Havana, but by far the chief interest of his remarks centres in his description of yellow fever in Havana from the point of view of the sanitarian.

The investigations of Major WALTER REED and his colleagues with respect to the etiology of yellow fever, resulting in the theory that it is caused by the bite of a *species* of mosquito, acting, as in the case of malaria, as the intermediary host to man, has thrown doubt on existing beliefs as to the means of transmission of the malady and has consequently also modified prevailing ideas with regard to its prevention. Major HAVARD, it is interesting to note, is a hard-and-fast believer in the views propounded by the American army *savants*, and moreover is extremely sanguine that, acting upon the knowledge of the cause of yellow fever, the task of eradicating both that disease and malaria from Havana will present no insurmountable obstacles. He agrees with Major REED that dirt and filth have nothing whatever to do with the spread of yellow fever except inasmuch as they may attract and feed mosquitoes, and he points out that Major REED and his colleagues conclusively proved by direct experiment that infected linen, bedding, and effects of all kinds are powerless to convey the disease. Major HAVARD cites as a strong argument in support of the truth of this contention that in Havana in 1900 no visible correlation could be seen between dirt and yellow fever, the district which first became strongly infected being one of the cleanest and best constructed, while the most *insanitary wards became infected late in the season and* only to a slight extent. Yellow fever did not follow the poor and unclean or the march of previous infections, but rather the movement of non-immunes. In fact, according to the new theory yellow fever is non-contagious and fomites are inert. With the morbific mosquito out of the way the disease cannot spread. Consequently the problem consists in the extirpation of the culex fasciatus, in the protection of yellow fever patients and all non-immunes with mosquito nets, and in isolation of patients. Disinfection is useless because there are no infectious germs to destroy, but fumigation by formaldehyde gas is recommended in a house in which yellow fever is present and where infected mosquitoes may be lurking. Again, assuming that the infectious germs do not exist except in man and the mosquito, disinfection of baggage is unnecessary and the duty of the quarantine official will be simplified to detaining non-immunes for five days immediately following their last exposure to infection and to fumigating the ship. The chief factors in the propagation of yellow fever being mosquitoes and non-immunes, measures to protect the latter are indispensable with a view to check the spread of the disease. Major HAVARD pertinently remarks that if immigration could be stopped for two or three years, and if during that period all germ-bearing mosquitoes could be destroyed, the city thereafter could be kept as free from infection as Kingston in Jamaica and San Juan in *Porto Rico. But immigration cannot be stopped nor,* probably, can the offending mosquitoes be extirpated with the comparative ease which certain optimistic persons seem to imagine. Much undoubtedly can be accomplished in Havana towards this result by the establishment of an efficient sewerage system, by a thorough drainage of the neighbourhood of the city, and by the protection of non-immunes by every means which lie in the power of the authorities. The inhabitants of this portion of the world, and especially of the Southern States of the Union and South America, as a whole, will watch the efforts to stamp out yellow fever in Cuba with the greatest interest. There can be no doubt that if, as Major REED and his coadjutors assert, the mosquito culex fasciatus is the only agency by which yellow fever is communicated to the human race the task of eradicating the disease will be rendered much easier.

Major HAVARD, at the end of his report, discusses the subject of immunity against yellow fever, and some of his remarks may arouse the attention of those who have made a study of the malady. He says: "Immunity is not enjoyed by all Cubans as popularly believed, but only by those residing in cities, not by those who have lived from infancy in the interior rural districts. In other words, immunity is only enjoyed by the residents of centres where yellow fever is endemic; it is not enough to have lived in a tropical climate, one must have lived in an infected locality. The inference therefore is strong that immunity is acquired only by an attack of the disease; there is no other infectious disease against which immunity is obtained in any other way and there is no reason to believe that yellow fever is an exception to that rule Under the former belief that it was acquired by the absorption of germs through the respiratory passages it was possible to conceive the possibility of a very slow but constant infinitesimal absorption which might in time produce immunity without any apparent fever, but such a conception is no longer tenable if the germs are introduced directly into the blood by the mosquito. Those physicians who assume *a priori* that Cubans, whether they live in the city or country, cannot have yellow fever, decline to recognise it when they find it in natives: they call it *fiebre de borras*, and consider it a special form of malaria which, strangely enough, only occurs in this island." It would be instructive in this connexion to hear the experience of physicians who have treated yellow fever in the British West Indian islands. The entire trend of Major HAVARD'S valuable report, it will be observed, is strongly to confirm the views of Major REED, and is thus, coming from one who has claim to speak with authority, another link in the chain of argument in favour of the new theory of the etiology of yellow fever.

Medical Ethics in France.

OUR readers doubtless noticed in the letter of our Paris correspondent in THE LANCET of April 27th, p. 1242, a statement of certain principles of medical deontology adopted by the Conseil Général des Sociétés d'Arrondissement. It is not inopportune to notice the increased attention which is being given to questions of medical conduct as distinguished from questions of medical practice or science, and the statement referred to is worthy of consideration on account of the time spent upon it and for the purpose of ascertaining whether there is any new principle in it or any new commandment binding on the practitioners of the present day which was not binding on their fathers. The deontological points enumerated by our Paris correspondent have reference mainly to the action of a medical man when he is summoned to see the patient of another practitioner and to the duties of consultants.

The first regulation prescribes that the practitioner called for the first time to a family and finding that he has only been summoned in the absence of the usual medical attendant shall only act as long as the absence of his professional brother lasts. In other words, he is not to take a mean advantage of his brother's absence to appropriate the case to himself. The second regulation deals with cases in which a medical man is called in in the absence of another medical man who has been treating the case and the patient expresses a wish for the future to retain his services. It is ruled that the new practitioner called in may go on attending the case provided that he informs the former medical attendant. In the third regulation the practitioner summoned in an emergency is enjoined only to prescribe such treatment as is immediately necessary, and not to return to the patient's house except in consultation with the usual medical attendant. This is, we think, a little too dogmatic. The case might be one of hæmorrhage, or of strangulated hernia, or of labour, and it might require repeated visits in the absence of the regular adviser. The fourth regulation requires a medical man summoned under the above circumstances to do his best to get the medical man hitherto in charge of the case retained, and in case of failure to inform the previous adviser. In all such cases it is well that the intimation of the patient's wish for a change should be given by the patient or by his friends rather than by the medical practitioner, though there is no reason why he should not privately and in a friendly way intimate the same to the medical brother whom he has superseded. Of course, it is to be assumed that he is a reluctant party to this displacement of a professional brother. If there be anything in professional morals and amenities it is that we are to be neighbourly, to be not only ready, but pleased, to help each other, to put the best construction on each others' work, and to take no advantage of what may be the temporary mood and adverse judgment of a patient with regard to his regular adviser. The man who does not so regard his duty to a medical neighbour has mistaken his calling and is not worthy of it. To hesitate about this, in the absence of any gross fault or carelessness on the part of a professional brother, is to ignore the first principles of medical ethics. Disease does not always respond immediately to the therapeutics of even the most experienced adviser. The new preference of the patient may be a mere whim due to peevishness or to disease. We shall all do well to remember these facts and to apply them in support of our brother practitioners. Any one who succeeds in vindicating a brother practitioner's character has done good service to his profession and gains more than is implied by the petty temporary acquisition of a new patient. If he fails and is obliged reluctantly to accept the case as contemplated in the second regulation he has at least done his duty, and has given proof to the laity that much as the true medical man appreciates a new patient he appreciates still more the obligations of his profession and the spirit of neighbourliness and mutual help in which they originate.

We must not omit to notice the last two regulations. The seventh regulation requires a practitioner to be generous in accepting as a consultant the practitioner proposed by the patient or by his family, whatever be his age or his status, "provided that his personal and professional honour is above suspicion." We highly approve of the wisdom of this suggestion. It is not for the practitioner in attendance to be critical as to the superiority of the consultant desired by the patient. He may give his general views on the matter, but he will act magnanimously if he seeks to satisfy and to please the patient. Even if the consultant is much younger than himself and of shorter experience he will do well to meet him with readiness. Nothing is more honourable to age than its appreciation of younger men, and perhaps the best consultations are those which involve such diverse advantages. We are not quite so sure about the eighth regulation, which tells us that the consulting-room is neutral ground where a medical man may give advice to anyone coming to consult him "without any regard to the medical man who usually looks after" him. Surely this is a doubtful doctrine that must be revised. The right of the patient to have whatever opinion he may prefer has been very properly vindicated in these regulations, and that may include the right to have the opinion of a consultant independently of that of his usual adviser. But "without any regard to the medical man who usually looks after him" is a very strong way of emancipating consulting practice from all obligations to general practitioners, and one of very doubtful advantage, we feel sure, to the patient. It is a new piece of medical ethics which will find no support in old authorities. We regard it with entire suspicion and disapproval, as tending to prevent that mutual and respectful coöperation in the diagnosis and treatment of difficult cases which is so desirable, and, we are glad to add, so usual, on the part of the consultant and the general practitioner.

Annotations.

"Ne quid nimis."

THE CARNEGIE TRUST.

THE particulars of the trust-deed and constitution whereby Mr. Carnegie proposes to secure the benefits of his munificence to the Universities of Scotland and their students have now been made public. The scheme as thus formulated has two features which rivet attention and which commend it to us at least as strongly as does the list of carefully selected men of mark who are to be responsible for safeguarding and administering the revenues placed at their disposal. In the first place the executive committee, consisting of nine of the trustees, is to have a free hand—that is to say, it is to deal with the income of the trust at its own discretion, expending its moneys as it may think best so long as it keeps in view the main objects of the founder's munificence. The circumstances and requirements of educational life undergo constant changes. Developments may occur at any time in the near or distant future which the most far-seeing and studious observer of the present day could not by any means in his power forecast, so that to have tied the hands of the trustees of Mr. Carnegie's millions by accurately prescribing their duties to-day might have fatally interfered with the usefulness of their successors, who, as matters stand, will be able to adapt their measures to the educational needs of future generations without hindrance and without appeal to courts of law or other supervising tribunals. It would be easy to point to instances at our older public schools or in our universities of the gift of the donor who has tried strictly to limit its application, with the result that it has for long benefited no person or object in the manner which the giver intended, and that in the end the fund has attracted the attention of the Charity Commissioners who have had to devise or to sanction new objects of expenditure entirely remote from anything that the founder knew of or desired. The objects to which Mr. Carnegie's trust are to be devoted are divided into two general classes, so that one-half of the net annual income is to be applied towards the improvement and expansion of the Universities of Scotland in the faculties of science and medicine, also for improving and extending the opportunities for scientific study and research and for increasing the facilities for acquiring a knowledge of history, economics, English literature, and modern languages, and such other subjects cognate to a technical or commercial education as can be brought within the scope of the university curriculum, by the erection of buildings, laboratories, class rooms, museums or libraries, the providing of efficient apparatus, books, and equipment, the institution and endowment of professorships and lectureships, and by similar measures which we need not give in detail; while the other half of the income, or such part of it as may in each year be found requisite, is to be used for the purpose of defraying the educational fees of students of Scottish birth, within limitations given, a disposition for which the early announcement of Mr. Carnegie's intentions had prepared us. The prominence given above to science and medicine, and to the providing of opportunities for scientific and medical study shows how closely Mr. Carnegie and those who may have advised him have studied the subject which they had to deal with and appreciated the relative difficulties which beset education and those who desire to make it thorough and effective. We may fairly say that in respect of costliness of apparatus the education of the medical practitioner stands almost alone. In the preparation for other professions there are charges for lectures and tuition, and fees are paid for the privilege of observing the work of others. In the case of other professions as well as of medicine, books, sometimes expensive books, form part of the necessary equipment of the student, but the costly instruments, the microscopes, the subjects of dissection and experiment, the whole apparatus of chemical research, can hardly be said to have a parallel in the early career of the would-be clergyman or lawyer, of the business man, or the soldier. In the case of these others, moreover, the intelligence of the student may sometimes enable him to dispense with aids which are necessary to his colleagues, and thus to educate himself at less expense. But the student of science differs from these. The further he goes the further his ambition calls him, and the greater his intelligence the wider, and in consequence the more costly, becomes the field of his researches. The gift which we are discussing will mark an epoch in the educational history of Scotland, a country in which education has ever been held in high honour and esteem, but we have little doubt that it will be those who in future years are preparing themselves for the practice of the medical profession and for other scientific pursuits who will have best reason to recall with gratitude the name of Mr. Carnegie. In America, where that gentleman has amassed his wealth, the endowment of educational centres on a colossal scale and other large-minded schemes for the public welfare have far more frequently than with us afforded the means by which successful men of business have sought to commemorate their fame and to show their gratitude to the Providence which has favoured them. If the example of Mr. Carnegie is followed in these islands he may have done more than benefit the Universities of Scotland; he may have originated a movement with far-reaching results, and have instituted a practice by which our great universities and many other institutions of national importance may be glad to profit. The names which they commemorate on the occasions prescribed for the praise of departed benefactors usually belong to periods of more or less remote antiquity, certainly to dates when wealth was less common and less vast than it is now.

A DAY IN THE COUNTRY.

THIS is the time of year when appeals are made to the public charity for money with which to give London children "a day in the country." The question is raised whether such a day does not bring harm rather than good, crowded as it is with the excitement and the strain of compressing as much experience as possible into the sixteen or so available hours. The Rev. S. A. Barnett, writing from Toynbee Hall on this subject, believes that in these children's treats is laid the foundation of a system of "days off" for workmen which is anything but beneficial to those for whom such holidays are the only ones at present available. If there were fewer single holidays and the workman could have every year a fortnight's consecutive freedom from work and from town he would, in Mr. Barnett's opinion, lose the idea that excitement is the only possible form of pleasure. Whether a difference in the arrangement of his holidays could effect such a difference in the bent of the workman's mind is open to doubt, but all must agree that the day's holiday, whether for men or for children, might be better spent than in the crowded trains, the rush, the scrambling feeding, and the bustling excitement of the "excursion" or the "school-treat" with which we are familiar. In the case of children it is incumbent upon the adults who conduct, as well as upon those who generally supply the funds for, the outing to see that the child's day in the country does not mean that natural sleep is curtailed by several hours, that the child is not herded into a carriage over-filled, is not crammed with food, hustled through games, re-packed into the carriage and brought back to London without having a chance of realising the quiet spirit, breathing the pure air, and noticing the gentle sweetness of the country side. It is not necessary for the holiday to be a long one to allow a London child to benefit by the country and to gain an impression which will dwell brightly in his memory for long days. Let him only be taken not too far a journey in not too great numbers and let him wander at his will in the quiet fields without being hurried into games or regulated sports. Even a few such free hours are full of physical and mental good for the child or the man who lives in a crowded city.

SIR WALTER BESANT.

THE late Sir Walter Besant was a philanthropist in the most literal sense of the word. He loved his fellow-men and spared no pains in their behalf. Of the most genial temperament and delighting in the happiness of others, the grey, depressing lives of the poor of London moved him to deep pity. A tireless worker, his heart bled for the seamstress whose day of labour was longer even than his own. A successful man from the opening of his literary career, his sympathy went out to all of his craft whose labours met with no return. His vision of a People's Palace to bring light into gloomy Whitechapel became a reality; his scheme for organising men and women of letters into a coherent body for the maintenance of their common rights resulted in that useful corporation, the Society of Authors. Of Sir Walter Besant as a scholar, a humourist, a novelist, and an antiquary much might be written and much will be written. But from a medical point of view it will suffice to say that the healthy recreation which his sane and beautiful stories brought to a vast circle of readers had its physical value, while his vivid and picturesque pourtrayal of eighteenth-century manners served to make us understand the processes of social evolution in a way that no dry-as-dust treatises could aspire to do. The death of such a man, devoted to well-doing, whose sanguine energy insured a practical effect for the dreams of his well-dowered brain, is a loss to the world, and we desire to pay tribute to our sense of this loss.

PUNCTURE OF THE KIDNEY FOR NEPHRITIS.

THE surgeon is ever invading the province of the physician, and so accustomed have we become to this that we hear without surprise of some new surgical method of treatment for a disease always hitherto assigned to the physician, but of all morbid conditions inflammation of such an organ as the kidney might have been thought the least likely to be subjected to the surgeon's knife. A few years ago Mr. Reginald Harrison, in his presidential address to the Medical Society of London, drew attention to the numerous cases which have been recorded in which a kidney has been cut down upon in expectation of some gross lesion being found and nothing of any importance has been discovered, yet decided improvement in the symptoms has followed the operation. Mr. Harrison suggested that the improvement was due to the relief of tension. This was a novel idea, but the results of the ordinary medicinal treatment of acute inflammations of the kidney are so unsatisfactory that we can only welcome any treatment which seems to offer a reasonable prospect of success. The subject is to be discussed at the Cheltenham meeting of the British Medical Association, the introductory paper being read by Mr. Harrison. We may hope to have the matter fully elucidated at that meeting. When we consider analogous cases we see how much damage may be done to delicate organs by mere increase of tension, and the damage is in a large degree proportionate to the teneseness of the capsule. In the eye a very slight increase of internal pressure suffices to damage irreparably its essential structure, and the name "renal glaucoma" has not inaptly been suggested for the truly analogous condition in the kidney. How far the operation of incision of the kidney can prevent or relieve the effects of congestion time alone can show, but the subject deserves the careful attention of all surgeons.

CHARING CROSS HOSPITAL: THE CHÈRE REINE LODGE OF FREEMASONS.

THE Chère Reine Lodge, No. 2853, was consecrated on June 7th at the Hotel Cecil, Strand, London, W.C., by V. W. Bro. Edward Letchworth, F.S.A., Grand Secretary, assisted by the following Grand Officers: R. W. Bro. Robert Grey, P.G.W., as S.W.; V. W. Bro. Edward Terry, P.G.T., as J.W.; V. W. Bro. Rev. Sir Borradaile Savory, G. Chaplain as Chaplain; W. Bro. Fitzroy Tower, as D.C.; and W. Bro. Woodhouse Braine, F.R.C.S., S.G.D., as I.G. The Chère Reine Lodge is the sixth lodge connected with medicine to be established in the metropolis and Charing Cross Hospital is the fifth of the London hospitals to associate itself with Freemasonry, following the good lead set by St. Bartholomew's, St. Mary's, the West London, and the Middlesex Hospitals. The officers appointed were W. Bro. Rev. A. W. Oxford, M.D. Oxon., P.G.D., Worshipful Master; Bro. John Abercrombie, M.D. Cantab., F.R.C.P., Senior Warden; Bro. Amand Routh, M.D. Lond., F.R.C.P., Junior Warden; W. Bro. J. Astley Bloxam, F.R.C.S. Eng., I.P.M.; W. Bro. C. E. Wright, Chaplain; R. W. Bro. Robert Grey, P.G.W., treasurer; Bro. C. Carter Braine, F.R.C.S., secretary; Bro. Frederick Wallis, M.B. Cantab., F.R.C.S. Eng., S.D.; Bro. Victor Corbould, M.D. Brux., J.D.; Bro. J. W. Eyre, M.D. Durh., I.G.; W. Bro. Arthur E. Reade, Organist; and Bro. P. L. Daniel, F.R.C.S. Eng., and Bro. J. Humphreys, L.D.S. Eng., Stewards. After the ceremony of consecration and the conclusion of business the Founders entertained their numerous guests at a banquet. The usual loyal toasts having been duly honoured the W. Master proposed "The Consecrating Officers" which was suitably acknowledged by the Grand Secretary. "The Worshipful Master" was proposed by W. Bro. Astley Bloxam, and W. Bro. Oxford in replying modestly regretted that he was filling a post which ought to have been occupied by one of the staff of the hospital had circumstances permitted. He then proposed the toast of the "Visitors," which was responded to by W. Bro. Surgeon Lieutenant-Colonel Kiallmark, W.M. of the University of London Lodge, W. Bro. L. Bidwell, F.R.C.S., W.M. of the Cavendish Lodge (West London Hospital), and W. Bro. A. E. Sansom, M.D. Lond., F.R.C.P., who is W.M. designate of the Lodge shortly to be founded in connexion with the London Hospital. "The Officers of the Lodge" was acknowledged by Bro. Abercrombie, Bro. Routh, and Bro. Carter Braine, the last-named remarking that although it might be imagined that the name "Chère Reine" had been adopted in connexion with the name of the hospital this was not actually so. It was rather selected because one of the crosses erected by King Edward I. to commemorate the route of Queen Eleanor's funeral procession was at the village of Charing, near to Westminster Abbey, and because it was thought that the recent death of Her Majesty Queen Victoria, who was Patroness of Charing-cross Hospital, would make "Chère Reine" a doubly appropriate designation for their lodge. We have no doubt that the experienced and able guidance of its first Master will prove of great assistance to the Chère Reine Lodge in starting on a career which there can be no doubt will be one of usefulness and success. At all events, it will have the hearty good wishes of every medical Freemason.

THE CORONERSHIP OF THE CITY OF LONDON.

AT a meeting of the Officers and Clerks Committee of the Corporation the three following gentlemen were placed upon the selected list of candidates for the City Coronership—Dr. *Major Greenwood*, Dr. *H. R. Oswald*, and *Dr. F. J. Waldo*. All three of these gentlemen are barristers as well as members of the medical profession and we feel that we cannot do otherwise than congratulate the Corporation of the City of London on their choice. We have placed the names alphabetically and, so far as we are concerned, shall be pleased to see any one of the three candidates successful. Although Dr. Oswald is the only one who has already had experience in the actual office of coroner, both Dr. Greenwood and Dr. Waldo have, we believe, assisted Dr. Danford Thomas in a large number of inquests. The final election will take place at a meeting of the Court of Common Council on Thursday, June 20th.

THE DEVON AND CORNWALL ASSOCIATION FOR THE PREVENTION OF CONSUMPTION AND OTHER FORMS OF TUBERCULOSIS.

THIS society appears to be doing good work in the West of England. It is well that everyone should have definite knowledge as to the cause of preventable disease and the general spread of information on this subject is not the least valuable part of the work of the society. The Earl of Mount Edgcumbe who presided over the annual meeting which was lately held at Plymouth gave in his opening speech a *résumé* of some of the methods by which pulmonary tuberculosis is spread, and this information generally disseminated by means of the western morning papers is likely to be productive of unmixed good. According to the annual report given by the Executive and Sanatorium Committee of the society the total number of deaths from pulmonary tuberculosis which occurred in Devon and Cornwall amounted during last year to 1000. It was estimated that 3000 persons were suffering from the disease, but it is not easy to imagine how reliable statistics on this matter could be obtained under existing circumstances. The committee advise that a sanitary staff shall be appointed to assist the voluntary efforts for the prevention of tuberculosis. It was also suggested that a bacteriological laboratory for the early diagnosis of the disease and a home for advanced cases were wanted. The chief practical work of the committee has been directed to making preliminary observations as to the provision of a sanatorium and it seems that at present there is not entire agreement as to the best method to be adopted, there being a difference of opinion as to whether one sanatorium should be built or whether each of three districts should have a separate sanatorium. This is a matter on which local considerations must of course prevail, for those who give the necessary money will naturally feel that they have a right to decide how it can be spent to the best advantage. The Earl of Mount Edgcumbe stated that the County Council of Cornwall had promised to subscribe to the association to the extent of £50 per annum for two years, but a question has arisen as to the legality of this grant. During the course of the debate which was held on the annual report which was presented to the meeting some interesting remarks were made by Dr. Lionel A. Weatherly, chairman of the Executive Committee of a similar association which has been formed for the counties of Gloucester, Somersetshire, and Wiltshire. Dr. Weatherly stated that his association had decided to build a sanatorium for the accommodation of 60 patients and he was strongly of opinion that the constant supervision of a medical man was necessary to ensure the best results to the patients who were under treatment. The beds were to be allotted to the three counties named and to the city of Bristol, the arrangement being that each of these districts should have a right to send 15 patients. The cost of maintenance of the institution was to be provided in part by a system of insurance under which clubs would contribute a weekly payment according to their numbers. The estimated cost of the sanatorium was £65 per bed per annum and it was expected that the chief trouble would not be in getting the necessary money but that it would arise rather from the excess of patients from whom the selection would have to be made. In the case of poor patients Dr. Weatherly said that they would not ask their friends to contribute more than 10*s.* per week. Boards of guardians, he thought, ought not to be allowed to subscribe for a bed, firstly on the ground that it was undesirable to "mix up different classes of poor patients," and secondly, because guardians could treat their patients "in the workhouse grounds." There are, it is to be feared, in Devon and Cornwall many poor patients who could not afford a payment of 10*s.* per week, a sum which in some places is the exact amount of the weekly wages of a labourer. After a long discussion it was proposed that separate committees should be formed in Exeter, Plymouth, and Truro, with a view to take measures to establish, and eventually to control and to manage, a separate sanatorium for each of the three districts. The mayor of each of the towns named was to be asked to convene a public meeting for the purpose of appointing such committee, and each committee was to act independently. As we have stated, the meeting differed as to whether there should be only one sanatorium or three separate institutions, and it was finally resolved that this question should remain undecided. Local and financial as well as sentimental reasons will doubtless affect the decision ultimately made as to the place or places selected and the solution of this question can be confidently left to those who are acquainted with all the circumstances.

THE CHOICE OF CLIMATE IN PULMONARY TUBERCULOSIS.

ONE of the most frequent questions that a physician has to answer is as to the climate that should be selected for the residence, temporary or permanent, of a patient suffering from pulmonary tuberculosis. The views of physicians have changed considerably with the lapse of years as to the mode of life which should be adopted by patients afflicted with this disease. At one time warm climates were recommended, at another cold, dry regions were chosen, and within the last few years the "open-air" treatment has led to further modifications in their views, and many authorities contend that numerous situations in this country are quite suitable as sites for sanatoria in which this form of treatment may be carried out. In a paper by Dr. W Gordon, entitled "The Practical Choice of Climate in Phthisis," which will be found at p. 1677 of our present issue, the position of climate in its relation to tuberculosis is carefully considered. May we here again express our opinion that the term "pulmonary tuberculosis" is preferable to that of "phthisis" as expressing in exact terminology the nature and site of the disease? Dr. Gordon briefly reviews some points in the controversy which he aptly terms "sanatorium *versus* climate," and argues, quite soundly, that it would be an act of folly to discard the assistance which a climate of proved value can afford to rational treatment, and quotes statistics demonstrating the results that have been obtained in the different "stages" of the disease in various climates. We believe that many fallacies have probably crept into these figures owing to the want of unanimity in deciding as to the meaning of the "first, second, and third stages" respectively of pulmonary tuberculosis; but with that point we are not at present concerned. The remarks to which we would particularly draw attention are those on "home climates." These are eminently worthy of perusal. Dr. Gordon says that sites chosen for sanatoria should satisfy those conditions which experience has shown to be important for success. He then briefly states such conditions: a dry soil, pure air, abundant sunshine, the absence of wind (especially "wet wind"), the absence of dust, the absence of fog, and the avoidance of the immediate sea-front, by which he does not mean, however, an avoidance of the seashore. These suggestions will recommend themselves to all physicians who have had experience in this form of treatment. Dr. Gordon also urges that those areas should also be selected where there is a naturally low mortality from pulmonary tuberculosis. There is another point that might have been referred to—namely, that the "open-air" treatment is at present mainly open to the wealthy. We trust, however, that the time is not far distant when suitable sanatoria may be built for that class of patients who are unable to afford the fees now requisite for the support of the existing sanatoria. Efforts are already being made in this direction, the Hospital for Consumption, Brompton, being one of the foremost in preparing to establish a branch in the country for the treatment of early cases of the disease.

THE DETECTION AND DETERMINATION OF ARSENIC.

THE recent beer-poisoning epidemic has led to an enormous number of contributions on the chemistry of arsenic, on its detection, and on its determination. And we are by no means sure that the issue has been cleared. Some chemists are in favour of one method and some in favour of another, fallacies are pointed out in methods previously held to be exact, and discarded methods have come to the front again, being, as it is asserted, made more accurate by some modification in detail. Again, even assuming that we have a certain and trustworthy method for the detection of arsenic we yet await a consensus of opinion as to the method which will give accurate quantitative results in cases where the arsenic present is in infinitesimal amount. All contributions towards the elucidation of this aspect of the problem must be welcomed, for the issue is of the utmost importance. We are glad, therefore, to find that the council of the Society of Chemical Industry have thought it desirable to republish in pamphlet form the papers, discussions, and abstracts which have recently appeared on this subject in the columns of the society's journal. The reprint is most instructive and should be of the greatest value to those possessing a practical interest in the subject. It furnishes at once a guide to the best methods for detecting and determining arsenic and the other poisonous elements associated with it. It contains also abstracts of analytical methods from various scientific publications. The publication, too, of the scientific discussion on the subject is most valuable. Some idea of the contents of the reprint may be gained from the following synopsis:—The Determination of Arsenic and Antimony in Cupreous Materials; the Discussion on the Occurrence and Detection of Arsenic in Manufactured Products at a Meeting of the London Section of the Society; the Effect on the Marsh Test of some Commercial Products containing Selenium and Tellurium; Arsenic in Coal and Coke; the Detection of Arsenic in Beers, Brewing Materials, and Food; the Discussion (at the Manchester Section) on the Need of a Standard Test for Arsenic; the Discussion on the Presence of Arsenic in Beer (Nottingham Section); the Presence of Arsenic in Beer (New York Section); the Determination of Minute Quantities of Arsenic in Coke (Nottingham Section); and Arsenical Beer and Malt (Yorkshire Section). An interesting addition to the literature of the subject is the original description of Marsh's test in the author's own words, together with the modifications proposed by Berzelius, Fresenius and von Babo, and also by Otto. From a perusal of this reprint we do not seem to be nearer to the solution of the problem as to whether arsenic *per se* is responsible for the whole of the trouble. The interesting facts, however, have been brought out that a penicillium can extract arsenic and that a sample of Bostock's sugar has been found to develop a greenish mould and to give off an odour of garlic with just a suggestion of phosphorus. A word of thanks is due to the council for publishing in separate and convenient form this interesting contribution on the detection and determination of arsenic. Copies may be obtained from Messrs. Eyre and Spottiswoode, East Harding-street, E.C.

HYGIENE IN GERMAN SCHOOLS.

IT is generally admitted that continental schools, although their educational reputation may be well-deserved, nevertheless leave much to be desired from a hygienic point of view. We are therefore glad to observe that in Germany a movement is in progress for the improvement of the hygienic condition of schools throughout the empire. The Allgemeiner Deutscher Verein für Schulgesundheitspflege (General German Association for the Promotion of Hygiene in Schools) has been in existence for rather more than a year and held its second annual meeting at Wiesbaden on May 31st, when the following interesting subjects, among many others, were discussed: (1) the new Prussian school reform in relation to school hygiene; (2) the general conditions of school hygiene, with reference to Wiesbaden in particular; and (3) school hygiene in relation to infectious diseases, especially tuberculosis. That this association meets a want is now recognised, for the *Berliner Tageblatt* of May 25th announces that an association of very similar character and aims has quite recently been founded in Berlin.

GWYNNE *v.* GREVILLE.

AN interesting case has recently occupied the attention of the Lord Chief Justice and a special jury in the Court of King's Bench. The action was brought by Mrs. Agnes Gwynne and her husband against the Medical Electro-Thermic Generator Company, Limited, and Mr. A. E. Greville. The latter gentleman is a solicitor and the managing director of the defendant company, being also the inventor and patentee of the bath. Put shortly, it is an apparatus whereby dry highly-heated air can be applied to a limb or other parts of the body. Mrs. Gwynne had two baths which were applied to her legs without any harm arising. During a third bath, which was applied to other parts of the body, Mrs. Gwynne was severely burned owing to the bath not having been properly packed. Evidence was given that enough lint was sent to pack the bath properly, but evidence was also given to the effect that no lint was sent. Whichever statement was correct it is obvious that the lint was not used. The bath was applied by a nurse whose sole experience of such baths was that she had been presen[illegible] the giving of the first two baths. It is fair, however, [illegible] mention that Mr. and Mrs. Gwynne objected to pay[illegible] the fee for the experienced nurse sent out by [illegible] company, and preferred their own. At the third bath Mr. Greville, jun., was present, but he did not see for himself whether or not the bath was properly arranged, but merely asked Mrs. Gwynne if she was, properly packed. She replied in the affirmative and he then turned on the current. In the end the jury found for the plaintiffs with one farthing damages. The personal liability of Mr. Greville was not considered but only that of the company. We are sorry for Mrs. Gwynne, but the case is only one more example of the foolishness of making use of powerful agents without medical supervision. The lesson which it teaches is, to our minds, that medical men should not only be content with advising the application of such remedies, but should supervise their application. The company, too, would be well advised if they were to refuse to apply their apparatus without the supervision of the patient's medical man, or at any rate of some one delegated by him.

DINNER TO SURGEON-GENERAL JAMESON, C.B.

WE are glad to be able to announce that at a recent meeting it was determined that a complimentary dinner should be given to Surgeon-General Jameson, late Director-General of the Army Medical Service. On another page we print a list of names of distinguished and representative members of the profession who are interesting themselves in the movement. The list already includes the names of the President of the General Medical Council, the Presidents of all the various Royal Colleges of Physicians and of Surgeons in the United Kingdom, many well-known members of the staffs of English, Scotch, and Irish hospitals, and most of the gentlemen who served as consulting surgeons to the forces in the war in South Africa. Such a compliment as is implied by this dinner cannot fail to be gratifying to Surgeon-General Jameson, testifying as it does to the high appreciation in which he is held by the whole body of the profession to which he belongs. We trust—indeed, we feel sure—that the gathering will prove a brilliant success.

THE REDUCTION OF TEMPERATURE IN FEVER BY "EVAPORATION BATHS."

IN the *Journal of the American Medical Association* of May 18th Dr. Francis H. Williams describes a method of reducing temperature in fever by "evaporation baths," which he claims are much more comfortable than the ordinary cold bath. The method is similar to that which has been used for many centuries in hot countries to cool drinking-water. To ascertain its efficiency Dr. Williams took a large bottle holding about a gallon of water at a temperature of 104° F. and wrapped it in surgical gauze which he sprinkled with water at the temperature of the room, at the same time continuously fanning the bottle with an electrical fan. He found that the water in the bottle could be cooled in half an hour about 24°F. below its initial temperature of 104° F., the temperature of the air in the room being 70° F. He also varied the number of layers of gauze covering the bottle and found that one or two gave better results than a greater number. He also compared electrical fanning with hand fanning and found that the temperature was reduced much more by the former. In private practice hand fanning is quite feasible, in a hospital the electrical method is better. To compare the effects of ice water with warm water, Dr. Williams placed two gauze-covered bottles in the same current of air and kept one wet with water at 100° F. and the other with ice water. At the end of half an hour the difference in temperature of the bottles was only 1° F. Hence the slight increase in cooling obtained by sprinkling the patient with cold instead of warm water does not counterbalance the discomfort of the former. Moreover, the warm water has the advantage of attracting the blood to the surface of the body. The method of giving the bath is as follows. A rubber cloth or woollen blanket is put under the patient. Strips of coarse gauze are then placed on him in a single layer sufficient to cover three-fourths of the legs, arms, and trunk. The gauze is sprinkled with water at a temperature of 110° F. and is kept wet, and the patient is fanned. In the first bath it is well to use a pint of water and in subsequent baths to be guided by the effect of the previous one. The time required for evaporation varies with the amount of moistening in the air. It is better to be guided by the quantity of water evaporated than by the time taken. The doors of the room should be kept open and the windows also in warm weather as long as the temperature is 102 °F. or more. The patient should have as little clothing as possible, only a sheet, and in private practice he may be without covering. The average reduction in temperature obtained by 22 baths given in July to patients suffering from typhoid fever was 2·6°; the time required for each bath varied from 15 minutes to half an hour and the amount of water used was about a quart. The temperature was taken in the mouth and the maximum reduction was sometimes not obtained for one or even two hours after the bath. Once the temperature fell 4° and once 5°. In giving these baths the possibility of weak patients collapsing should be borne in mind. Dr. Williams has used this method with great success in typhoid fever and pneumonia. The delirium became less and the patient slept better. The following case is an example. A strong man had typhoid fever with a temperature frequently above 103° F. during three weeks. He was given the baths twice or thrice a day, or whenever the temperature reached 103°. Each bath lasted about half an hour and about a quart of water was used. The average reduction of temperature in ten baths was 2·2°.

"TO KILL THE INSECTS."

AMONGST many popular fallacies none, perhaps, is more pernicious or more tenaciously held than that the addition of spirits to water "kills the insects in it." While some doubt is entertained as to the character of plain water, yet all risk of swallowing germs is supposed to be avoided by drinking the water plus an addition of whisky or other spirit. In other words, the whisky is assumed to sterilise the water and to make it germ-free. It does nothing of the kind. Some organisms, and certainly their spores, will live in alcohol of nearly 75 per cent. strength, which is considerably over the strength of most spirits consumed. The common alcoholic strength of whisky is about 40 per cent., of brandy 42 per cent., and of rum not usually more than 60 per cent. Even supposing, therefore, that these spirits are consumed "neat" no security from germ life would necessarily be gained. It is quite certain that microbes can live and thrive in the ordinary mixed drink of whisky-and-water, the average amount of alcohol in a tumblerful of whisky-and-water, in the proportion usually adopted, being not more than 10 or 11 per cent. Bacteriological investigations have shown that most germs are not affected by a liquid containing 22 per cent. of alcohol, whilst their corresponding spores are unharmed in 83 per cent. alcohol. Alcoholic drinks therefore cannot be regarded as effectual destroyers of microbe life, and, further, bacteria after a time seem to get accustomed to alcohol and to become proof against any antiseptic action that it originally may have possessed. But whisky is often mixed with mineral or aerated water, and in this case there is another factor to deal with—namely, carbonic acid gas. There is no doubt that carbonic acid gas dissolved under pressure in water has a marked antiseptic action, for aerated waters have been found in many cases to be sterile. It would appear, however, that the germicidal action of the gas is slow, and thus natural mineral waters in which the gas has been in very long contact with the water are more likely to be germ-free than freshly and artificially impregnated waters. It is probable that it is not carbonic acid gas that is *per se* destructive to germs, but the definite compound which it forms with the water—namely, true carbonic acid. It is well known that mineral acids are germicides, and in many respects water which is highly charged with carbonic acid gas behaves as a mineral acid. The highly resistant anthrax bacillus and its spore are not, however, affected by carbonic acid, but according to the results of several scientific inquiries the gas in mineral waters is certainly destructive to the pathogenic bacteria—as, for example, those of typhoid fever and cholera. It would be rash, however, to place confidence in either alcohol or carbonic acid as safeguards against pathogenic organisms or to regard whisky-and-water as safer than plain water, while the addition of soda-water is not necessarily to be relied upon to remove bacterial taint.

THE UNIVERSITY OF LONDON.

THE organisation of the University is now practically completed so far as its senate, academical council, faculties, and members of convocation are concerned, and these bodies are engaged in drawing up new regulations for the future conduct of the University. The medical schools have been asked to consider if any, and which, of the preliminary scientific medical studies can be concentrated at one or more centres, but the difficulties in regard to any effective concentration are very obvious. Technical schools for engineering in West Ham and for tanning in Bermondsey have been strongly urged by a correspondent in the *Times*, but assuredly the senate will first deal with university training and scientific research, leaving technical schools in so-called "applied science" to be founded afterwards. The University of London must be truly scientific in its training and methods.

THE LIVERPOOL SCHOOL OF TROPICAL MEDICINE.

THAT energetic society the Liverpool School of Tropical Medicine is sending out another expedition to Sierra Leone. At present the members of the expedition are Major Ronald Ross, I.M.S (retired), F.R.S., and Dr. Logan Taylor, and they will endeavour to ascertain whether mosquitoes of all kinds can be largely reduced in numbers by a year's effort at a reasonable price. A Glasgow donor has given a sum of £1000, and passages, together with plant for mosquito killing, such as oil, cement, chlorine compounds, and insect fumigators, have been provided by Mr. A. L. Jones, Mr. John Holt, Mr. Max Muspratt, Messrs. Hignett Brothers, and others. There are funds enough in hand to maintain, if necessary, 30 native assistants, and measures have been devised for accurately gauging the decrease in the number of mosquitoes. The expedition sails by the *Axim* to-day (Saturday). On June 6th a dinner was given by Mr. A. L. Jones, the president of the school, when a number of guests met at the Adelphi Hotel, Liverpool, to wish Major Ross and his companion good-bye. Mr. Jones presided and among the guests were the Lord Mayor, the Lord Bishop of Liverpool, Professor Rubert Boyce, Surgeon-General Harvey, Dr. H. E. Annett, Dr. Fielding Ould, the United States Consul, the French Consul, the German Consul, and many others. After the royal toasts had been given the chairman proposed "The Expedition," coupling with it the names of Major Ross and of Mr. Swanzy. He pointed out how much the Liverpool School of Tropical Medicine had already done and paid a warm tribute to the work of Professor Boyce. The expedition that was about to start was one of the most important that had ever left these shores and any discoveries which might be made would be used for the benefit of the whole world. We must congratulate Liverpool upon the energy and munificence of her citizens. Such good work has already been done in the matter of malaria that we may hope at no very distant date to see that West Africa has lost the unenviable title of "The White Man's Grave." All honour to those who spend their money and their time and risk their lives in the attempt to bring about so desirable a result.

MR. GEORGE HERRING'S MUNIFICENCE.

AGAIN we have to chronicle the princely generosity of Mr. George Herring to the Metropolitan Hospital Sunday Fund. The Lord Mayor in his letter which we publish to-day announces that Mr. Herring for the third consecutive year has contributed a donation of £10,000 to the Fund. What such a sum as £10,000 means when devoted to the needs of the suffering poor, what it represents in succour to them in their sorest need, can hardly be imagined. And the value of the gift is enhanced in our eyes by the method of its giving. Simply and without condition Mr. Herring hands this great sum to the Metropolitan Hospital Sunday Fund, feeling certain that in this way it will be distributed so as to secure for the objects of his charity the maximum good. This is exactly the view that we want the public to take. In the Metropolitan Hospital Sunday Fund and the Prince of Wales's Hospital Fund for London we have two institutions which by minute and careful investigations arrive at an intimate knowledge of the work done by all the London hospitals. They know the proportionate needs and deserts of all the institutions, so that money distributed through their agency is sure to reach the place where it will do the most good.

PLAGUE IN CAPE COLONY.

A TELEGRAM received at the Colonial Office on June 6th gives the following statistics of plague at Cape Town for the week ending June 1st:—Fresh cases: Europeans, 2; coloured persons, 5; Malays, 0; Indian, 1; Chinese, 0; natives, 3; total, 11. Corpses found: Europeans, 2; coloured persons, 3; Malays, 0; Indian, 1; Chinese, 0; natives, 1; total, 7. Deaths (including corpses found): Europeans, 2; coloured persons, 4; Malays, 0; Indians, 2; Chinese, 0; natives, 2; total, 10. The total cases up to June 1st are as follows: Europeans, 173; coloured persons, 309; Malays, 48; Indians, 11; Chinese, 1; natives, 142; total, 684. The total deaths have been: Europeans, 57; coloured persons, 159; Malays, 35; Indians, 8; Chinese, 0; natives, 59; total, 318. The area of infection remains the same. Seven cases have so far occurred at Port Elizabeth, including 1 suspect.

THE BRITISH CONGRESS ON TUBERCULOSIS.

ALTHOUGH the details of some of the "functions" are not yet completed, a number of arrangements have already been made. The principal railway companies in Great Britain have consented to issue return tickets at a single fare and a quarter, minimum 1*s*. Such tickets will be available from the day before to the day after the Congress, Sunday being considered a *dies non*. On the evening of Monday, July 22nd, the opening day of the Congress, a reception will be held by the Organising Committee in the Queen's Hall, when the band of the Royal Engineers will be in attendance. On Tuesday, the 23rd, Professor Koch will address a public meeting in St. James's Hall, and in the evening a reception will be held by the Lord Mayor in the Mansion House. On Wednesday afternoon, the 24th, Professor Brouardel of Paris will address a public meeting in St. James's Hall at 3 o'clock and from 4.30 to 7 P.M. the Ladies' Reception Committee will give a garden party in the Royal Botanic Society's

Gardens. On Thursday afternoon, the 25th, the Earl and Countess of Derby will give a reception, and on Friday afternoon Sir J. Whittaker Ellis will entertain members and their friends at a river party at Richmond. On Saturday, the 27th, excursions will be arranged to sanatoria and other places of interest and in the afternoon the Duke of Northumberland will give a garden party at Syon House. The work in the various sections will proceed from 9.30 A.M. to 2 P.M. on all days during the Congress, from Tuesday to Friday inclusive. *During the period of the Congress* some of the largest private houses in London with interesting collections of pictures will be thrown open to visitors.

THE BOTTLE IN THE PATH.

"A MOTHER" has addressed to one of our contemporaries a timely and sensible appeal against the practice of throwing away or breaking bottles on the beach at seaside resorts. She quotes the case of her own child whose foot was very seriously injured by treading on a piece of broken glass thus carelessly thrown aside. Her proposal that this matter should be dealt with by local councils is an eminently practical one. If, as she suggests, appropriate notices were freely exhibited and bins were placed at intervals near the beach for the reception of empty bottles and the like the rambling tripper would have no excuse for leaving such dangerous mementoes in the path of barefoot children. It should not, indeed, be needful to provide such receptacles and any such concession to the careless convenience of individuals must be a mere matter of favour. No one has a right to throw about a public place any object which may cause injury to the passer-by. A prohibitory notice, or as many as may be advisable, with a penalty included, would, however, be no *more than fair in the public interest. It* is well to remember that the dangerous practice referred to is not confined to the sea beach. How commonly does one meet with broken glass and bottle-ends recklessly strewn about on suburban roadways. The feet of horses are in constant danger from this cause. The care of roads and streets is generally understood to be included among the duties of borough councils. It seems to us, therefore, not a little strange that means are not used by these local authorities *to prevent this culpable* and mischievous habit of throwing glass in the way of passengers and traffic. A by-law on the subject, especially after being suitably illustrated with a few convictions, would materially aid in assuring the safety of a long-suffering population and its four-footed servants.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

AT a recent meeting of this society, the President, Dr. F. W. Pavy, LL.D., F.R.S., announced that the society had been honoured by a gracious intimation that His Majesty the King would grant its representatives an audience for the presentation of the society's loyal address of condolence and congratulation. Accordingly the President, with Lord Lister (the mover of the address) Sir William S. Church, and Mr. J. Warrington Haward (honorary treasurers), Sir Thomas Barlow and Mr. Clinton T. Dent (honorary secretaries), and Mr. A. Pearce Gould (late honorary secretary), attended at St. James's Palace on March 20th. The deputation was honoured by a private audience, His Majesty receiving the address personally and handing the President the following reply :—

> I have received with the greatest satisfaction the loyal and dutiful address which you have laid before me to-day, expressing devotion to my throne and person and sympathy with me and my Royal consort in our grief.
>
> The spontaneous expressions of loyalty and goodwill which have reached me from all parts of my empire and all classes of my subjects have been a powerful encouragement to me in undertaking the cares and labours surrounding the throne which I have inherited from my beloved mother; and with her example before my eyes I shall spare *no effort* to secure the continuance of the prosperity which attended her reign.

The President, with the proposer and seconder of the address, kissed hands, and the other members of the deputation were introduced to His Majesty by the President. A few days later the following letter was received :—

> Buckingham Palace,
> 27th March, 1901.
>
> GENTLEMEN,—I have the honour to inform you that I have submitted to the King your *letter of* the 21st *inst.*, and in reply I am commanded to say that His Majesty is pleased to accede to the request contained in it to grant his patronage to the Royal Medical and Chirurgical Society.
>
> I am, Gentlemen, your obedient servant,
> D. M. PROBYN, General,
> Keeper of His Majesty's Privy Purse.

Since then the society has been informed that the King would be graciously pleased to add his signature to the roll of the society.

THE OFFICE OF DIRECTOR-GENERAL OF THE ARMY MEDICAL SERVICE.

ON application to the Secretary of State for War we have been courteously informed that "no appointment has yet been made to the post of Director-General, Army Medical Service." The matter is one of great interest to the medical profession as a whole, and we trust that there may not be any prolonged *delay in making the appointment.* The fact that the post has already been vacant for a considerable time has not unnaturally given rise to various doubts and conjectures which it is desirable should be set at rest as soon as possible. We trust, therefore, that the War Minister may see his way promptly to come to a decision and to make public announcement of his decision at an early date.

IT is announced that the following have been appointed on a committee to consider the amendment of the first schedule annexed to the Pharmacy Act, 1868:—The Right Hon. Sir Herbert Maxwell, M.P., F.R.S. (chairman), Mr. Alexander Cross, M.P., Professor T. E. Thorpe, C.B., F.R.S., Professor W. A. Tilden, F.R.S., Dr. Thomas Stevenson, Mr. William Martindale, F.C.S., and Mr. J. H. Harrison.

SIR HENRY E. ROSCOE Vice Chancellor of the University of London, will on July 10th formally open the new Pathological Institute at the London Hospital. Subsequently, in the library of the school, prizes will be distributed to students and nursing probationers.

SIR MICHAEL FOSTER, K.C.B., M.P., will present the awards at the annual presentation of prizes to the students of the medical school of St. Mary's Hospital on Thursday, June 27th, at 4 P.M.

THE annual banquet of the Association of British Postal Medical Officers will be held in the Whitehall Rooms of the Hotel Métropole, London, S.W., on Wednesday, July 3rd, at 7.30 P.M.

THE ROYAL BRITISH NURSES' ASSOCIATION.—On June 9th Sir James Crichton Browne presided at the annual meeting of this association at the Imperial Institute. Mr. J. Langton, the treasurer, presented the financial statement, reporting that the income compared favourably with the receipts of previous years. Of the £1552 received from the café chantant at the Hotel Cecil, £1350 had been invested and the interest would be devoted for the benefit of nurses who might be in need of assistance. Mr. Langton asked for increased support for the Settlement Fund, the object of which is to provide a home for retired nurses unable longer to pursue their calling.

THE ELECTION TO THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ON Thursday, July 4th, the Fellows of the Royal College of Surgeons of England will exercise their privilege of electing to the Council three of their number. As is the case with most other privileges, this is closely associated with a duty, and it behoves all Fellows who appreciate the importance of the trust committed to their charge so to vote as to benefit in the highest degree the science and art of surgery, the medical profession, and the public at large. It may safely be said that no other medical body in this country has more influence on the trend of medical education as the Royal College of Surgeons of England, and this is due both to the large number of its *alumni* (for there are 20,000 Members of the College and almost 1500 Fellows) and to the position it has attained in the estimation of the people.

The government of this large and important corporation is vested in the Council of 24 members who must be Fellows. They are elected by the whole body of Fellows and therefore the control of the College is practically in the hands of the Fellows should they choose to exercise it, for every year there are at least three vacancies on the Council to be filled at the election in July, and if the Fellows were alive to their opportunities and responsibilities they could have a real voice in the government of the College, but many of them know little and care less of what occurs in Lincoln's Inn Fields, and the many crying needs of the College are unfulfilled and neglected. At one time there was some excuse for the practical non-participation of the great body of the Fellows in the election of the Council, for less than 20 years ago it was necessary for the Fellow to attend in person to record his vote, and, being much occupied with many calls on their time, it was not surprising that a large proportion of even the London electors were unable to be present at the College at some time in the two hours during which the poll was open; and for country Fellows voting was still more difficult, for the journey to and from London in many cases occupied the greater part or even the whole of the day. Now, however, the arrangements are very different, for the Fellow can vote by post, and so very easy has it been made for him that it is now not even necessary for him to apply for a balloting paper, for it is sent unasked to every Fellow of the College in the United Kingdom whose address is known. This paper has merely to be marked, signed, and the signature witnessed, and the paper posted to the secretary, but so apathetic are the Fellows, so regardless of their privilege, that at no election have more than half the Fellows recorded their votes. Full and clear directions are given with each balloting paper, and the Fellows are a highly educated body of men, yet at every election some votes are lost by incorrect fulfilment of the very simple rules laid down. Balloting papers are returned without signature, without any indication as to the candidates voted for, or with too many names.

There is yet another and a most striking indication of the apathy of the Fellows with regard to the work of the College. A few years ago it was felt that meetings of the Fellows should be held from time to time at which subjects of importance to the Fellows and to the College could be discussed and at which the Council could lay before the Fellows important matters for the purpose of receiving their opinion. After years of work the institution of regular meetings of the Fellows apart from the Members of the College was obtained from the Council, and two meetings were appointed to be held every year in January and July. For a few meetings the numbers present and the subjects discussed justified the establishment of the meetings. The numbers, however, steadily dwindled and for the last three years it has been found impossible to obtain the presence of the 30 Fellows necessary to form a quorum. Time after time the President, the Vice-Presidents, and a few Members of Council and other Fellows have assembled in the theatre of the College and waited for a quorum, but they have waited in vain. As a result the Council has decided to do away with the January meeting, and it is possible that the July meeting also may be discontinued if the Fellows do not display more desire for its existence. The Council would still possess the power of calling a meeting of the Fellows when it desired to lay before them any subject of special importance, but this is very different from regular meetings.

The Fellows form a large body of highly educated and trained surgeons and their collective wisdom on matters both of College politics and the affairs of the whole profession would be well worth obtaining. There are especially two subjects on which the Fellows should express an opinion, both for the guidance of the Council and for the sake of the medical profession. The first matter on which their opinion is desired is the question of the representation of the Members of the College on the Council. It may be said that the Fellows have already voted on this subject. It is true that four years ago the Council sent round to the Fellows a series of questions relating to the representation of Members and that a majority of the replies received were inimical to the granting of any representation, but the total number of answers received was so small that no true opinion of the real feeling of the whole body of Fellows can be based on the voting of a small minority. We do not propose on this occasion to recapitulate the arguments in favour of granting to the Members some share at least in the government of the College; these arguments have often appeared in the pages of THE LANCET and must be fresh in the minds of many of our readers, but we would urge that in the decision of this question the voice of the whole body of Fellows should be heard. The other subject on which the Fellows should assist the Council in coming to a decision is the question of the connexion of Members of the College with medical aid associations. Again and again at the annual meeting the Members have called upon the Council to put forth a pronouncement that it considers the holding of an appointment under a medical aid association as a sufficient cause for the recall of the diploma and thus to follow in the footsteps of other colleges. On this point also the ideas of the Fellows should be of the greatest value and they should feel that they are called upon by their position to give to the Council the benefit of their opinion.

Unless the Fellows by one means or another indicate what they think and feel on these important points it is not possible for the Council to decide on them in a manner consonant with the ideas of the body of Fellows as a whole.

The three members of the Council who this year retire by rotation are Mr. N. C. Macnamara, Mr. A. W. Mayo Robson, and Mr. W. Watson Cheyne. Mr. Macnamara does not intend to offer himself for re-election, but Mr. Mayo Robson and Mr. Watson Cheyne will again be candidates. Mr. Mayo Robson is one ofthe most widely-known of provincial surgeons and no better representative of the provincial Fellows could be found. Mr. Watson Cheyne is recognised as one of the most able exponents of antiseptic as opposed to aseptic surgery. Both of these gentlemen have done good work for the College during the time they have been on the Council, and the Fellows cannot do better than re-elect them as will probably be the case. There are six other candidates: Mr. H. H. Clutton of St. Thomas's Hospital, Mr. Jordan Lloyd of Birmingham, Mr. Clement Lucas of Guy's Hospital, Mr. J. H. Morgan of Charing Cross Hospital, Mr. C. Mansell Moullin of the London Hospital, and Mr. Bland-Sutton of Middlesex Hospital. The only one of these who is a provincial candidate is Mr. Jordan Lloyd of Birmingham, and as this important medical school is unrepresented on the Council there is much to be said in favour of Mr. Jordan Lloyd's claims, but there are already five provincial representatives on the Council and it will probably not be thought desirable that provincial Fellows should be represented by more than five members out of the 24. St. Thomas's Hospital has at present only one representative, and as it is a large and important school it would not be unreasonable that Mr. Clutton should be elected. He is widely known as an able surgeon and an energetic administrator. Mr. Bland-Sutton comes from Middlesex Hospital, which has already two representatives, and therefore, considering the size of the school, it would be certainly unreasonable at present to increase its representation. Guy's Hospital, with its two representatives, may perhaps claim to have a third, and no fitter surgeon could be chosen than Mr. Clement Lucas, but it seems undesirable to increase the number of Fellows from any one school while other hospitals are unrepresented. Mr. Morgan comes from Charing Cross Hospital, which for some years has not been represented on the Council, and this is in itself a strong argument in his favour. His appointment would be a distinct gain to the Council. Mr. Mansell Moullin's election would give another representative to the London Hospital, but this would hardly be unfair, as the school is large.

We hope we have said sufficient to induce the large majority of the Fellows to exercise their power of voting at the approaching election, for we believe that the wider the interest they take in the affairs of the College the better will it be for the College itself and for the whole medical profession.

REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD FOR 1899-1900.

I.

MR. W. H. POWER in his report to the President of the Local Government Board devotes a paragraph to the plague and calls attention to two papers by Dr. R. Bruce Low which are printed amongst the appendices. Dr. Bruce Low has devoted special attention to the course of the spread of the disease, and the full results of his researches will be published at some future time in a separate form. Of the appendices relating to the plague which are published in the present volume, the first (Appendix A., No. 14) is a "summary of the progress and diffusion of plague during 1899," while the second is a memorandum on the precautionary measures which were taken in 1899 to prevent the importation of bubonic plague into England and Wales and on certain cases reported as plague or suspected plague.

During the year 1898 the parts of the world which suffered most from plague were China, India, Japan, some parts of Asiatic Russia, Arabia, East Africa, and Madagascar. During the same year three deaths from plague took place in Vienna, but these cases derived the infection from the bacteriological laboratory and there was no further spread of the disease in Austria. During the year 1899 the area of infection was largely increased, places in Europe, Asia, Africa, America, and Australia all coming within its sphere of influence.

China suffered greatly, but statistics as to the numbers affected and as to the number of deaths are not accurate, for Chinese methods of reporting and registration are most unsatisfactory—a fact which will cause little surprise. Hong-Kong has not been free from the plague since the year 1894, but the mortality has varied within very wide limits. The number of deaths reported have been as follows: in 1894, 2550; in 1895, 36; in 1896, 1078; in 1897, 18; in 1898, 1175; and in 1899, 1415. Japan did not suffer from any great outbreaks and the cases were apparently imported from China—most of them from Hong-Kong. The inhabitants of Formosa suffered considerably, the Japanese official statement showing that there were no less than 2633 cases and 1974 deaths. An outbreak also occurred in the Philippine Islands, and over 60 cases are said to have occurred in the Sandwich Islands. Numea in New Caledonia was affected towards the end of the year, the first sufferers being Kanakas and Tonkinese labourers. The disease afterwards (in 1900) spread to the nickel mines of Nepoui which are worked by convict labour. It was towards the end of the year 1899 that sporadic cases were first diagnosed at Adelaide, South Australia, and at Sydney in New South Wales, and about the beginning of the year 1900 cases were recognised at Melbourne in Victoria and at Brisbane, Rockhampton, Townsville, Cairns, and Ipswich in Queensland. A few cases also occurred in Western Australia and a single one was reported from New Zealand. At the Straits Settlements the disease occurred as early as May, 1899. At Penang no Europeans were affected, a few of the sufferers were Malays, but most of them were Chinese. It is thought that the infection was brought from South China and it is known that a large number of coolies arrived thence shortly before the outbreak. The number of deaths recorded was 37. At Singapore there was no epidemic, but a few cases were landed from ships.

A severe epidemic visited India. The plague was first recognised in the city of Bombay in the year 1896 and from that date the place has never been free from it. During the summer fewer cases have occurred. The mortality has been highest during the month of March and lowest during the months of June and July. The following table gives the number of cases and of deaths reported and the case-mortality per cent. for the years 1896 to 1899:—

Year.	Plague cases	Plague deaths.	Case-mortality per cent.
1896	2,530	1,801	71·1
1897	11,963	10,232	85·7
1898	19,863	18,160	91·2
1899	19,484	15,830	81·3
Total	53,840	46,023	85·4

The Presidency of Bombay has suffered severely and the number of those affected has increased year by year since 1896. This will be readily seen in the subjoined table which may be profitably compared with the corresponding one given above for the city of Bombay. The table shows the number of reported cases and of deaths and the case-mortality in the Presidency of Bombay (not including the city of Bombay) for the years 1896 to 1899, both inclusive.

Year.	Plague cases.	Plague deaths.	Case-mortality per cent.
1896	367	273	74·3
1897	49,125	36,707	74·7
1898	90,506	68,061	75·2
1899	131,794	101,485	77·0
Totals ...	271,792	206,526	75·8

The districts which suffered most severely were Belgaum, Dharwar, Karachi, Kholapur, Poona, Satara, Surat, Thana, Nasik, and Bijapur. In the city of Poona there were no less than 5316 deaths in five weeks and during the epidemic the total mortality from the disease was over 10,000. In Karachi there were over 2000 deaths. In the city and suburbs of Calcutta there were over 3000 cases and 2745 deaths in the year 1899, whereas during the previous year the number of the recorded deaths from the disease amounted to no more than 192. In the Presidency of Bengal during the year 1898 only 16 deaths from plague were officially reported from the district not contained in the city of Calcutta, and during the year 1899 outbreaks were reported from Howrah, from Saran, and from a few other places, the number of cases being 652, and the number of deaths 505. Towards the end of the year there was a severe outbreak at Patna, and during the first half of the year 1900 over 17,000 deaths were reported from that district alone. In the Central Provinces the number of reported deaths during the year 1898 was 129, and with the exception of four, all these cases occurred in the Wardha district. In the year 1899 only 65 fatal cases were reported from Wardha, but the Nagpur district was much more affected, the number of deaths being 460, of which 202 were reported from the city of Nagpur. According to the accounts received the Native States of Central India suffered but little. The Madras Presidency was affected during the early part of the year 1899, the disease being most prevalent in those districts which border on the States of Hyderabad and Mysore, in both of which plague was at the time epidemic. In the city of Madras itself 11 cases and four deaths were reported during the year, but the total number which occurred in the Presidency amounted to no less than 2460 cases, of which 1655 ended fatally. In the State of Hyderabad during the year 1899 there were 5271 cases and 4242 deaths, and of the latter above 2000 occurred during the month of October alone. In the State of Mysore the districts chiefly affected were the city and district of Bangalore, the city and district of Mysore, and the Kholar goldfields. Plague was epidemic in the State during the year and the number of deaths which had occurred up to the end of the year 1899 amounted to 15,697. The disease reappeared in the winter of 1899-1900. Assam has escaped lightly: four fatal cases only were reported in the year 1899 and there has been apparently no spread of the disease. From Burma a single imported case was reported from Rangoon and for Baluchistan three fatal cases only have been notified; there has been no epidemic in either country.

In Persia plague appeared in May, 1899. 40 cases were reported, but in August the outbreak was over. In Mesopotamia four or five cases were recognised.

In Arabia several districts were infected during the year 1899. A case of plague from Karachi is said to have set up an epidemic at Muscat, where 600 deaths occurred. During March and April there were 230 fatal cases at Mattrah. Early in 1900 there was an epidemic at Aden which caused 575 deaths. From Aden the disease was carried by refugees to Berbera in British Somaliland, on the east coast of Africa. Only two fatal cases occurred, the refugees being kept under observation at the Berbera sanitary station. The name of the sanitary officer at Berbera, which is not given in the report, deserves to be put on record. It is probable that his prompt action was the means of saving the colony from a great catastrophe. Assyr in Arabia is a district through which pilgrims to Mecca constantly pass. It was infected with plague in 1899, as it was in many previous years, and the disease must be regarded as being endemic there. Dr. Bruce Low points out that the place is consequently a constant source of danger to the outside world. Djeddah, the chief port of Hedjaz, suffered from plague during the years 1896–97–98, and again during 1899, when its origin was traced to pilgrims. Records as to the number of fatal cases are not to be relied on, and according to the sanitary inspector of the district the numbers given were much understated. It seems, also, that early cases of the plague were called influenza. The Turkish authorities have not published official accounts of the outbreak and details are entirely wanting.

In Africa many places have been affected—Egypt, British and German East Africa, Lorenço Marques, the Transvaal (one imported case which proved fatal), Mozambique, and Grand Bassam (a French possession in East Africa). In May, 1899, it was officially recognised that plague was present in Alexandria, and during the year 93 cases were certified, the number of deaths being 45. Of the cases 65 occurred in natives, 25 in Greeks, two in Frenchmen, and one Italian only was affected. The origin of the outbreak could not be traced. In May, 1900, the disease reappeared. The first cases were traced to people engaged in rag-picking.

In the Portuguese colony of Lorenço Marques plague is supposed to have occurred first in a Parsee whose death was certified as having been due to "galloping consumption." The infection is supposed to have been imported from Madagascar. The Portuguese authorities were not desirous to spread exact knowledge as to the occurrence and incidence of the disease; the Governor-General assured the foreign Consuls that there was no plague in the district, and the medical men were forbidden to certify that patients had the plague.

Madagascar suffered from outbreaks of the disease in the years 1898 and 1899; no details of the epidemic are available, but it is said that only one European has been affected.

At the Island of Réunion cases of *lymphangite infectieuse* were reported in April, 1899, and a question arose as to the exact nature of the disease. Dr. Thiroux, a colonial medical officer, obtained the opinion of Dr. Roux of the Pasteur Institute, who succeeded in finding the true plague bacillus. From this fact Dr. Thiroux concluded that *lymphangite infectieuse* and plague are identical. On this matter Dr. Bruce Low pronounces no opinion.

It has been already mentioned that plague has been called "galloping consumption," and it may be convenient here to give other names by which the disease has been lately called in various parts of the world. It seems probable that in Mauritius it has been diagnosed as "malarial fever." In Lisbon it was at first called "the Indian typhoid." In Paraguay it was named "malarial fever" and "typhus." In Brazil it was called variously "pernicious lymphangitis," "adenitis lymphatica," and "yellow fever with buboes," and at Rio Grande do Sul it had amongst other names that of "virulent influenza." Cases of plague appear also to have been diagnosed as "beri-beri."

A brief reference must be made to the course of the plague as it affected America. Few cases appeared in the northern part of the continent. A single case was imported to New York and several were landed at Port Townsend. In neither of these instances was there any general spread of the disease. At San Francisco a few cases occurred in the Chinese quarter in March, 1900, and some deaths ascribed to pneumonia which occurred in Montana were possibly cases of plague. From Mexico accounts of a mutually contradictory nature have been received. There seems little doubt that cases occurred at Buenos Ayres, and that the infection was derived from Oporto. Cases occured at Rosario in the Argentine Republic in January, 1900, but the source of infection is not known. From Rosario the plague was conveyed to Cape Town by means of a forage transport. Buenos Ayres was also affected in December, 1899, and January, 1900, but its existence there was at first denied by the authorities. In Brazil a few cases occurred in Santos in October, 1899, and at San Paulo later in the year. Rio de Janeiro was affected later and 130 deaths from the disease were reported.

In Europe the country chiefly affected in 1899 was Portugal and full accounts of the outbreak in Oporto have been already published, but it has yet to be found by what means the plague reached the country, and although various surmises have been formed they do not appear to have been founded on any positive evidence. The Local Government Board received from the Foreign Office on August 15th, 1899, copies of telegrams notifying the outbreak in Oporto. On the day following the Medical Department of the Local Government Board obtained the sanction of the Board to conduct a port sanitary survey. Three members of the staff, Dr. Thompson, Dr. S. M. Copeman, and Dr. R. J. Reece, were instructed to visit some of the ports at once. Soon afterwards Dr. G. S. Buchanan and Dr. D. Mair were appointed to the survey staff, and Dr. F. St. G. Mivart and Dr. Johnson were instructed to hold themselves in readiness to render additional assistance in case of need. Information was at once sought of the Board of Customs as to which of the English and Welsh ports were most frequently in communication with Portugal and it was found that 16 ports had communications with Oporto and five more with other Portuguese ports. It was thought, considering the possibility of the extension of plague to Spain, that ports trading with all parts of the Peninsula ought to be examined. This added 18 to the number to be inspected and brought up the total number of port and riparian authorities concerned to 39. To all these authorities general and particular advice was given by the inspectors. Attention was called to the necessity for inspecting the shipping and for examining medically those who arrived from infected ports. Further, the necessity for isolation accommodation and for means of disinfection was insisted upon, and the method of disposal of the bodies of patients who might die from plague was discussed. Conferences were held as to the destruction of rats. In some cases the Board on the advice of their inspectors wrote to the port authorities calling their attention to certain sanitary improvements which ought to be made without delay, and as a result prompt action was taken in many cases. A circular letter was sent on August 16th to the port sanitary authorities informing them that there was an epidemic of plague at Oporto and directing special attention to all vessels arriving from that port.

During the course of the survey made by the medical inspectors some of the Customs officers did not genially coöperate with the port authorities, and it was found necessary to communicate with the Board of Customs, who sent a circular to their officers expressing surprise at the past action of some of their number and a clear expression of the certainty which the Board entertained that no trouble arisising from that cause would occur again. The next little difficulty which arose was as to the interpretation of one of the Local Government Board's own Orders (the Order of Nov. 9th, 1896). The questions were: What was an infected port? What was a suspected vessel? What was to be done in case of sick persons who were sent over as British consular passengers but who had no medical certificate? In regard to the latter question the Board of Trade had to be consulted and it was settled that in future medical certificates should be sent in all cases. Another matter which it was found necessary to decide was the meaning to be attached to the word "voyage." It was evident that a ship arriving from a foreign port might in the ordinary course of trade land part of her cargo at one English port and then pass on to another port. A conference was held with the representatives of the Customs, and it was settled that in such a case a vessel at the second or third port of destination should still be held as coming "from foreign," and that the Customs officers should thereupon inform the port medical officer of the arrival of such a ship. The port medical officer on his part was to keep the Customs authorities informed as to what countries were regarded as infected.

Measures were also taken with a view to supply M. Haffkine's prophylactic. With this view consultations were held with officials of the India Office and arrangements were made that a supply of the protective fluid should be sent from India. M. Haffkine happened to be at the time in England, and the medical officers of the Local Government Board received full information from him as to the details of his method of inoculation. A brief description of the prominent symptoms of the plague was drawn up for the use of the captains of those ships which do not carry surgeons on board, and this leaflet is now incorporated in the official log-book. In order to provide for the immediate recognition of any cases of plague which might by chance escape the vigilance of the port sanitary authority, or might occur after the landing of sailors, an officer of the Board inspected the seamen's boarding- and lodging-houses which are situated near the London docks and conferred with the authorities of the chief London hospitals and with the medical officer of the London County Council, and also with the Metropolitan Asylums Board. The Foreign Office were advised by the Local Government Board that it would be well if arrangements were made by which the British representative on the Egyptian Sanitary Board could supply information to the Board as to what diagnoses were arrived at in the case of persons at Moses' Well who were suspected of being infected with the plague. Moses' Well, it may be said, is the Egyptian sanitary station at the head of the Red Sea. In consequence of the absence of any proper official means of communication unnecessary trouble was caused; in one case, for example, the Board only heard indirectly and after a long interval that some patients who had been diagnosed as suffering from plague had not had the disease at all.

It will be readily seen that the measures taken by the Medical Department of the Local Government Board for the prevention of plague in this country were quickly and thoroughly carried out. The arrangements made in conjunction with the Board of Trade and the Customs will also be of use in ensuring the smooth working of any measures which may in future be rendered necessary by any threatened invasion of epidemic disease. It is a matter for congratulation that during the year 1899 no case of plague occurred in this country, and the fact that a considerable number of persons were detained as "suspects" by the port medical officers, as Mr. Power says, "is evidence of the strict scrutiny which they exercised over the arrival of people coming from infected places."

THE CORONERS' SOCIETY OF ENGLAND AND WALES.

The annual banquet of the Coroners' Society of England and Wales was held at the Holborn Restaurant, London, W.C, on June 6th, the President, Mr. Sidney Hacker, coroner for Devonshire, being in the chair. At the conclusion of the banquet, after the loyal toasts had been duly honoured, "The Coroners' Society" was proposed by Mr. Thomas Wakley, jun., who pointed out that the society was founded in 1846, and that during the first year there were 56 members, whereas the number at the present time was 270—practically a five-fold increase during the 55 years of its existence. The society was first formed simply with a view to safeguard the interests of coroners. This, though a very useful and worthy object, was limited to a class, but what was intended at first to be merely for the benefit of a few had come to be of value to the whole community. Amongst other things the work of the society had resulted in much greater uniformity in the carrying out of their duties by coroners in England and Wales and this necessarily meant a great gain to the community. The first president of the society was Mr. (later Sir) John Humphreys who continued in office for many years. He was succeeded by Mr S. F. Langham who filled the combined position of president and treasurer. On his retirement from these offices a biennial presidentship was established which continued to the present time. It was pleasing to think that Mr Langham, on retiring from the coronership of the City of London, the duties of which he had ably discharged for very many years, had been granted by the corporation a pension of £600 per annum, this being the first time a pension had been given. The Coroners' Society, through its council and by the action of individual members, had practically initiated the erection of proper mortuaries, chambers for post-mortem examinations, and coroners' courts, and by means of representations founded on riders to verdicts by juries had brought the necessity for such to the notice of local vestries and parish councils. The society was recognised by the departments of State as a representative body able to afford trustworthy assistance in such matters as statistics, prevention of deaths and accidents, &c. In 1893, in consequence of representations made by the society to the Home Office, the Secretary of State gave directions that any person who was accused of having caused the death of another person should, if he so desired, appear before the coroner, hear the evidence of witnesses, and give evidence himself. Many had availed themselves of this opportunity and in some instances had cleared themselves of the charges brought against them. Practically the society was the pioneer of the subsequent Criminal Evidence Act of 1898. The society, moreover, had been largely instrumental in getting carbolic acid placed on the schedule of poisons, and it had assisted towards the provision of regulations for the greater care of infants, the protection of children from fire by the use of fire-guards, the improvement of dwellings, sanitary and otherwise, the use of safer lamps for paraffin oil, the erection of bridges at level crossings, the inspection of workhouses and laundries, and other important matters. The society, the speaker said, was, he understood, now engaged with a view to lessen the number of uncertified deaths, and also with regard to the registration of still-births, undertakings in which everyone must wish it success. There had just come to light at Birmingham another gruesome object-lesson of the need for further legislation There could be no doubt that by the more efficient, diligent, and complete investigations made by coroners into the causes of death much had been done to safeguard and to preserve human life, and this excellent result was doubtless very largely due to the influence of the society and the example set by its members. In conclusion, Mr. Wakley said that he felt that the honour of proposing the toast had been bestowed upon him because he happened to be a descendant of one who, if he might say so without impropriety, was in his time a respected and somewhat noteworthy coroner—one whose influence as coroner both on the ancient and honourable office itself and on the welfare of the people had been, he ventured to think, wholly for good.—Mr. Sidney Hacker, the President, replied.—The other toasts were "The Imperial Forces," proposed by Mr. Henry White, coroner for Winchester, and responded to by Captain H. Kendall and Surgeon-Lieutenant Colonel Danford Thomas, M.D, coroner for London and Middlesex; "Our Guests," proposed by Mr. H. J. Robinson, coroner for Lancashire, President elect of the society, and responded to by Sir Franklyn Lushington, chief police magistrate for London, who contrasted the office of coroner, founded certainly not later than the time of King Alfred the Great, with that of the civic magistrate which came into existence in the early part of the reign of Queen Victoria, and Mr A. O. Mackellar, chief surgeon to the metropolitan police, who referred feelingly to the sad death of his colleague, Mr Thomas Bond, which had occurred that morning; and "The Officers of the Society," proposed by Mr J. C Malcolm, coroner for Leeds, and replied to by Mr. A. Braxton Hicks, coroner for London and Surrey, the secretary of the society. A vote of thanks was given to Mr Walter Schroder, deputy coroner for London and Middlesex, who had made all the arrangements for the dinner, and was briefly acknowledged by him. In the course of the proceedings a loving-cup was presented by the retiring President, Mr. Hacker, to the society in token of his period of office, and we may add that a coroner's robe was presented to Mr. Hacker.

NEW OPERATING THEATRE AT CARDIFF INFIRMARY.

A new operating theatre in connexion with the Cardiff Infirmary was formally opened on June 6th by Mr. Edmund Owen, F R C S Eng, senior surgeon to St Mary's Hospital.

Although it had been felt for some years that a new theatre was an absolute necessity the management committee of the infirmary, having an ever increasing revenue debt before them, very properly refused to burden the institution still further upon its capital account. Early in the year 1899 Mr. Thomas Webb of Tunbridge Wells, a director of the Ocean Colliery Company of Cardiff, came to the relief of the committee with the offer of a donation of £1000 towards the erection and equipment of a new theatre in memory of his wife, and the architect to the infirmary, Mr. Edwin Seward, F.R.I.B.A., of Cardiff, prepared plans for the building. Upon their completion it was found that if the new theatre was to satisfy the requirements of the present day the cost would be at least £1500, and upon this fact coming to the knowledge of Mr. Webb he very generously increased his contribution to that sum.

The alterations and additions to the building give to the infirmary two operating theatres, a room for the surgical staff, two ante-rooms for the administration of anæsthetics, and a students' room, all on the ground floor and within 30 feet of the casualty entrance to the institution and only about 10 feet from the lift. In the old theatre and in the students' room the floors have been reconstructed and covered with terrazzo, the walls have been painted, electric lights have been installed, and a sink has been fixed in the theatre provided with fittings similar to those in the new theatre described below. The full size of the new theatre is 18 feet by 25 feet, but this area is reduced to 18 feet square by the three-tier students' gallery, which is divided from the floor of the theatre by a single iron rail and is approached from the students' room by a separate passage. The height of the building from the floor to the inside of the roof ridge is 23 feet. The whole slope of the roof upon the north side is glazed along its entire length with fixed glass; the underside of the slates upon the other slope is finished with Keen's cement painted white. Three metal-framed casement windows are placed in the north wall of the theatre. Each of the ante-rooms is divided from the adjoining theatre by sliding doors running upon an iron carrier above and in a groove at the floor level. The floors are laid with terrazzo and in the theatres there is a slight fall towards a currented channel in the terrazzo which in turn discharges into the open air upon a channel leading to a trapped gully. The walls are lined to a height of seven feet from the floor with light green glazed bricks; above this dado in the new theatre there are white glazed bricks to the ceiling slope, and elsewhere the walls are covered with Keen's cement finished with hard white paint. All corners are rounded and ledges are generally avoided; there are no architraves to windows or doorways. In the gable wall of the new building is placed a Blackman's extraction fan about 12 inches in diameter operated by an electro-motor and capable of rapidly changing the whole of the air in the theatre. Inlet ventilators with hit-and-miss internal gratings and with an area of 18 inches by nine inches are fixed a few inches above the floor-level in all the rooms. In front of the principal of these openings there are hot-water radiators so constructed that they will swing at right angles to the wall, and as each radiator has a distinct connexion with the hot-water pipes the temperature of the building can be regulated at will. Artificial lighting is provided with incandescent electric lights, the central light over the operating table being a combination of 16 16-candle power lamps. In each theatre and in the staff room there is a white glazed sink; the water fittings of white metal enable hot, cold, or tepid water to be drawn off or sprayed from distinct taps. There are no pedal fittings, but over the handles of the taps, which are fixed at right angles to the water-pipes, there are placed loose white metal coverings which can be removed and sterilised each time they are used. In the dividing wall of the two theatres and opening into either is an autoclave made by Sulzer of Winterthur for the sterilisation of instruments or dressings. An instrument case with glass doors and glass shelves is to be placed in one of the ante-rooms.

A great deal of painstaking care appears to have been bestowed in matters of detail upon the construction of the building and the staff are to be congratulated upon having the coöperation of an architect who has realised the necessity for providing a building which shall be entirely hostile to the propagation of micro-organisms. The sterilised loose covering for the water taps is a novelty and will probably be found an improvement upon the pedal fittings. It will be a great comfort to the operating surgeon to know that his instruments and dressings have been subjected to the thoroughly effectual sterilisation of Sulzer's autoclave. There appears to be only one detail capable of improvement and that relates to the sliding doors between the ante-rooms and the theatres; the grooves in which these doors run will undoubtedly be the receptacle for dust and dirt and will be extremely difficult to keep clean.

DINNER TO SURGEON-GENERAL JAMESON, C.B.

AT a meeting recently held it was determined to invite Surgeon-General Jameson, C.B., to a complimentary dinner offered to him by his professional brethren. Surgeon-General Jameson has acted as Director-General of the Army Medical Department for the past five years and has had to discharge during that period duties involving the greatest responsibility, especially in connexion with the medical requirements of the war in South Africa.

Sir William Church has consented to take the chair and the dinner will probably take place in the latter part of July. An executive committee has been appointed to make the necessary arrangements, and communications will be received by the honorary secretary, Mr. Cuthbert Wallace, F.R.C.S. Eng., 75, Lambeth Palace-road, S.E.

The proposal has been cordially accepted by the President of the Royal College of Physicians of London (Sir William S. Church, Bart.), the President of the Royal College of Surgeons of England (Sir William Mac Cormac, Bart., K.C.B.), the President of the Royal College of Physicians of Edinburgh (Dr. Fraser), the President of the Royal College of Surgeons of Edinburgh (Dr. Dunsmure), the President of the Royal College of Physicians of Ireland (Sir Christopher Nixon), the President of the Royal College of Surgeons in Ireland (Mr. Thomas Myles), the President of the Faculty of Physicians and Surgeons in Glasgow (Dr. Finlayson), the President of the General Medical Council (Sir William Turner, K.C.B.), the Rt. Hon. Lord Lister, F.R.S., Sir Thomas Barlow, Bart., K.C.V.O., Sir Douglas Powell, Bart., K.C.V.O., Sir Thomas Smith, Bart., Sir Joseph Fayrer, Bart., K.C.S.I., Sir Frederick Treves, K.C.V.O., C.B., Sir John Batty Tuke, M.P., Sir Hector Cameron, Sir Dyce Duckworth, Sir William Thomson, C.B., Dr. F. W. Pavy, F.R.S., Dr. Patrick Heron Watson, Mr. Willett, Professor McCall Anderson, Mr. J. Langton, Mr. H. T. Butlin, Mr. Howard Marsh, Mr. A. A. Bowlby, C.M.G., Professor John Chiene, C.B., Mr. C. Stonham, Mr. W. Watson Cheyne, C.B., F.R.S., Mr. G. H. Makins, C.B., Mr. John Morgan, Dr. Allchin, Dr. Anderson, Dr. Bowles, Dr. Shore, Mr. Alfred Cooper, Dr. Farquharson, M.P., Dr. Philip Frank, Mr. Reginald Harrison, and Professor D. J. Cunningham, F.R.S.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6965 births and 3336 deaths were registered during the week ending June 8th The annual rate of mortality in these towns, which had been 16·8, 16·7, and 16·3 per 1000 in the three preceding weeks, further declined last week to 15·2. In London the death-rate was 14·2 per 1000, while it averaged 15·8 in the 32 large provincial towns. The lowest death-rates in these towns were 7·9 in Derby, 12·2 in Brighton and in Bristol, 12·6 in Cardiff, and 12·7 in Blackburn; the highest rates were 18·8 in Halifax, 19·1 in Norwich, 19·4 in Oldham, 19·7 in Nottingham, and 21·2 in Gateshead. The 3336 deaths in these towns included 320 which were referred to the principal zymotic diseases, against 386 and 360 in the two preceding weeks; of these 320 deaths, 91 resulted from measles, 75 from whooping-cough, 57 from diarrhœal diseases, 49 from diphtheria, 32 from scarlet fever, and 16 from "fever" (principally enteric). No death from any of these diseases was registered last week either in Leicester, Preston, or Huddersfield; in the other towns they caused the lowest death-rates in Croydon, Brighton, and Derby, and the highest rates in Swansea, Bolton, Blackburn, Sunderland, and Gateshead. The greatest mortality from measles occurred in Nottingham and Bolton; from whooping-cough in Swansea, Wolverhampton, and Sunderland; and from diarrhœal diseases in Plymouth and Burnley. The mortality from scarlet fever and that from "fever" showed no marked excess in any of the large towns. The 49 deaths from diphtheria included 15 in London, eight in Liverpool, five in Sheffield, three in Blackburn, and three in Leeds. No fatal case of small-pox was registered last week in any of the 33 large towns; and only one small-pox patient was admitted during the week into the Metropolitan Asylums Hospitals and remained under treatment on Saturday, June 8th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2462, against numbers increasing from 1522 to 2352 on the six preceding Saturdays; 314 new cases were admitted during the week, against 323, 341, and 318 in the three preceding weeks. The deaths in London referred to diseases of the respiratory organs, which had been 249, 191, and 240 in the three preceding weeks, declined again last week to 187, and were 61 below the corrected average. The causes of 27, or 0·8 per cent., of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Leicester, Salford, Hull, Newcastle, and 12 other smaller towns; the largest proportions of uncertified deaths were registered in Manchester, Bradford, Sunderland, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20·7 and 20·1 per 1000 in the two preceding weeks, further declined again to 19·6 during the week ending June 8th, but showed an excess of 4·4 per 1000 over the mean rate during the same period in the 33 large English towns. Among these Scotch towns the death-rates ranged from 13·7 in Paisley and 13·8 in Aberdeen to 20·1 in Leith and 20·4 in Glasgow. The 625 deaths in these towns included 48 which were referred to whooping-cough, 21 to measles, 18 to diarrhœa, seven to diphtheria, six to "fever," one to small-pox, and one to scarlet fever. In all, 102 deaths resulted from these principal zymotic diseases last week, against 89, 94, and 97 in the three preceding weeks. These 102 deaths were equal to an annual rate of 3·2 per 1000, being 1·7 per 1000 above the zymotic death-rate during the same period in the 33 large English towns. The fatal cases of whooping-cough, which had been 40 and 47 in the two preceding weeks, further increased last week to 48, of which 25 occurred in Glasgow, 11 in Edinburgh, six in Dundee, and four in Leith. The deaths from measles, which had been 19 and 17 in the two preceding weeks, rose again to 21 last week, and included 13 in Glasgow, three in Edinburgh, and two in Greenock. The fatal cases of measles, which had been 30 and 24 in the two preceding weeks, further declined last week to 18, of which 11 were registered in Glasgow, three in Dundee, and two in Edinburgh. The deaths from diphtheria, which had been two and four in the two preceding weeks, further rose last week to seven, and included four in Glasgow and two in Greenock. The six fatal cases of "fever" exceeded the number recorded in any recent week, and included four in Glasgow, where the death from small-pox was also registered. The deaths referred to diseases of the respiratory organs in these towns, which had been 101 and 107 in the two preceding weeks, declined again last week to 98, and were slightly below the number in the corresponding period of last year. The causes of 23, or nearly 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which, in the three preceding weeks, had been 25·4, 24·4, and 21·3 per 1000 of the population, as estimated from the results of the recent census, further declined to 20·1 during the week ending June 8th. During the past four weeks the death-rate in the city has averaged 22·8 per 1000, the rates during the same period being 15·3 in London and 20·9 in Edinburgh. The 144 deaths of persons belonging to Dublin were nine below the number in the preceding week, and included nine which were referred to the principal zymotic diseases, against 10, nine, and five in the three preceding weeks; of these five resulted from whooping-cough, two from diarrhœa, and one from scarlet fever. These nine deaths were equal to an annual rate of 1·3 per 1000, the zymotic death-rate during the same period being 1·5 in London and 2·8 in Edinburgh. The fatal cases of whooping-cough, which had been eight, five, and two in the three preceding weeks, rose again last week to five. The 144 deaths in Dublin last week included 21 of children under one year of age and 32 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons showed a decline from the numbers in the preceding week. Six inquest cases and two deaths from violence were registered, and 60, or nearly one-half, of the deaths occurred in public institutions. The causes of six, or more than 4 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

Army Medical Service.

SURGEON-GENERAL A. F. PRESTON, Principal Medical Officer in Ireland, has arrived in London, having as Senior Surgeon-General at home to take temporary charge until the appointment of a new Director-General.

Royal Army Medical Corps.

Captain C. Dalton takes over command of C Company at Aldershot. Surgeon-Captain R. S. Smith, A.M. Reserve, assumes medical charge of troops, field hospital, &c., at Barry Camp. Brigade-Surgeon-Lieutenant-Colonel Wilson, Vol. M S.C., assumes medical charge of the troops, &c., at Irvine Camp.

Volunteer Corps.

Artillery: 1st Shropshire and Staffordshire: Surgeon-Major E. Cureton to be Surgeon-Lieutenant-Colonel. *Rifle:* 1st (Exeter and South Devon) Volunteer Battalion the Devonshire Regiment Surgeon-Lieutenant R. Pickard to be Surgeon-Captain 2nd Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment). Surgeon-Major A. Chawner to be Surgeon-Lieutenant Colonel. 1st Sutherland (the Sutherland Highland): Surgeon-Lieutenant J. K. Tomory to be Surgeon-Captain and to remain Supernumerary. 2nd Volunteer Battalion the Gordon Highlanders: Hugh Gordon Cowie to be Surgeon-Lieutenant.

Volunteer Medical Staff Corps.

The Edinburgh Company: Surgeon-Captain D. Hepburn to be Surgeon-Major. The Glasgow Companies: George Henry Edington to be Surgeon-Lieutenant; Matthew Dunning to be Surgeon-Lieutenant.

South African War Notes.

The following have been discharged from hospital to duty —Major C. W. Allport, R A.M.C., and Civil Surgeons Charles Seymour Langley, Frederick Charles James, John Harry Saunders, Leonard Bostock, and Edward Albert Nathan.

No change is reported in Lieutenant Bean of the New South Wales Medical Staff

Civil Surgeon Wilbond is reported improving.

Civil Surgeon Donald Graham is reported dangerously ill with enteric fever (Rietfontein West, June 10th).

Colonel Baker, R A M C., and Civil Surgeons T. H. Gardner, E Archer Brown Cotterell, Robinson, Johnson, Bruce Hodge, and Hott are on passage home.

Major H. J. Wyatt, R.A M.C., and Major A. Wright, R A.M C., have arrived in England from South Africa.

The French Medical Service during the Recent Operations in China.

IN a supplementary report, which is published in the *Archives de Médecine Navale* for April, Dr. Mercié, principal medical officer in Chinese waters, gives an able and outspoken account, from a medical point of view, of the events which took place in the north-east of China during June, July, and August, 1900 Commencing with Admiral Seymour's relief expedition, which he characterises as "a brilliant feat of arms" and in which France was represented by 163 sailors under Captain de Marolles, with Dr. Autric in medical charge, Dr Mercié proceeds to give a graphic description of the state of unpreparedness in which his department found itself on the outbreak of hostilities. As late as May, and even up to the first days of June, no one believed that the Chinese would fight. The ease with which the Japanese had triumphed over them in 1895 completely masked the situation. The fact that since then the Chinese arsenals had been filled with modern arms was apparently ignored, and it was the universal opinion amongst all nationalities on the spot that nothing could induce Chinese soldiers to behave with courage and tenacity. But in spite of all this optimism it was not long before wounded and sick men began to arrive in comparatively overwhelming numbers. There were six French men-of-war on the spot, but Dr. Mercié was nevertheless put to his wits' end to find suitable accommodation for the patients. In eloquent terms he describes the shifts he was put to, thus completely bearing out the strictures of Dr. Léo to which we recently referred,[1] but although the executive officers gave him every assistance the utmost he could do was to provide beds for 60 of the worst cases. In addition to these there was also a sick list about 90 strong, and owing to the paucity of medical officers Dr. Mercié was compelled to attend to both categories single-handed. The way the patients had to be distributed in different parts of the *D'Entrecasteaux* made the task of looking after them trebly arduous, more especially as the insuffiency of trained medical attendants was equally lamentable. It is true that Captain Jan-Kerguistel, who was in command, was willing to detail orderlies from among the crew, but as Dr. Mercié remarks "it is not the first comer who can fill the rôle of an *infirmier*." Whenever, between dressings, Dr. Mercié wanted to wash his hands he had to walk and to climb at least 100 metres, in this way wasting several hours each day. Altogether the picture represented is that of a capable man struggling against well-nigh insuperable difficulties. But happily, when things were at their worst there was help forthcoming from an unexpected quarter. On July 7th the *Hakuai-Maru*, a Japanese Red Cross hospital ship arrived upon the scene and was placed at the disposal of the sick and wounded of all nationalities. The installation for 200 patients is described by Dr. Mercié as irreproachable in every respect. The staff comprised four medical officers, 33 male and 11 female attendants, all being specially trained and most efficient. "I may add, *en passant*," says Dr. Mercié, "that the hospital ships belonging to other powers, which reached Taku a long time afterwards, were reserved strictly for the sick of their own nationalities, and that the Japanese alone accepted patients without distinction." In conclusion Dr. Mercié draws a moral which might well be taken to heart by the controllers of other navies as well as his own. "It is of the utmost urgency," he says, "that hospital ships should form an inalienable portion of every sea-going squadron. In a naval engagement the improvised accommodation on board the *D'Entrecasteaux* would not have been available. A horrified world would have seen a return to the barbarous practice of a bygone age, when the unfortunate wounded men were heaped up *pêle mêle* in the dark unwholesome depths of the vessel until merciful death came to relieve them from their sufferings"

The Report on the War Office.

The report of Mr. Clinton Dawkins's Committee on War Office organisation is an important document and of a sufficiently drastic nature to be welcomed by that body of army reformers who have never seen anything good in our military administration. But how has the present state of things been brought about? Well, it is no doubt partly attributable to our party system of government. As one political party succeeds another changes are introduced, details get added or altered, new regulations are made and superimposed one upon the other until the machine gets more and more clogged, and almost ceases to act as a going business concern. While admitting all this and the shortcomings which the South African war have brought to light it cannot, we think, be denied that there is nevertheless no other nation which could have done what has been done in equipping, transporting, and landing such a force in that country. It says much for the personal capacity of the officials at Pall Mall that they have kept the machinery going so long and managed the affairs of the army as well as they have done. As the committee point out, the general structure of the organisation has been "built up piecemeal" and as the result of constant changes and compromises. The recommendations of the committee mainly deal with business principles and seem to be in the right direction, but we have yet to see how these are to be applied and how they will work out in the concrete and in practical business detail. There is nothing in the report of the committee so directly affecting the army medical service as to lend itself to comment, but we sincerely trust that a place will be found in any scheme for its being duly considered and properly represented.

The Parkes Memorial Prize.

Captain H. A. Howell, R.A.M.C., has, as we have already announced, been awarded the Parkes Memorial Prize for an essay on Venereal Diseases in British and Native Armies. This prize, which consists of 75 guineas and a bronze medal, is awarded every third year to the writer of the best essay on a subject connected with hygiene. The competition is open to the medical officers of the army, navy, and Indian services, of executive rank on full pay, with the exception of the assistant professors of the Army Medical School during their term of office. The subject for the next prize will be "On the Prevention of Disease amongst Armies engaged in Active Operations in the Field, with Special Reference to the Sanitary Organisation of a Field Force," to be illustrated as far as practicable from the personal experience of the writer. Essays must be sent in to the secretary of the Parkes Memorial Fund, Royal Victoria Hospital, Netley, on or before Dec. 31st, 1903. Each essay should have a motto and should be accompanied with a sealed envelope bearing the same motto and containing the name of the competitor.

The Royal Naval Hospital, Plymouth.

The First Lord of the Admiralty (the Earl of Selborne) and the other Admiralty Lords made an official inspection of the Royal Naval Hospital, Plymouth, on June 4th. Their lordships were received by Sir Henry Norbury, K.C.B., R.N. (Naval Medical Department), Inspector-General J. F. Fisher, Deputy Inspector-General C. C. Godding, and Deputy Inspector-General H. T. Cox. Many improvements are being made in the hospital. To each block of the building improved bath and lavatory accommodation is being added and the old wood floors are being removed and fire-proof concrete substituted. Since the previous official visit the new isolation buildings have been completed, the laundry extended, and new machinery added. A small building adjoining the hospital is to be enlarged and converted into a new block.

The Bestowal of the South African Medals.

The medical arrangements in connexion with the ceremony of bestowing the South African war medals upon the recipients on June 12th were under the supervision of Captain W. A. Ward, R.A.M.C. Twelve squads of regimental stretcher-bearers were distributed among the troops and two dressing stations were formed, one at the Tylt Guard-room, Horse Guards, to receive cases from the north and east of the ground, and the other at the south-west corner of the parade towards Storey's Gate, where there were ambulance-wagons to receive cases from the south and west of the ground. A station was also formed at the parkkeeper's shelter in St. James's park facing the Horse Guards. Among the recipients of the medals were members of the Royal Army Medical Corps and the consulting surgeons and civilian surgeons who have returned from the seat of war.

The Military Station Hospital, Portsmouth, and the New Naval Barracks.

On Monday, June 10th, the military hospital at this station was handed over to the contractors for the new naval barracks as the site of the officers' quarters. A site has been secured on Portsdown Hill for the military hospital. The new naval barracks will occupy an area of 62 acres and barrack-room accommodation will be provided for 4000 men.

Ambulance Challenge Shield Competition.

The Ambulance Challenge Shield of the Volunteer Medical Association has been won by the 2nd V.B. Royal Fusiliers (City of London Regiment). The following are the names of the individual winning competitors: Corporal S. Bethell, Corporal C. Burridge, Private W. G. Tringham, and Lance Corporal P. J. Watkins.

Captain T. H. M. Clarke, D.S.O., R.A.M.C., has taken up his duties as private medical adviser to H.R.H. Prince George of Greece. Captain Clarke came prominently under notice during the time that he served in Crete.

The King has made the following appointments:—To be an Ordinary Member of the Third Class or Companion of the Most Distinguished Order of St. Michael and St. George: John Binny Hay, M.B., C.M. Edin., of the Gold Coast Medical Service, in recognition of his services in the siege of Coomassie To be a Companion of the Distinguished Service Order in recognition of his services during the recent operations in Ashanti Surgeon Captain William Fletcher, Militia Medical Staff Corps

---

[1] THE LANCET, May 25th, 1901, p 1493.

Correspondence.

"Audi alteram partem."

HOSPITAL SUNDAY.

To the Editors of THE LANCET.

SIRS,—The approach of "Hospital Sunday" must be my plea for urging, as president and treasurer of the Fund, that the public should respond in a liberal spirit to the appeal which will be *made to them on* Sunday *next* in all the churches and chapels of the metropolis in behalf of the hospitals and dispensaries for the treatment of the sick poor This year the council have 201 institutions seeking to participate in the Fund The needs of all these charities, if *only to reimburse them for last year's outlay on the London* poor, would not be covered by £100,000

There is, happily, no necessity for me to enlarge upon the merits of these institutions their readiness in relieving those who are afflicted, the benefits they confer on the more fortunate by checking the *spread of disease*, and their success in mitigating the exceptionally sad consequences of illness when combined with poverty

But I desire to point out the unique character of this annual collection and the opportunity which it affords for unostentatious and practical *sympathy* with a cause which is Christian and self sacrificing beyond dispute Every inhabitant of the metropolis, irrespective of creed, is offered the privilege of easily gratifying his instinctive sympathy with the suffering poor , he is not subjected to pressure and of imposture there can be no fear

Should any of your readers be absent from public worship *or not in London next Sunday they may remit* their contributions to me at the Mansion House

I am, Sirs, yours faithfully,
FRANK GREEN, Lord Mayor.

The Mansion House, London, June 11th 1901

PS —I have just received a further generous donation of £10,000 from Mr George Herring who in his letter says "I hope your receipts this year will make a record one, as the hospitals and convalescent homes are greatly in need of funds, and it must be true charity to help our poor through *sickness to health* "

"DENTISTRY AND THE SERVICES"

To the Editors of THE LANCET

SIRS,—The very temperate and sensible annotation on the above subject in THE LANCET of June 8th has *tempted me to* point out what appears to be a possible method of dealing with the teeth of our soldiers The present war has conclusively demonstrated that legislation is necessary Sending four dentists to South Africa to relieve the sufferings of our soldiers shows that the Government realises its present responsibility, but such a course of action in no sense deals with the question upon a permanent footing Although it is surrounded with many difficulties it seems possible to avoid pitfalls *and to bring into force a system that shall* adequately deal with it which not being too expensive a luxury might be within the pale of practical politics The problem can be dealt with as follows 1 The appointment of dental surgeons at all the large military depôts who shall be at the service of the troops at home The question of payment is one that can be arranged 2 That all army medical men shall upon admittance *into the service be required to receive six* months' training in operative dentistry at a dental hospital and shall be required to produce evidence of attendence upon such a course 3 That each army surgeon shall be provided with the necessary equipment to enable him to *treat all ordinary dental troubles*

I have purposely avoided entering into minute details which could be carefully thought out and arranged, but it would seem desirable that a permanent Government official should be appointed to see that the scheme is efficiently carried out I believe the adoption of a course such as is here suggested would permanently deal with a difficult subject

I am, Sirs, yours faithfully,
MORTON SMALE
June 1901

ARMY MEDICAL REORGANISATION.

To the Editors of THE LANCET

SIRS,—Unless this *subject* be *tabooed I would* like *to call attention to the important* bearing of the last return from the War Office, giving the total losses in the field force in South Africa to the end of May, on the professional status of the *personnel* which the medical staff requires In this return the total death loss from war injuries is placed at 5592 and that from *disease* at 9667, while no less than 49 761 were *invalided, doubtless* mainly from disease and especially enteric fever—a preventable malady, and of these 342 had died and 2864 been discharged the service as unfit, the remainder having recovered and been returned to duty except 819 still in hospital This return is much on a par with the former ones, both in respect to this and former wars and to the experience of other nations, and illustrates the enormous ravages which disease makes, both as to temporary inefficiency of the field force and also as to permanent loss from deaths or discharges from the service from unfitness so brought about, and brings prominently to the front the nature of the duties which devolve on the medical staff (in peace as in war)—sanitary, medical, surgical, in relative importance as placed—and the necessary professional qualifications of the members composing it if these highly important duties bearing on army efficiency are to be effectively carried out And the pressing question in the near future is *the degree to which these essentials will find expression in the* conclusions of the committee to which the completion of the work of the South African Commission is to be entrusted No mere "readjustment of the apparatus' or organisation, however otherwise complete, "can compensate for defective *personnel*," and unless a thoroughly efficient body of professional men well qualified in these respects can be obtained for the Royal Army Medical Corps and more power be given to it to make its influence operative in the army sphere for good, it is not apparent how the future can be an advance over the past No doubt other qualifications of an administrative and military character are also necessary in this corps to which such multiple duties are entrusted, and should receive consideration , but the figures above mentioned indicate beyond all doubt that its true basis is *primarily and essentially professional*, a feature which does not seem to me to figure in its right proportion in the schemes advanced for the reorganisation of the corps other than in the original recommendations of the South African Commission To obtain *men* of a *good professional* status is a *sine qua non* if this corps is to be made fitted for its duties, and to retain each executive rank at a high standard is no less essential ; and no less essential are these professional qualifications for the administrative grades for it is apparent that no proper inspection and supervision of the work of juniors can be made nor proper confidential reports for the guidance *of those controlling selection can be* furnished unless the administrating seniors possess the necessary ability and knowledge on which to act

With a department organised on a military framework as the Royal Army Medical Corps now is the danger of not giving adequate expression to its right professional basis is apparent , in the past, except as a recommendation of the Crimean Commission it has received no consideration , and in the future, unless there be a strong professional element in the constructive committee that is to be, it is difficult to perceive how it is to obtain the recognition it requires—as of paramount importance, as illustrated in the *figures* of the War Office return referred to

I am, Sirs yours faithfully,
FRANCIS H WELCH, F R C S Eng ,
Surgeon Colonel A M S (retired)

Lee S E., June 10th 1901

SURGICAL OR MEDICAL TREATMENT IN GASTRIC ULCER?

To the Editors of THE LANCET

SIRS,—The very interesting article by Mr C B Keetley which appeared in THE LANCET of June 8th, p 1597, on a series of cases of gastric ulcer demonstrates in a very clear manner the value of operation in the greater number of those cases where hæmorrhage is persistent and profuse and where ulceration has existed for a prolonged period. But I am not quite at one with Mr. Keetley in the conclusion which is to be gathered from his summing up, that, broadly speaking, all cases of gastric ulcer should be operated on as soon as the diagnosis is assured, for it is by no means uncommon to have severe and frequently recurring hæmorrhage from the stomach of a patient, and yet when operation has been decided on and the stomach opened into the ulceration has proved so extensive (though superficial) that no radical treatment can be attempted, and, save for the benefit of washing out the viscus, the use of the knife is abortive. A case illustrative of this came under my care some little time back in Fremantle Hospital, Western Australia, a few notes of which I will quote. The patient was admitted to hospital on Feb. 4th, 1900, suffering from anæmia and hæmatemesis. Vomiting immediately after food was experienced and there was great pain in the epigastrium. The pulse was small and rapid and the temperature was 99°F. On the 5th the copious hæmorrhage from the stomach continued, the temperature was 101°, and the pulse was thready and very weak. A quarter of a grain of morphia was ordered to be administered every four hours, no food or liquids by the mouth being allowed. The bowels were opened by a soap and-water enema and towards evening a mixture of peptonised milk, virol, and brandy was injected into the bowel. On the 6th no great improvement was shown to have taken place so operation was decided upon. The patient took the chloroform well and the stomach was exposed and opened near the greater curvature, an incision of one and a half inches being made. The wall was natural in appearance from the outside though a good deal of venous bleeding occurred in making the incision. The interior was congested and in some places it was superficially ulcerated, but in no part had the ulcerative process extended beyond the mucous membrane. A stream of weak boric acid solution was used to wash out the detritus and pieces of blood coagulum, the wound in the stomach was closed with a close row of Lembert sutures, and the operation was completed in the usual way. Six hours after the operation a hypodermic injection of digitalin and morphine was given, and a couple of quarts of tepid water per rectum did much to relieve the intense sensation of thirst. The patient had a good night. On the 7th teaspoonful doses of tepid water every 20 minutes were ordered. Two rectal enemata of milk, brandy, and virol were administered at 2 P.M. and at 6 P.M. There was a good deal of retching which was relieved soon after the administration of the digitalin and morphine hypodermically. There was no hæmorrhage or actual vomiting. On the 18th there was much retching. Two hypodermic injections of morphia and digitalin were given at 8 A.M. and 4 P.M. The wound was examined and was found to be doing well. On the 10th the patient was quite free from pain and retching and was feeling hungry. Rectal enemata only with water by the mouth were employed. On the 12th a tablespoonful of chicken jelly was given twice during the day by the mouth, and two tablespoonfuls of peptonised milk were given every four hours. The rectal feeding was continued. On the 15th the stomach held liquid food readily, a pint of strained beef-tea and two pints of peptonised milk with two tablespoonfuls of virol being taken in the 24 hours. On the 20th beaten-up eggs, custard, boiled rice, semolina, &c., were added to the diet. On the 25th a little minced chicken was taken, the patient was gaining strength rapidly, but the recumbent position was still insisted upon. From this date the progress of the case was uneventful, but the patient was not dismissed from hospital until six weeks after the date of admission.

Another case, on all fours with this one so far as primary symptoms were concerned, came under my observation some months later and was treated from a medical standpoint only by prolonged rest in bed, absolute avoidance of food by the mouth for a fortnight, and a steady but watchful administration of digitalin and morphine hypodermically. The results were highly satisfactory, the patient being sent out of hospital in three weeks' time quite recovered.

Many lives are undoubtedly saved by timely operation in this grave pathological condition, but it must be admitted that at least as many more run unnecessary risk by too early an interference, when even the most appalling hæmorrhage can be satisfactorily controlled by keeping the organ at perfect rest and by the judicious use of morphine and digitalin till the blood-pressure falls.

I am, Sirs, yours faithfully,
L. WHEELER, M.B., B.Ch. R.U.I.,
Surgeon, Fremantle Hospital, Western Australia.
Junior Conservative Club, Albemarle street, W., June 10th, 1901

PRELIMINARY MEDICAL EDUCATION.

To the Editors of THE LANCET.

SIRS,—As it seems possible that the negative given to Dr. McVail's resolution yesterday may be construed to affirm that the Council was satisfied "that the courses of study in the subjects of the first professional examination are in all cases sufficient," I think it right to state that so far as my vote and that of most, if not all, of those who formed the majority went, it was not intended to convey any such interpretation. I felt bound to vote against the resolution, because it withdrew from the Council the main question involved by the recent action of the London Colleges—namely, their ignoring the resolution of the Council *requiring five years' study at a recognised medical school*, and their consequently ceasing to require a certificate of registration from candidates for their licence. These, and not the standard of education, were the fundamental questions before the Council, and had Dr. McVail's resolution been carried all reference to these important questions would have been shelved. Further, Dr. McVail announced that the vote on that resolution would be final, so that not alone was no expression of opinion possible on these points, but no alternative course other than complete submission by the Council to the decision of the Colleges was possible. I seconded Mr. Ball's amendment because I consider that some arrangement which would place all the licensing bodies on an equality is most advisable; and while not pledging myself to details I consider the principle underlying that and Mr. Bruce's motion the best, not alone for licensing bodies, but for the advancement of medical education; for I am of opinion that when possible it is desirable that both physics and chemistry should be taught as subjects of preliminary education. I am, Sirs, yours faithfully,

LOMBE ATTHILL, M.D Dub.
General Medical Council Office, Oxford-street, London, W.,
June 11th, 1901.

CÆSAREAN SECTION IN LONDON.

To the Editors of THE LANCET.

SIRS,—In your "Mirror of Hospital Practice" for June 8th, p. 1604, it is stated that "from 1886 to 1894 22 cases [of Cæsarean section] were recorded in the London Hospital." Will you permit us to say that this is erroneous, that no such number of Cæsarean sections have been either performed or recorded in the London Hospital during the period mentioned?

We are, Sirs, yours faithfully,
G. E. HERMAN, } Obstetric Physicians to
ARTHUR H. N. LEWERS, } the London Hospital.
June 8th, 1901.

⁎⁎⁎ We willingly publish this letter. It must have been obvious to every reader that the statement referred to was incorrect. The words "the" and "hospital" were interpolations owing to a printer's error. The reason of the error is clear; the case upon which we were commenting occurred in the London Hospital. The sentence should have read, "from 1886 to 1894 22 cases were recorded in London."—ED. L.

"LOCAL *v.* GENERAL ANÆSTHESIA IN CERTAIN CASES OF ABDOMINAL SURGERY."

To the Editors of THE LANCET.

SIRS,—Your correspondent, Dr. S. Johnson Taylor, finds fault with me for limiting my remarks on Mr. Morse's article to a particular question. My objection to Dr. Taylor's contribution is just the contrary, that he is leaving the point particularly raised by Mr. Morse and broaching the whole subject of what inconveniences and dangers attend general anæsthesia and whether a local anæsthetic can obviate these.

This is too large a question to discuss in your correspondence columns; my letter was to controvert a definite position of Mr. Morse's when he placed general anæsthetics in the first place as causes of shock in certain operation cases. I endeavoured to show that this is not justified by experience and that a properly selected and administered general anæsthetic is more likely to diminish than to increase the chances of shock. I am, Sirs, yours faithfully,

Sloane terrace Mansions, S.W. J. BLUMFELD.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Effect of Famines on the Population of India.—The Decline of the Plague Epidemic.—The Coming Monsoon.—Decrease of Typhoid Fever in Military Stations.—The Kasauli Institution.—The Success of the Victoria Memorials.—Flagellar Fever in Malignant Tertian Malaria.

DURING the past 10 years it is estimated that the population of the whole of India has only increased by 28,000,000—a rate considerably less than that of the previous decade. There are only two factors which can have an appreciable effect on the number of the people. A diminished birth-rate may have contributed to this lessened increase, but its influence cannot have been very great. At the outside 20 per cent. may be put down to this cause. An enhanced mortality must be the chief factor. It is estimated that there were 20,000,000 more deaths than under ordinary circumstances there should have been, and if we put 1,000,000 deaths down to plague there remain 19,000,000 which can be attributed with some reason either to actual starvation or to the diseases arising therefrom. It is impossible to know how many people have suffered from the famines of the past few years. A further increase in the numbers under famine relief has recently occurred and the total now requiring help is 312,169. These facts speak for themselves.

The plague epidemic shows a still further decline. The total number of deaths returned for last week is 2592, against 3298 in the previous seven days. The improvement is general. In Calcutta there were only 134 deaths and in Bombay city there is a decline also. By the recent census the rate of mortality for the past week in Calcutta is 34 5 per 1000, but if calculated on the previous census it would have been 42 per 1000. In Bombay city the death-rate is 89 11 per mille calculated on the old figures of population, so that as the inhabitants have decreased in number the actual rate should be even higher. Cholera and small-pox being less than normal this extraordinary mortality has to be accounted for. There were only 375 deaths attributed to plague (out of a general mortality of 1357), which would, if deducted, still leave the rate of general mortality about 60 per 1000.

It is anticipated that the monsoon will occur earlier than usual this year. The conditions in the Indian Ocean from the Seychelles and Zanzibar show more rain and wind and are distinctly favourable. For some months past the rainfall in East Africa and Upper Egypt and the Soudan has been above normal and several storms have occurred in the Arabian sea. All these occurrences are said to be indications of an early and favourable monsoon for India. The rain-bearing current on the Bombay side and into Upper India may be adversely affected if snow-giving depressions come from the direction of Persia. The recent heavy snowfall in Chitral and the consequent high barometric pressure in Upper India caused some anxiety. It is the west of India where the famines have already occurred to which the uncertainty of the monsoon chiefly applies.

The reports from the various military stations in India continue to show a much smaller percentage than usual of typhoid fever cases. This is in all probability explained by the absence of drafts from home and by the retention of more or less seasoned soldiers. It must not be hastily assumed that the dangers of typhoid fever have been to any great degree lessened.

The Kasauli Institution continues to receive more and more recognition and support. A native gentleman has now come forward and presented a 16-roomed house in the bazaar for the accommodation of pauper native patients. There have now been 230 patients treated by Pasteur's antirabic method since August last and interest in the institute is evidently spreading in native society.

The All India Memorial to the late Queen Empress continues to receive widespread support. The total amount of subscriptions is now close on 34 lakhs of rupees—equal to over £220,000. The Victoria Scholarship Fund for training native midwives is also flourishing and the total sum received to date is 3½ lakhs of rupees.

Major Buchanan of Nagpur has recently published in the *Indian Medical Gazette* some important observations on exflagellation of the malarial parasite. He says that exflagellation does take place before the blood is drawn and he is thus opposed to the views of Manson and Celli. He describes three stages. The first or primary fever in which rings are found. The second period (after the primary fever) during which there is little or no fever, but in which there is a marked diminution of ring forms with an increase of crescents and at the end a few flagella bodies. The third period or flagella fever having a tertian appearance characterised by the rare presence of ring forms but by first increasing and then decreasing crescents and the presence of increasing and decreasing flagella bodies. The primary fever, he says, "is caused by the sexual sporulation of the rosette forms; the interval occurs at the time when the crescents are maturing. The secondary fever then comes on, and although it is contrary to the view held by Manson, Celli, Ross, Christy, and others, still we believe that this part of the fever is caused by the breaking-up of the crescents, or, in other words, that exflagellation does occur inside the body."

May 16th.

Rapid Decline of the Plague Epidemic.—The Continued Famine.—The Re-organisation of Municipal Health Departments.—The Education of Sanitary Inspectors.—The Health of Calcutta in 1900

THE plague mortality throughout India continues to decrease rapidly. The returns for last week show a total of only 1918 deaths against 2592 in the preceding seven days. The improvement is general. Bengal returns 464 deaths against 758 the previous week; Calcutta 79, against 134; Bombay Presidency, 547; Bombay city 295, against 310; Madras Presidency, 9; Punjab 247, against 341; North-West Provinces 164, against 306; Karachi 154, against 289; Mysore, 21; and Kashmir, 28. On the basis that 100 deaths a week constitute an epidemic, as against the occurrence of so-called sporadic cases—a standard which has come somehow or other generally to be adopted—the epidemic in Calcutta is reported as having ended. The outbreak is thus calculated to have lasted for 16 weeks this year, as compared with 23 weeks last year.

Since my report last week on the increase of the numbers under famine relief I hear that the labourers thrown out of employment by the completion of the harvest operations are beginning to crowd to Government relief works in the famine area of the Bombay Presidency. There has been this week an increase of 30,000. In the native States increases are also reported and the total number under relief throughout India is now 418,046.

The municipality of Calcutta is waking up to its duties with regard to sanitary matters. A re-organisation of the engineering and health departments is in contemplation. It has been recommended by a sub-committee (1) that the conservancy department should be amalgamated with the engineer's department; (2) that the building department should be a separate department with a responsible officer in charge; (3) that the city should be divided into districts, each district being self-contained in the health, building, and engineering items; and (4) that a local municipal office should be established in each district which should be the centre of the municipal business for the district. This scheme is something like that adopted in Bombay, but it contemplates a much greater decentralisation of work and of powers. I have already reported upon the proposed sanitary improvements for every ward of the city.

The great want of Indian cities seems to be in properly educated sanitary inspectors Something has been done to endeavour to supply this want by the Sanitary Commissioner of Madras and recently by the Bengal Government in offering scholarships to certain engineering students. I am glad to see that this matter is also being taken up by the new health officer of Bombay who has recently drawn up regulations for the examination and instruction of candidates for these posts. He includes in his subjects elementary physics and chemistry in relation to water, soil, air, and ventilation; elementary statistical methods; municipal hygiene, including sanitary defects in and about buildings, water-supplies, sanitary appliances, drainage refuse removal and disposal, offensive trades, disinfection, and food inspection; and in addition the Bombay Municipal Act Statutes and the orders, memoranda, and model by-laws in force. This is a matter which might well be taken up also by the University of Calcutta. A movement has been recently on foot to establish a department of hygiene. In addition to granting certificates and degrees to medical men it might well institute a course of study and an examination for sanitary inspectors.

The health of Calcutta in 1900 has been recently commented upon by the Inspector-General of Civil Hospitals for Bengal. The past year has been an exceptionally unhealthy one. The death-rate of Calcutta rose to 53 88, and that of Howrat to 60 50, per 1000 There was an increased mortality from all the principal diseases. Plague undoubtedly was the chief factor in the increase, but the extraordinary rainfall in September caused a great mortality from cholera and diarrhœal complaints. The plague inspections at the port of Calcutta involved the examination of over 250,000 persons and the disinfection of the clothing and bedding of 79,255 persons. Small-pox was more prevalent than usual and 74 per cent. of the patients admitted to hospital were unprotected by previous vaccination. These figures show the inefficient state of vaccination in the city and the Lieutenant-Governor has animadverted strongly on the imperfect enforcement of the vaccination laws. Cholera also was more prevalent and the death-rate in the hospitals rose to 63 94 per 1000. There were 8354 deaths from plague, and of the 449 patients admitted to hospital 357 died, giving a death rate of 79 51 per cent. This is about the same rate as occurs in the hospitals in Bombay. The various medical institutions of the city seem to be carrying on their work satisfactorily, but in one hospital there appears to be some evidence of overcrowding and the Campbell Hospital is said to suffer from the municipal refuse depôt and loading platforms being too adjacent.

May 25th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Banquet to Major Ronald Ross, F.R.S., late I.M.S.: The Fifth Expedition to West Africa Organised by the Liverpool School of Tropical Medicine.

MAJOR RONALD ROSS and the members of the expedition sailing on Saturday, June 15th, under the auspices of the Liverpool School of Tropical Medicine, were recently entertained at a banquet given by Mr. Alfred L. Jones, the chairman of the school. The guests included the Lord Bishop of the diocese, the Lord Mayor, Surgeon-General R. Harvey, C.B., D S.O., Director-General I.M S., Sir Edward Russell, and Principal Dale of University College. The chairman, on proposing "Success to the Expedition," said that the school was engaged in one of the greatest works ever attempted—viz., the endeavour to establish in the tropics the possibilities of healthy life as existing in temperate climates. They had accomplished much, and he gratefully acknowledged the sympathy which they had met with, both from the public and the press. These expeditions to West Africa had awakened public interest in a great question. They had also taught people in the tropics the possibility of combating malaria. He eulogised the work done by Major Ross in this direction and warmly congratulated him on his election to the Royal Society. He also had to announce that the Colonial Office had given instructions that the expedition was to have every facility for carrying out its work. Major Ross, in reply to the toast, said that he felt that night to be one of the proudest in his life. He had the honour to respond to the toast; he had received the honour of election to the Royal Society; and he sat between his present chief, Mr. Alfred Jones, and his former chief, Surgeon-General Harvey, and in company with his old tutor, Professor E. Smith. The expedition did not—he was glad to say it—consist solely of himself. It would include others who had helped this work on. In that respect he acknowledged his indebtedness to Mr. Alfred Jones, who had said that he would give the expedition enough plaster to cover Africa; to Mr. John Holt for his liberal gifts of oil; and to many others, including the manufacturers of various patent materials for killing insects. The expedition was not going out to prove the mosquito theory. That had been conclusively proved three years ago. It was a matter of absolute certainty, which was only doubted by amateur pathologists who were prepared with confidence to deny what was now accepted by every scientific man in Europe. They were going not to prove the theory but its applicability. They might not be able wholly to exterminate the mosquito, but he was satisfied from six years' study of the subject that they could reduce its numbers to one-tenth or even one-twentieth. He had, he was glad to say, funds sufficient to employ from 30 to 40 native assistants for one year and it would be their duty to clear Freetown (to begin with) of mosquitoes by filling up puddles, emptying tanks of water, and fumigating houses. Once that work had been carried out the municipal authorities would only need to keep it up. The experiment would go on for 10 years. In that time they hoped to work down to Accra and Cape Coast. The Bishop of Liverpool, in an interesting speech, said that commerce and science would go hand in hand. The time had passed when science could despise commerce as mercenary and material while commerce looked down on science as visionary. This School of Tropical Medicine was an instance of the results that might be expected from an alliance of the two. The school was in its infancy, but it had already moulded heroes prepared to carry the blessings of science to the ends of the earth.

Death of Mr. Thomas Cayzer, M.R.C.S. Eng., L.S A.

Mr. Thomas Cayzer died at his residence at Grassendale on May 29th, after a short illness, in his sixty-seventh year. Mr. Cayzer enjoyed an extensive practice in the outskirts of Liverpool, and was widely respected by a large circle. He took a great interest in the Volunteer movement, and at the time of his decease was Surgeon-Lieutenant-Colonel in the 6th Lancashire Volunteer Artillery. He had also obtained the Volunteer decoration. To quote the words of a lay contemporary, "The corps has lost a worthy and most respected officer, whose sole idea was to do his duty to his country, to his corps, and to his fellowmen."

Hospital Extension at Wallasey: Local Government Board Inquiry.

Dr. E. P. Manby, Local Government Board inspector, held an inquiry at the public offices, Egremont, on June 3rd, respecting an application by the Wallasey Urban District Council to borrow £15,500 for the purpose of hospital extension for infectious diseases. The existing hospital was built 20 years ago, and then consisted of one pavilion containing eight beds, an administrative block, and a laundry. In 1894 an additional pavilion was erected to accommodate 12 beds and a small addition was subsequently made to the administrative block. The population of the district was now 53,000, an increase of 20,000 in the last decade. The proposed scheme included the erection of an additional 24-bed pavilion and a reconstruction and enlargement of the administrative block. With the addition of the 24-bed pavilion, the accommodation would provide 44 beds, and the site would ultimately accommodate two 24-bed pavilions and one eight-bed pavilion. The building would consist of a centre three-storey block, with the greater portion of the present administrative block as a wing to the east. A similar wing, providing additional bedrooms on the first floor and other accommodation on the ground floor, would extend to the west, but it would not be necessary to build this wing for several years. An engine-house, a new disinfector, as well as certain sanitary accommodation, were also included in the scheme, and the whole of the building would be fitted up with the necessary electric bells and telephones, as well as with the electric light. The extension, there can be no doubt, is urgently required, as during the late epidemic of scarlet fever it was no uncommon thing to find three or four people occupying a ward which was only intended to accommodate one person.

Hospital Saturday Ladies' Street Collection.

On June 8th the ladies made their annual street collection on behalf of the Hospital Saturday Fund. The city was divided in 85 sections, controlled by 47 heads of districts, each having a staff of workers, in all numbering close upon 1000. The day was summerlike, in fact all that was desirable for a favourable collection. Last year £837 12*s.* 4*d.* were contributed in the same manner, and it is confidently expected that a substantial increase will result from the effort of last Saturday.

The Bootle Town Council and their New Medical Officer.

In consequence of the death of Mr. R. J. Sprakeling the post of medical officer of health of the borough of Bootle has become vacant. At the recent meeting of the Bootle Town Council the chairman of the Health Committee moved the adoption of a motion altering the conditions of service in the appointment of medical officer of health. The late medical officer was not debarred from private practice, but now, owing to the increase in the number of inhabitants in the borough, the Health Committee were of opinion that the time had come when the medical officer should devote his whole time to his corporate duties. The recommendation included a proposition that the medical officer of health should also perform the duties of visiting medical officer of the Linacre infectious hospital as well as those of surgeon to the police force and the fire brigade, at a salary of £350 inclusive. Exception was taken by several members of the council to the grouping of the offices which is certainly contrary to the general usages of other corporations. Moreover, it was pointed out that the council could not possibly expect a medical man who had spent the best part of his life in acquiring a special knowledge of public medicine to take up the three positions for such a small remuneration. After further discussion it was resolved to raise the salary from £350 to £400, and with this alteration the orginal recommendation was carried. The Mayor made a sympathetic allusion to the late Mr. R. J. Sprakeling who had occupied the position of medical officer since the incorporation of the borough.

Complimentary Dinner to Civil Surgeons who have served in South Africa.

It is intended to recognise the services of the local medical men who have served as civil surgeons in South Africa by a complimentary dinner to be held at the Exchange Station Hotel on June 20th. Mr. Edgar Browne, the President of the Medical Institution, will preside on the occasion. The movement is warmly supported by Sir William M. Banks and other prominent local practitioners.

June 11th.

WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

Cardiff Infirmary.

THE mayor and corporation, the members of the Cardiff Medical Society, and the members of the board of management of the infirmary, with their friends, were invited to the opening of the new operating theatre by Mr. Edmund Owen on June 6th, and nearly 300 ladies and gentlemen responded to the invitation. The proceedings were of a very enthusiastic character and Mr. Owen delivered an ideal address for such an occasion, the picturesqueness of his description of the Good Samaritan being appreciated to the full by his audience.

Superannuation of a Poor-law Medical Officer.

At the end of last year the board of guardians of the Swansea Union decided to re-arrange the district for which Mr. D. Howell Thomas had been for many years medical officer and to appoint in his stead a medical officer to the workhouse who should give his whole time to his duties. Mr. Thomas resigned his appointments upon the understanding that he should have five years added to his term of service. At the last meeting of the board this addition was made so that Mr. Thomas is now entitled to full superannuation allowance.

Refusal to fill up the Census Schedule.

The enumerators employed in taking the recent census do not appear to have met with many downright refusals to give the necessary information to the officials. One such instance occurred at Pilney, in Gloucestershire, where a man of somewhat pronounced views flatly refused to give to the enumerator, the district registrar, or the superintendent registrar the particulars that the law required of him, stating that he considered it unnecessary and quite a mistake upon the part of any Government to take a census. The Registrar-General very properly gave instructions for this pronounced individualist to be prosecuted and he was fined £2 15*s.* 6*d.* It was stated during the course of the magisterial proceedings that the defendant was himself an enumerator at a previous census.

Taunton and Somerset Hospital.

The Taunton and Somerset Hospital was established early in the last century and the present building, in which there is accommodation for 100 patients, is quite out of harmony with the requirements of the present day. The governors have decided therefore to make very extensive alterations at a cost of £6500, towards which sum £3500 have already been promised. The principal alterations involve the enlargement of some of the wards with the re-arrangement of the sanitary offices, the removal of the kitchen to an upper floor, the provision of a hand lift and a lift for patients, the erection of a new block of 12 bedrooms for nurses, and the provision of external iron fire-escape staircases, together with a general renovation of the whole building.

The late Mr. Thomas Bond.

Much regret is felt in the west of England at the sad death of Mr. Thomas Bond in London. The deceased was a member of an old Somerset family and was accustomed to visit his native county during his holidays. He was well known as a follower of the Devon and Somerset staghounds, with which pack of hounds he hunted regularly every season.

Sanitary Matters in Glamorganshire.

At the meeting of the Sanitary Committee of the Glamorgan County Council held on June 7th the medical officer of health drew attention to the sanitary condition of Gilfach where, he stated, the sewage was discharged into ditches, then into the river. An epidemic of diphtheria with 20 deaths out of 118 cases had recently occurred there. The local district council had shelved the whole question of drainage and the provision of an isolation hospital. The committee decided to inform the local authority that unless they remedied the present state of affairs the county council would interfere.

June 10th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Glasgow University.

THE preparations for the ceremonies which are to mark the occasion of the ninth jubilee are now fully completed. Numerous distinguished guests and delegates have arrived in the city and everything promises that the arrangements will prove worthy of so distinguished and interesting an occasion. From to-morrow until the end of the week there will be an academic holiday and the students will be free to entertain their *confrères* from other universities and to take their part in several of the larger ceremonies. To-night they conduct a torchlight procession as a welcome to the foreign delegates. At the graduation ceremony which is to be held on June 14th numerous honorary degrees are to be conferred. The recipients for the most part will be distinguished delegates representing foreign and other universities and various learned societies and corporations. There are, however, to be some honorary graduates whose claim to recognition stands on a different basis. Prominent among these will be Mr. Andrew Carnegie who is to receive the degree of LL.D. The senate have also resolved to confer the same degree on Mrs. John Elder of Govan and on Mrs. James Campbell of Tullichewan. It is to these ladies that the University mainly owes the establishment and equipment of the Queen Margaret College for Women Students. The College buildings and grounds were presented by Mrs. Elder who also, at a cost of £12,500, founded in the University the chair of Naval Architecture, and gave a donation of £5000 as an additional endowment to the chair of Civil Engineering. A third lady, Miss Agnes Weston, who has so long and successfully devoted herself to the amelioration of the condition of the British sailor, is also to receive the honorary LL.D. degree. The fund for the extension and better equipment of the University continues to make progress. The total amount now reaches nearly £44,000. Amongst recent donations is one of £5000 from Mrs. Nathaniel Dunlop, one of £250 from Mrs. Paul Rottenburgh, and a similar sum from Mr. D. M. Stevenson.

Glasgow Royal Infirmary.

The proceedings in connexion with the reconstruction scheme have unfortunately not yet ceased to excite controversy. The action of the committee in setting aside the decision of the architectural expert (Dr. Rowand Anderson) whom they had summoned to their aid was much criticised at the time, but as in their recent statement the committee explained that the assessor's opinion in opposition to the selected scheme was not based on any failure in regard to vital or essential particulars, but mainly on a difference of opinion in respect of style of architecture and elevation, it was hoped that public confidence would be content with their judgment. Dr. Anderson has, however, written to the press strongly controverting the committee's statement. He asserts it to be entirely wrong to lead the public to believe that his rejection of the design in question rested solely on a question of architectural treatment. On the contrary, he affirms that he attached supreme importance to the qualities demanded in a building to be utilised for the scientific treatment of the sick and injured. The compliments bestowed by the committee upon the architectural and æsthetic virtues of the scheme they have adopted Dr. Anderson describes as rank nonsense, and with some vigour protests against "the ghastly absurdity of a baronial infirmary."—Dr. James Allan has been appointed physician to the infirmary in succession to Dr. John Dougall whose term of office has expired.

Proposed New Hospital for Consumptives near Aberdeen.

Designs have been prepared by Mr. George Coutts, architect, Aberdeen, for a proposed new wing for 16 phthisical patients at the Convalescent Cottage Home, Newhills, near Aberdeen, which is supported by voluntary contributions. There will be separate kitchen, dining-room, and sleeping accommodation, and every facility according to the best continental models will be afforded for open-air treatment. As soon as the funds permit a water-supply by gravitation will be introduced.

June 12th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Ulster Medical Society.

THE annual meeting of the Ulster Medical Society was held on June 6th in the Belfast Museum, the President, Professor W. H. Thompson, M.D., R.U.I., being in the chair. The reports presented showed that there are now 152 members of the society and that there is a balance in hand of £69 1*s.* 6*d.* The following office-bearers were elected for session 1901–1902 :—President: Professor Whitla, M.D., R.U.I. Vice-Presidents: Dr. C. Shaw and Dr. James Colville. Treasurer: Dr. John McCaw. Secretary: Dr. Robert Campbell. Pathological secretaries: Dr. J. Lorrain Smith and Dr. T. Houston Librarian: Dr. R. R. L. Leathem. Council: Dr. H. L. McKisack, Dr. W. Calwell, Professor Byers, Dr. W. B. M'Quitty, Professor Lindsay, and Dr. A. Dempsey.

Holywood Dispensary.

Dr. W. Donnan has been appointed medical officer of Belfast Urban No. 14 and Castlereagh No. 2 dispensary district in place of Dr. S. H. Dunlop (Holywood) resigned.

Irish University Education.

The latest pronouncement on this question is that of the Presbyterian Church in Ireland, which at the meeting of their assembly in Belfast on June 7th passed resolutions in favour of non-sectarian public education, as best adapted to the circumstances of Ireland, and against the establishment and endowment out of the public funds of a Roman Catholic university. A very strong resolution was also passed protesting against the appointment of a Royal Commission on university education in Ireland from whose inquiry Trinity College and Dublin University are to be excluded, and calling upon all the Unionist Members of Parliament in Ireland to resist any such appointment. Some of the speakers went the length of suggesting that the assembly should not appear before the Commission if Trinity College was excluded. There is still no announcement of the persons who are to act on this Commission; indeed, on June 7th Mr. Balfour said in the House of Commons, in reply to an inquiry, that he was sorry he could not give the names.

County Armagh Asylum Board.

At a meeting of the Committee of Management of this asylum on June 10th the report of the inspectors was submitted. It stated, *inter alia*, that owing to the lack of records it seemed quite impossible to fix the amount of the deficiency or the extent of the misappropriation of asylum stores which it was feared had taken place. The new system of keeping accounts only came into operation on April 1st, 1900, but it appeared that the keeping of the former records had been grossly neglected, a fact which even the most casual examination would have disclosed. Regarding the functions of the committee it was their duty to see that the institution was properly managed and to see that the resident medical superintendent acquitted himself of his duties; and although they could not be expected to supervise the daily working the inspectors felt assured that to appoint a sub-committee to visit the asylum and to associate themselves with the management would be of the greatest benefit. They trusted that as new and satisfactory appointments had been made to the posts of clerk and storekeeper, and as the resident medical superintendent fully realised his responsibility such a state of affairs would not again be possible.

Chronic Lunatics in Workhouses.

The question—a confessedly difficult one—of how to deal with chronic lunatics, of whom there are now 4000 scattered about in the various union workhouses in Ireland, is being a good deal discussed at present. How to maintain and treat these poor creatures, who are not dangerous to themselves or others, is being debated by county councils (who really are the rating authorities), by boards of guardians (in whose workhouses there are a large number of these chronic cases), and by the asylum boards who find their institutions over-crammed with patients. There are several courses open to a county council in dealing with this problem which affects both workhouses and asylums: (1) they may build a separate auxiliary asylum for chronic harmless lunatics, with a resident medical superintendent and at least one assistant medical officer; (2) they may add to an existing asylum buildings less elaborate than the original ones in the form of a new department to be placed under the care of the resident medical superintendent of that asylum; and (3) they may acquire and adopt some workhouse or other building either as a separate auxiliary asylum or as a department of some existing asylum. By an amalgamation of unions they might free some existing workhouse for the purpose of an auxiliary asylum. The Local Government Board have put these various courses before the county councils and they are now making inquiries as to what may appear possible in the way of amalgamating unions. The initiative rests with the county councils and of course it depends largely on local considerations which of the courses indicated is taken, having regard both to the welfare of the unfortunate people concerned and to the interest of the ratepayers. It is doubtful, at least in some cases, whether the erection of buildings specially fitted for the reception of chronic lunatics might not be cheaper in the end than the adaptation of the old ones originally built for a different purpose.

The late Physician to the Queen in Ireland.

Probate has been sealed in London of the will of Dr. William Moore, late physician to the Queen in Ireland. The personalty was sworn at £38,500, and the sole executor is his eldest son, Mr. William Moore, M.P.

June 11th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

An Institute of Colonial Medicine.

AN active campaign is being waged at present with a view to the creation in Paris of a school of colonial medicine. Professor Raphael Blanchard is at the head of the movement, and a public subscription has been started for the inauguration and endowment of the new institute. Already nearly 250,000 francs have been subscribed. Only recently M. Brouardel and a delegate of the French Colonial Union had an official interview with the President of the Paris Press Syndicate so as to obtain the aid of the press. A manifesto has been issued to the public, signed by M.

Berthelot, M. Brouardel, M. Gréard, M. Perrier, and M. Roux, in order to help the subscription lists. The manifesto points out that the recent extensions of the French colonial possessions have imposed upon France a new moral responsibility, both as regards the peoples who have recently come under her rule and also as regards Frenchmen who exile themselves in those far-off regions. Finally, it must *not be forgotten that returned colonists may import new* diseases into France. As a matter of fact, the special education given to medical men who may find themselves brought into contact with tropical disease is insufficient. The medical men employed in the colonial service are drawn from the following sources: (1) ordinary civilian medical men who learn nothing during their course of study about tropical medicine; (2) naval sanitary medical officers, a class dating from 1896, who are appointed after a very elementary examination and who in the great majority of cases do not possess that knowledge of tropical pathology which is necessary for the right understanding of disease; (3) military medical officers who neither at the Lyons schools nor at that of Val de Grace have ever studied tropical pathology; (4) naval medical officers from the Bordeaux school who during their six months practical course at Toulon attend twice a week a course of bacteriology and a theoretical course of tropical pathology; and (5) colonial medical officers, also from the Bordeaux school, who after they have received their doctorate are passed by a practical school (*école d'application*) without any preparation and can be sent out to serve in the colonies with only a very slight knowledge of tropical hygiene and pathology. All the same the promotors of the new enterprise are rather too much disposed to argue that there does not exist even the embryo of colonial medical teaching. At the Faculty of Bordeaux M. le Dantec, a professor *agrégé*, holds extra classes in tropical pathology. At the school of Algiers M. Brault holds the chair of tropical diseases to which are attached a certain number of beds at the Mustapha Hospital for the purpose of clinical teaching. At Marseilles the Municipal Council supports five chairs for special teaching. Both at Bordeaux and at Marseilles the wish is expressed that the new institute should be started in one or other of these two towns, and it would seem only reasonable that one of the large French ports should be selected for the purpose. They have hospitals in which are met cases of tropical diseases, so that they can be studied with their results under the eye of the student and it is difficult to understand why a desire should exist for the institute to be in Paris, where cases of tropical diseases are hardly ever seen and where colonial medical officers have no reason to live. Nevertheless, the committee of the Faculty of Medicine has passed a resolution to the effect that a course of instruction in tropical medicine and hygiene should be begun by the Faculty and attached to the already existing chairs of hygiene and medical natural history. The latter chair at present deals with nothing but parasitology. The committee of the Faculty of Bordeaux has passed an almost identical resolution with the addition of creating a new diploma—namely, one in colonial medicine. The course for this diploma will last three months and will include practical and clinical work as well as theoretical studies. The work will be supervised by the staff of the faculty and the total expenses will not exceed 200 francs. At present, then, Paris, Bordeaux, and Marseilles are at daggers drawn, but it is obvious that either in Bordeaux or Marseilles there are much greater facilities for teaching and organisation than there are in Paris. In Paris the whole system would have to be started as something new; the expenses would be heavy and in addition expenses would be imposed upon naval or colonial medical officers for residence, for as a class they do not live in Paris. The Paris Faculty of Medicine, however, has made the question one of personal *amour-propre* on account of being at the head of French medical schools and also perhaps because it wishes to use the occasion as a means of rebutting the accusation so often made that it is a reactionary body and opposed to all progress.

The New Director of the Assistance Publique.

The successor to the late lamented M. Napias has been appointed. He is M. Mourier who has hitherto been employed on the administration of the Conseil d'État and who, *ex-officio*, was member of the Conseil de Surveillance of the Assistance Publique. Political considerations have, as is always the case in France, determined this appointment. The new director is not a medical man, and report says that he holds very decided views in opposition to the medical staff of the Assistance, the encroachment of whom he deplores and the members of which he holds responsible for the unfortunate financial condition of the Assistance. He has already announced his intention of inaugurating great reforms, but all his predecessors have started with this programme. Political exigencies have, however, always stood in the way of the realisation of these schemes and time only can show whether the new director will fare any better.

The Responsibility of Asylum Proprietors.

The First Chamber of the Civil Tribunal of the Seine has just given judgment in the case of the proprietor of an asylum at Fontenay sous Bois, named Duchamel. He was condemned to pay 10,000 francs damages to the parents of a neurasthenic young lady who hanged herself in the closet. The Tribunal based its judgment on the grounds that there must have been gross negligence on the part of those whose duty it was to look after the patient. She, as everyone responsible in the asylum knew, had already made two attempts at suicide and finally succeeded in hanging herself with the aid of a strip of stuff which she had in all probability cut off from her sheets.

June 10th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Inhalations of Oxygen.

A PAPER on Inhalations of Oxygen has been read before the Berlin Medical Society by Dr. Aron, who said that the atmosphere contained a sufficient proportion of oxygen to saturate the hæmoglobin of the blood, and as the hæmoglobin when saturated was, of course, unable to absorb more oxygen inhalations of oxygen were evidently useless. To obtain a more abundant absorption of oxygen it would be necessary to bring a greater quantity of hæmoglobin into contact with the air either by stimulating the circulation or, in cases of anæmia, by increasing the quantity of hæmoglobin in the blood, or by deeper respiration. Dr. Aron then explained that the statement of Professor Pflüger that in ordinary respiration one-fifteenth of the hæmoglobin remained unsaturated had no practical significance. Dr. Aron had found that the results of experience were in accordance with his theoretical views. The few instances in which the patients felt relieved by inhalations of oxygen were cases of dyspnœa in cardiac or pulmonary diseases but the improvement was maintained only while the inhalations were actually in progress. In bronchiectasis and in growths of the mediastinum there was no effect at all and the same was the case in chlorosis and anæmia In one case of cardiac disease an embolism of the pulmonary artery followed the inhalations. In no instance was there a marked decrease of cyanosis. Inhalations of oxygen had also been recommended as a treatment for apparent death from drowning and for poisoning by morphia, but artificial respiration was just as efficacious. In poisoning by carbonic oxide and in rarefied air where the amount of available oxygen was less than in the normal atmosphere the administration of oxygen was advisable. Dr. Aron had found that in animals in which he had produced artificial dyspnœa the administration of oxygen was not followed by any perceptible influence on the circulation.

Specialists in Germany.

The *Deutsche Medicinische Wochenschrift* of June 6th contains an interesting article by Dr. Heimann on the specialists of Germany. As far as I know, this is the first time that statistics of the number of specialists and the proportion of them relatively to the general practitioners have been collected. The title of specialist not being an official one may be assumed by any medical man and it is matter of common knowledge that there are specialists practising for the most part in large towns whose special training consisted in a course of six weeks' duration at Vienna or even only at some polyclinic at home A good many of these so called specialists combine general practice with their specialty. Dr. Heimann's article is not based on official records which, of course, do not exist, but on the information supplied by the respective medical men and published in Dr. Schwalbe's medical directory. It shows how large the number of specialists really is, for of 27,374 medical men in Germany no less than 3431 described themselves as such. There was one medical man to every 2014 of the population of the empire and one specialist to every 16,068 of the population. In Saxony there were no less than 370 specialists among 2048 medical men, the proportion thus being 1 : 5·5. The majority of the specialists, of course, resided in the large towns with more than 100,000 inhabitants, the number being 2068, or 60·3 per cent. of all the specialists; in the towns of medium size, with from 45,000 to 100,000 inhabitants, there were 512, or 14·9 per cent. of the whole, and in small towns with less than 45,000 inhabitants there were 851, or 24·8 per cent. of the whole. It might appear strange that so many specialists resided in small towns—but these latter included several university towns, with many professors and *privat-docenten*. Moreover, a great number of sanatoria, asylums, &c., were situated in small towns or in the country. Of the large towns, Stuttgart had relatively the greatest number of specialists, the number being 73, and their proportion to the general practitioners being 1 : 2·6; in Hamburg, where there were 107 specialists, the proportion was 1 : 5·2; in Berlin it was 1 : 6·4. Altona had relatively the smallest number of specialists, the total number being seven and the proportion to the general practitioners being 1 : 13·1. With regard to the classification of the several specialties it was found that 609 were ophthalmologists, 534 practiced surgery, 533 were obstetricians and gynæcologists, 516 were specialists for diseases of the ear, the nose, and the larynx, 485 for mental and nervous diseases, electrotherapy, &c., 269 for internal diseases, 224 for diseases of the skin, 134 for diseases of children, and 127 for genito-urinary diseases. In Berlin, where there were 493 specialists, 47 devoted themselves to internal diseases, 58 to mental and nervous diseases, 75 to diseases of the ear, &c., 58 to diseases of the eye, 66 practised surgery, 10 were orthopædic surgeons, 46 were specialists for genito-urinary diseases, 36 for syphilis and diseases of the skin, 77 for obstetrics and gynæcology, and 20 for diseases of children.

Operations for Gastric Ulcer.

Professor Korte lately read a paper before the Verein für Innere Medicin on the Surgical Treatment of Gastric Ulcer. He said that the principal indication for operation was stenosis of the pylorus with dilatation of the stomach as a sequel of cicatrised ulcers; operation was also sometimes indicated in open ulcers of the pyloric or præpyloric region, when the pain was very severe and could not be relieved by internal treatment. Other indications were small but repeated hæmorrhages, profuse hæmorrhages, perigastric adhesions, and perforation of the stomach. In perforation, owing to the imminent danger of peritonitis, an operation must be performed as soon as possible and not later than 12 hours after the perforation had taken place. In the other cases—viz., in stenosis with dilatation, hæmorrhages, &c.—the indication was not so absolute as it was in perforation. The dangers to be anticipated depended on the nature of the case, on the general state of the patient, on the size and position of the ulcer, on its adhesions, &c. Some of the immediate dangers of the operation, such as infection of the peritoneum and giving way of the sutures, might be diminished by the adoption of improved methods, but there still remained a liability to complications over which the surgeon had no control, among which might be mentioned pneumonia, embolism, and hæmorrhage from open ulcers. Notwithstanding these dangers an operation must not be postponed too long, as in an exhausted patient the risk became, of course, much greater. Professor Korte has performed operations on 38 patients with gastric ulcers; in 17 cases there were open ulcers and in the remainder there were cicatrices. All the patients had been ill for a great while, some of them for as long as 20 or 30 years, and all of them had undergone protracted internal treatment. Their general condition was bad and they complained of gastric pains and vomiting. In 18 cases there was hæmatemesis; in 32 cases there was stenosis with dilatation, the seat of the stenosis being as a rule the pylorus; in one case, however, it was in the duodenum, in five cases in the præpyloric region, and twice in the middle of the stomach. Apart from stenosis operations were performed once for profuse hæmorrhage, 10 times for perforation into the peritoneum, and six times for perforation into the subphrenic tissue. With regard to the methods of operation, resection ought to be performed only when there were no adhesions and when the case was suspected to be one of cancer. In five circular resections one death occurred. Gastro-enterostomy was performed 29 times with a mortality of 20·6 per cent. In one case complicated with stenosis of the œsophagus gastro-enterostomy was combined with gastrostomy. Hacker's method was exclusively used without a Murphy's button, and only one pyloroplasty was performed. One patient had to be operated on for profuse hæmatemesis, a ligature was put on the bleeding artery and it seemed as if he might recover, but after a week he died from renewal of the hæmorrhage. Nearly all the patients operated on for perforated ulcer showed the symptoms of peritonitis. The operations were performed, as a rule, from 20 to 24 hours after the perforation had taken place, the result being that out of 10 patients only one recovered. In the discussion the views of Professor Körte were received with approval by Professor Ewald, Professor Rosenheim, Professor Fraenkel, and other speakers.

June 10th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

The Society for the Study of Malaria.

THE Minister of the Interior has placed the sum of 5000 lire at the disposal of the Society for the Study of Malaria as a contribution towards the expense of the prophylactic measures which they intend to adopt during the approaching malarial season; and the King himself has set a good example to all large land-owners in malarious districts by providing a sum of 10,000 lire to be employed for a similar purpose on his estate of Castel Porzano, where it will be remembered Dr. Sambon and Dr. Low carried out their successful experiment last year. The society have provided stations for study in the provinces of Udine, Verona, Vicenza, Padua, Ravenna, Pisa, Basilicata, and Siracusa, in addition to those already established in the provinces of Rome, Milan, Cremona, Mantua, Ferrara, Foggia, and Lecce. A special effort is to be made for the protection of the agricultural population against malaria. A prophylactic experiment on a large scale will be made along the Emilian coast; and, indeed, in all the malarial districts the authorities are exerting themselves in preparing for a vigorous anti-malaria campaign during the coming season. In the city, and especially in the Campagna of Grosseto, a careful series of prophylactic experiments from which valuable results are expected has been in progress for some time. The measure of success which has already attended the efforts of the society has led some foreign Governments, including those of Spain and Portugal, to apply to it for information as to the best methods of carrying out an efficient prophylaxis against malaria.

Sanatorium for Tuberculous Children.

The birth of the new Italian Princess has been made the occasion for a handsome donation by the King of 200,000 lire (£8000) to the Commune of Rome towards the erection of a sanatorium for tuberculous children.

Malaria and Typhoid Fever.

The record of cases in which malaria and typhoid fever have co-existed in the same individual is not yet an extensive one; or, rather, the cases in which a thoroughly reliable diagnosis has been made are not numerous. At a recent meeting of the Lancisian Society of Rome, Fiocca, who is known for his accurate investigations in connexion with Widal's reaction, reported an indubitable instance of this combination. The patient, who had never previously suffered from illness, paid a visit on Oct. 4th to Leprignano; on the 15th he was attacked with malarial fever and was admitted to the Hospital of St Giacomo, where he remained until apparently cured till the 30th of the same month. He then returned to Leprignano, but was again taken ill and had to be re-admitted to the hospital on Nov. 25th suffering from a fever which continued till Dec. 28th with symptoms of typhoid fever, the blood giving a positive Widal reaction but showing no malarial parasites. After the latter date followed six days of complete apyrexia, and then, on Jan. 4th, another attack of malaria, with the presence of æstivo-autumnal parasites in the blood, which soon yielded to quinine. On the 10th the temperature again rose, ushering in a relapse of typhoid fever which continued until Jan. 22nd, when another period of apyrexia followed lasting nine days On Jan. 31st came another relapse, this time of malaria Again quinine was employed with good effect, since which time the patient has kept quite well. Here, then, were present simultaneously the infections both of malaria and of typhoid fever, the former detected by the parasites found in the blood, the latter by the agglutination reaction of Widal which was obtained at different periods and varied in intensity from a dilution of 1 in 50 to one as high as 1 in 500. It would appear in this case that there was a tendency for the two diseases to keep themselves distinct and independent; when one ceased the other, after a short interval, began. This alternation could have been due only in part, if at all, to the action of the quinine which was not administered in sufficient doses till after Jan. 15th.

Medullary Anæsthesia.

As surgeons become more familiar with the effects of medullary anæsthesia the evidence grows that as at present practised—namely, with injections of cocaine or its derivatives—the method has certain very distinct drawbacks which render its general use objectionable Bier himself who introduced the method is of this opinion after an experience of over 1200 cases Lugli, who has operated at the hospital of S. Giacomo on 75 cases, noted as immediate after effects formication in the lower limbs, a sense of weight there, or the feeling that the limbs themselves were entirely gone, pallor, retching, more or less obstinate vomiting, sweating, depression of spirits, acceleration of the pulse with diminution of arterial pressure, occasionally vertigo, involuntary emissions of fæces and of wind from the bowel, tremor more or less intense and diffused, and pain at the seat of injection. As later effects he observed headache, usually frontal, sometimes occipital, lasting not more than two days and mostly slight; increase of temperature for not more than from two to three days, generally moderate, but once or twice rising to 102° or 103° F.; rarely vomiting; very rarely vertigo and temporary difficulty in micturition; and frequently pain in the lumbar region and near the point of injection. The later disturbances are of no importance, but the effects immediately following the injection, though usually transitory, are sometimes exceedingly severe In three cases they were of the gravest and most alarming description, and in one they were attended with a fatal result This last was in a man, 60 years of age, with a hernia which had been strangulated, and perhaps gangrenous, for over three days, the subject besides of sclerosed arteries, emphysema, and generally in a condition of great gravity, enough, perhaps, of itself to have led to the unfortunate issue The quantity of cocaine was 16 milligrammes (about a quarter of a grain) and death took place after four hours

Professor Albertoni of the University of Bologna.

Professor Pietro Albertoni has now been for 25 years a medical teacher, and the completion of this long term of academical work was on May 31st made the occasion of an interesting ceremony Professor Albertoni took his degree at the University of Padua in the year 1873, and three years later, at the age of 27 years, he was nominated Professor of Physiology at the University of Siena In 1878 he removed to the University of Genoa, where he received offers of chairs in several universities, and eventually he proceeded from Genoa to the University of Bologna as Professor of Pharmacology and afterwards of Physiology, which latter subject he is still teaching. Among his numerous original investigations mention may be made of his work on the functions of the cerebellum, on the action of sugars in the body, and on the food of the Italian peasantry. His scientific pursuits, moreover, have not prevented him from taking part in politics and public life, for he is a Member of Parliament for his native Lombardy and a town councillor of Bologna A numerous company was present at the ceremonial of May 31st, and the mayor offered him the congratulations of the town which is proud to own him as a citizen He was presented by his pupils with a gold medal, the obverse of which shows his head surrounded by a laurel-wreath; on the reverse is the following inscription: "A Pietro Albertoni; I discepoli; Siena, 1876—Bologna, 1901." He was also presented with an artistically illuminated address, accompanying a volume of treatises by several medical men who have worked in his laboratories The Medical Society of Bologna presented him with another gold medal which on the obverse bears emblems of medicine and pharmacology, with the inscription, "Societas Medico-chirurgica Bononiensis"; on the reverse:—

Petro Albertonio Gazoldiensi
Physiologiae tradendae munus
Annum jam quintum et vigesimum
Summa cum laude obeunti
Sodales medici
Anno MDCCCCI.

June 7th.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

The Close of the Season.

THE Cairo season is now over and nearly all the hotels are shut except two large ones which cater for summer visitors In spite of the South African campaign and of the national mourning the season has been a fairly good one, for Egypt, instead of being visited by only a handful of Englishmen as was the case 20 years ago, has now become a winter resort for Americans, Germans, and many others. The Americans alone run special palatial steamers during January and February from New York to Alexandria *via* Italy, and though they never stay long in the country they spend their money freely to the great enjoyment of the hotels and bazaars As regards health the season has been exceptionally prosperous, for it is the first time since the beginning of the present pandemic that influenza has not been brought to us from England or America. There has therefore this year been no localised epidemic, small-pox has not been heard of among the visitors, and there have only been one or two cases of typhoid fever. Curiously enough scarlet fever, which is very rare in Egypt, has been present among some of the women and children of one of the Scotch regiments, and last summer the matron of a hospital where scarlet fever is quite unknown contracted the disease. It is difficult to know how these sporadic cases occur unless the infection is imported from England by parcel post.

Improved Steamers

By the new express steamers which carry the Indian mail from Brindisi to Port Said it is possible for patients to dine in London on Friday night and in Cairo on the following Wednesday. When these steamers were first started three years ago passengers complained bitterly of their vibration, but now the propellers have been altered and although they go at a pace of 20 knots an hour their motion is not unpleasant; in fact, in calm weather a sort of yachting excursion can be taken through the Greek Islands by Cephalonia, Ithaca, Sappho's Leap, and the Styx Their coal consumption is 120 tons per day, with 350 electric lights on board, and their mail capacity is 300 tons which represents every week 3000 bags, including 1000 for India, 800 for Australia, and 300 for Egypt, besides bags for China, Ceylon, and other places Another advantage of travelling by this route is that there are no Customs examinations between London and Egypt and a special train now runs down to Brindisi wharf close to the steamers Sometimes, as during this month when Italy is afraid of contracting plague from India, the steamer and even the train have to run through in quarantine and an Italian medical man accompanies the steamer so as to protect Europe from infection. The P & O. Company are obliged to pay him a fee of £1 per day. Mail steamers grumble at the vexatious quarantine laws, to which, however, they are obliged to submit One of their complaints is the delay which occurs at Suez As an instance of which they cite, the P & O. s s *Australia* which lately reached Suez at 6 25 P M , and pratique was refused because it was after sunset, so she could not enter the Canal until 9 A M next morning. This was especially hard as they had spent £250 in extra coaling in order to get mails and passengers quickly from Aden to Suez

Sanitary Department.

The budget has been increased this year by £3800, which allows provision for the appointment of European sanitary inspectors in Cairo, Port Said, and Suez These posts have hitherto been filled by natives who were practically useless. Dr Dreyer, a German bacteriologist, has now been appointed to Cairo, and Dr Baker, an Englishman, to Port Said. Another crying want has been remedied, for the minimum salary of native medical men has been raised from £72 to £96 per year. It is absurd to expect a trained medical man to be honest and respectable upon a small salary when he is surrounded by many temptations to increase it by unfair means which all his predecessors have employed for generations. Port Said has had no plague since last year's epidemic of May, June, and July, but a careful look-out has been kept for any new infection. Port Said is perhaps as much exposed as any other part of the world to the possibility of plague infection, for it is visited almost daily by steamers stopping to coal from India and China on the one side and Turkey and the Greek Isles on the other. An interesting experiment is being made by examining the rats of the town. All those caught in traps are kept for a week without being handled. If still alive at the end of the week it is assumed that they cannot possibly have plague and they are drowned and their bodies burnt. If, on the other hand, they die their corpses, under proper sanitary precautions, are sent for bacteriological examination and analysis. No plague has yet been discovered in the rats, but I mention it as it seems a very good method of discovering plague before it attacks human beings. The rat or the rat-flea theory of infection has been brought into prominent notice by Dr. Ashburton Thompson's report on the Outbreak of Plague in Sydney of last year. He believes, and gives reason for his belief, that the Sydney epidemic "was caused by communication of the infection from rats to man." Perhaps Port Said has never been so clean before in its life as it is now, for in addition to all plague precautions whitewashing has continued because of an outbreak of small-pox, and no less than 30,000 people out of a population of 43,000 have been vaccinated since the beginning of the year. These figures must be compared with the total vaccinations and re-vaccinations of 1898, which were 1558, and those for 1899, which were 1358. A disinfecting stove has now been given to Port Said which is used compulsorily by the natives and by the Europeans through the intervention of their consuls. There is as yet no infectious hospital, though this is a thing very much wanted. Port Said is distinctly improving in civilisation. There are now three hotels and a fourth is to be opened next winter. It seems to be generally recognised that Port Said is to be the future gate of Egypt, though the financial interests in Alexandria will probably continue to combat this view. In order to render communication easy between Cairo and Port Said it will be necessary for the Government to take over and to enlarge the existing railway line running along the Canal from Ismailia to Port Said, and this they will probably do when they succeed in coming to terms with the Suez Canal Company, to whom the present miniature railway belongs. A restaurant car has now been added to trains leaving Cairo for Alexandria, Ismailia, and Upper Egypt, so that travelling in Egypt is no longer a hardship.

European Hospitals in Cairo.

The so-called European Hospital, which was governed by the various consuls, has now been closed as being no longer necessary, for the leading nationalities have all found themselves in a position to erect a hospital of their own. The Germans and Austrians have for some years each had a hospital, while the Greeks and Italians are now about to build one. The French have just opened a very good hospital of 30 beds in the desert outside Cairo. The land was bought from the Government at the nominal rate of 1*s*. per square metre, and therefore only cost £600. The building has cost £6000 and it consists of 20 third-class beds the occupants of which pay from 2*s*. to 3*s*. per day; four second-class beds at 6*s*. per day; and six first class beds at 10*s*. a day. Besides this there are an up-to-date operating theatre and dressing-room for surgical patients, with two separate blocks—one containing four beds for isolation cases and one bed for possible lunatics and the other comprising kitchen, laundry, &c. The hospital is nursed by five sisters belonging to the well-known order in the East of St. Vincent and St. Paul.

Anglo-American Hospitals.

After some years of quiet deliberation the Anglo-Saxon community has now decided to build a private hospital in Cairo for their own needs and the Alexandria residents have at the same time come to a similar decision. In both cities a fund of about £9000 has been raised and a committee has been formed to raise more money and to decide next winter upon the purchase of land and the preparation of plans. At present English and American patients who cannot afford to pay the charges of nursing homes are dependent upon the hospitality of the German hospitals both in Cairo and Alexandria.

Cairo, June 3rd.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Reciprocity in Medical Practice in the United States.

A LEADING article which appeared in THE LANCET of Jan. 26th, taking as the text for comment an address by Dr. Emil Amberg upon the need of reciprocity in medical practice between the various States of the American Union, aroused much interest in this country. Of course, it would be but a trite remark to make that the leaders of the medical profession in the United States and a majority of the practitioners recognise clearly and confess freely that things are not as they should be with regard to medical education and laws here, and that efficient reforms might and ought to be introduced as quickly as possible. The difficulty has ever been how and where to begin. It would seem now as if an energetic and definite attempt is to be made to grapple with the problem. A committee of the American Medical Association on Organisation has recently published its report in the Journal of the Association and in other medical journals, part of which, dealing with the question of medical education reads as follows:—"As is well known the subject of medical education was taken up by the association early in its existence, and much was done to raise the standard, but in recent years little has been attempted. At the present time there are altogether too many medical colleges, and one of the greatest dangers which now threatens the medical profession in this country is found in just this fact. This is not due alone to the pouring into the profession each year thousands of illy-prepared men, with a lesser proportion it may be of those who are really fitted for their life-work, but in the commercialism, the strife, the petty ambitions and general demoralisation which go with these, including free dispensaries, free clinics, and free hospital service. The evils are brought on by ourselves and can be corrected only by our own efforts. There is to-day, however, no way for the profession of this country to act upon this question in an organised capacity. .. .... The question is one that cannot be settled by legislation nor by public sentiment, but by professional sentiment, and when this can be created in the right way and a solution of the question proposed, professional sentiment will carry out the plan adopted." With respect to medical legislation and reciprocity the same report says: "We have here a peculiar position. There are 50 different territorial subdivisions, if the district of Columbia and the territories are considered with the States, and no two of them have the same medical laws. Yet there is not a medical law on the statute books of any of the States or territories that was not put there through the efforts of physicians. ...... It is presumed that if a few States had a law that was giving satisfaction, it would not be much trouble to get that law passed in those States which had not adopted it. It may also be presumed that if the profession asked for the same enactment in every State and persisted in its demands, it would in time get such a law. The profession would be working for a common purpose in every State in the country, and before long the essential features of the ideal law that was agreed upon would be adopted. At present, however, there seems to be no way by which the various State societies can get together to consider such a matter. The need of reciprocity comes from the fact that in enacting medical laws in one State no regard has been had for what might be done in this direction in another." Each State is indeed a law unto itself and only takes such action in medical legislation as its medical advisers represented by the State societies deem will best suit its own interests, and ignores the fact that the brethren in neighbouring States may be injuriously affected by such legislation. However, all this is well known in every part of the United States, and a large number of medical men in Great Britain are almost as conversant with the true condition of affairs. It is hoped that by careful organisation of the medical profession throughout America this anomalous and, to a great extent, disastrous situation may be changed and reforms introduced which will place the question of inter-State reciprocity on a sound and workable basis. In the report the members of the committee explain at length the steps which in their opinion should be taken to bring about so desirable a consummation, and they conclude by expressing the belief that their recommendations are in no way Utopian or impracticable, but that they are such as can be carried out in every part of their great country and that they will result in a scientific, social, and material benefit to the individual and to the profession as a whole, as well as to the well-being of the people. There can be no doubt that necessary reforms will not be put through at once or without much difficulty, but a beginning must be made and it is a healthy sign that the association intend to push forward.

The Cost of Crime in the United States.

Mr. Eugene Smith of New York has recently published in pamphlet form a paper on this subject which he read before the National Prison Association at its annual meeting of 1900 held at Cleveland, Ohio, and which contains much interesting information. In analysing the statistics of certain large cities in the United States where the statistics are known to be accurate and complete, the following figures are given as the cost of crime in New York, Cleveland, Chicago, St. Louis, San Francisco, Richmond, Charlestown, Savannah, and New Orleans. The cost of crime in the city of New York paid from city and county taxation reaches the portentous total of $20,000,000 (£4,000,000), giving an average charge of over $6 (£1 4*s.*) for each individual in its population. In San Francisco the average charge per person is about $5 (£1), and in the other cities named the per capita tax runs with slight variation, from $3 (12*s.*) to $3·50 (14*s.*). The striking excess of the rate in New York and San Francisco above that of the other cities is explained in part by one very important fact—in New York and San Francisco the rate includes county taxation while the rate in other cities does not. From such light, says Mr. Smith, as can be gained from the reports of these cities and from other sources it would appear that about $1 (4*s.*) should be added to the prevailing per capita rate of from $3 (12*s.*) to $3 50 (14*s*) in order to include county taxation. This makes the total amount of both city and county taxation caused by crime paid by the dwellers in cities average from $4 (16*s.*) to $4·50 (18*s.*) for each inhabitant; but to cover variations and to make the final result a conservative one I should prefer to reduce the estimate as low as $3 50 (14*s.*) per capita. Mr. Smith estimates that there are at least 250,000 criminals in the United States and that each one earns yearly on an average *$1600 (£320)*, representing an annual aggregate income of $400,000,000 (£80,000,000). To this must be added the yearly taxation caused by crime of $200,000,000 (£40,000,000), giving the enormous total of $600,000,000 (£120,000,000). These figures are startling in their magnitude and even if they are exaggerated somewhat they convey a fairly accurate notion of the cost of crime from a pecuniary standpoint.

Obituary.

THOMAS BOND, F.R.C S. ENG., M B , B.S. LOND.

MR. THOMAS BOND, whose death under very sad circumstances we announced in THE LANCET of June 8th, p. 1618, was a man of many parts. Coming of a Somersetshire family he not only had numerous county friends, acquaintances, and experiences, but in his career as surgeon in the Prussian service, to a large London hospital, to the police, and to sundry railway companies, as well as being a well-known figure in the hunting field, he accumulated experiences among all classes, and there was, perhaps, no medical man who could recall more remarkable incidents of practice. He commenced his medical studies by being a pupil of his uncle, Dr. McCann of Southampton. Coming to London he entered at King's College Hospital and gained the Gold Medal at the B.S. examination of the University of London. His first appointment was that of house surgeon to Sir William Fergusson of whom he could tell many stories. Once when the carotid was cut and spouted freely Fergusson did not stir, but said to Bond, "Put your finger on it, mon." Whilst he (Fergusson) was excising the knee he cut the popliteal artery and forthwith amputated. Then turning to the gallery he said, "You notice, gentlemen, that in the middle of the operation I changed my mind." After having dined at Greenwich Bond was made to walk all the way home with him.

In 1866, having finished at the hospital, Mr. Bond joined the Prussian military service where he had full experience of a cholera epidemic He was himself saved by a heroic dose of castor oil taken at the onset. He further ventured his neck in carrying a despatch from the Prussian, through the Austrian, into the Italian lines. Returning home he set up practice in Westminster, succeeding to that of "old Dr. McCann" of Parliament street, and lived for a time in Delahay-street before going to Broad Sanctuary. His first experience of railway accidents consisted in his train being overturned into shallow water, when he gave immediate aid to the injured. His last important work was in connexion with the Slough accident, which obliged him whilst suffering to travel as far as Balmoral one way and Penzance the other.

Having set his mind on being one of the staff at the Westminster Hospital, he had to face several contested elections before winning the post, which he did in 1873 Even then he spent practically all his life there as assistant surgeon, so that he had no opportunity of following up the promise he gave as a student of becoming a prominent operating surgeon. It was only some five years ago that he was appointed full surgeon. The surgery he chiefly had to do was, to use his own words, "of the fore and aft sort." When he at last did become full surgeon it was too late for him to begin many modern operations. Besides, his accommodation was defective and he had scarcely as much "nerve" in the operating theatre as when riding at a fence. He had, indeed, evidently been much impressed by the large mortality which attended the surgery of former days, and this impression weighed heavily against himself when illness came.

One day he was called into the Law Courts at Westminster where a judge had been seized with apoplexy, a case which started his large legal connexion and at the same time introduced him to the judge's daughter whom he married. It is mournful to think that she also had a lingering and painful illness before her death some two years ago. His house being near the headquarters of the police and his service as surgeon to the A Division, to which he was appointed in 1867, led to his connexion with many important criminal causes. Among these were the case of Kate Webster, the Lamson case, the Pearcey case, the Whitechapel murders, and the Lefroy case. By common consent he was the best of medical witnesses. His clear evidence inspired the bench and the bar with the fullest confidence, and he was never afraid to say "I don't know." His reminiscences put novels of the "detective" order into the shade. His extraordinary experience of railway accidents rendered him proof against malingering of whatever kind, although he had sometimes to expose frauds which had imposed upon less experienced men. It would have been better perhaps for him if he had confined himself to strictly medical duties and not yielded sometimes to pressure put upon him by the railway companies to act as a go-between in fixing the amount of compensation for accidents.

As regards non professional occupations Mr. Bond was brought up to horses from a boy, and he rode well and hard with a good seat and at a pace which did not spare his horse He hunted regularly, of late years chiefly with the Badminton hounds from Chippenham. But what he looked forward to most of all was the staghunt on Exmoor in August and September, riding out to the meets from his house at Dunster. He knew his way among the bogs as a native, he could get down and up again out of a combe quicker than most, and none knew better where to wait for the stag to break up from the woods by the sea near Glenthorne. Perhaps of all his accomplishments he himself set most store on his knowledge of horseflesh, as controversial a matter as the medico-legal subjects in which so much of his practice lay. He often acted as judge at the more important horse shows. His multifarious duties strained the health of a really strong man. He would return to Paddington by night and sleep on in the carriage until morning, then do a full day's work, and after that sit up late over legal and police reports. Riding tended of late to irritate a slight organic contraction and the spasm set up led to instrumentation often under unfavourable circumstances, so that a lesion attended by thickening was started at and below the neck of the bladder, whilst the organs above remained healthy throughout. Hence a terrible vicious circle, the necessity for instrumentation, and the spasm and radiating pains which this caused.

In addition, latterly there were attacks of general rheumatic pains with rigors and sweating. Insomnia in middle life from overwork had tempted him towards the use of narcotics. Even then he used to say that the impulse which afterwards caused his death forced itself into his mind and it constantly recurred when he was driven wild by pain during his last illness. He retained, except when suffering, those characteristics which will recall him to that vast number of acquaintances who have heard of his sad death with grief. He was buried on June 10th in the little country churchyard of his old home at Orchard Portman.

JAMES AITKEN MYRTLE, M.D. Edin.

As we announced in our issue of June 8th Dr. James Aitken Myrtle died very suddenly on June 1st. Dr. Myrtle, who was in his 41st year, was born in Harrogate and educated at Winchester College and Edinburgh University, where he graduated as M.B. and C.M. in 1882. He then proceeded to Vienna and Würzburg to study diseases of the skin and other special branches of medicine and after about one year's absence he returned home and joined his father, Dr. A. S. Myrtle, in practice at Harrogate. In 1885 he graduated as M.D. He was co-editor with his father of a book entitled "Practical Observations on Harrogate Mineral Waters" and he also contributed papers upon "Paroxysmal Hæmaturia" and "Gout, Rheumatism, and Rheumatoid Arthritis" to the medical journals. Dr. Myrtle was well known as a politician. In the field of medical politics he was an ardent advocate of medical defence—a subject which he brought forward at many meetings of the British Medical Association, notably at Edinburgh in 1898. But if in professional politics he was a reformer, in those of the State he was a strong Conservative. He had been a member of the town council for five years, and at the time of his death was serving as mayor for the second time. A keen sportsman and in his younger days a good all-round athlete, his greatest pleasure was hunting and he was a bold and skilful horseman. He was surgeon-lieutenant to the Yorkshire Yeomanry Hussars and had always taken a keen interest in volunteering, having been a member of the cadet corps at Winchester. In 1887 he married, but he had no children. The funeral took place on June 5th, the procession from the church to the cemetery including officers and men of the Yorkshire Yeomanry Hussars, the local members of the 1st Volunteer Battalion West Yorkshire Regiment, and the civic dignitaries and members of public bodies.

Notification Prosecutions.—At the Exeter Police-court on June 7th five persons were fined in sums ranging from £1 10*s*. to half a crown for failing to notify cases of scarlet fever and permitting children suffering from it to be at large. The town clerk stated that the medical officer of health had visited the schools and found about a dozen children in the desquamating stage of scarlet fever. These cases had produced an epidemic of the disease and through the neglect of the parents had cost the city from £300 to £400.

The State Children's Association.—In the fourth annual report of the State Children's Association reference is made to a speech by Mr. Chaplin in which, while congratulating the barrack school officials on the improvements recently effected in the schools, he said that the policy of the future would be that of rearing children by methods of segregation—which are the methods the association exists to promote—and to a quotation from a circular issued by the Local Government Board to every board of guardians suggesting "that by the provision of cottage homes, by the hire of scattered homes, by boarding-out and emigration, children might be entirely removed from the workhouse and its associations. There are still 3141 children in the metropolitan infirmaries and workhouses—a larger number than in 1894—notwithstanding the official condemnation of the practice of keeping children in such unsuitable environment, and although barrack schools have been condemned the expenditure of £48,000 has within the last five years been sanctioned by the Local Government Board on their structural improvement. The report, which is an instructive document dealing with social reform, can be obtained at the offices of the association, 58, Old Broad-street, E.C., and from Messrs P. S. King and Son, 2 and 4, Great Smith-street, Westminster.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

◆

Thursday, June 6th.

The Council met to-day with Sir William Turner, the President, in the chair, and resumed the work of its session.

Recognised Scientific Institutions.

The Executive Committee presented a report in which there was submitted for the approval of the Council a list of scientific institutions other than universities or schools of medicine recognised by licensing bodies as places where the course of medical study may be commenced by applicants for registration in the Medical Students' Register.

Several members took exception to the list and it was arranged that it should go back to the Executive Committee for amendment.

The Case of Walter Randall Knightley, R.N.

The Council then took up the consideration of the case of Walter Randall Knightley, R.N., registered as Mem. R. Coll. Surg. Eng., 1892; Lic. R. Coll. Phys. Lond., 1892, who had been summoned to appear before the Council in consequence of a judgment given in the High Court of Justice, Probate, Divorce, and Admiralty Division on Dec. 21st, 1900, in the case of Harvest *v.* Harvest and Knightley.

Mr. Knightley attended with Mr. Cripps, K.C., M.P., and Mr. Heaton, solicitor, as his legal representatives.

The President explained that the case would be conducted by the solicitor to the Council.

Mr. Winterbotham said that the case was one in which there was no complainant. His attention had been called to it by what had appeared in the public press and he thought it was a case which should be brought to the notice of the Council in order that it might consider whether Mr. Knightley's conduct was such as came within the definition of "infamous conduct in a professional respect." The facts in the case were that Mr. Knightley was a surgeon in the Navy and was on duty at Gosport when called in to attend professionally the wife of Major Harvest and the jury found that Mr. Knightley committed adultery with Mrs. Harvest and gave the petitioner £4000 damages. Mr. Winterbotham read to the Council the charge to the jury delivered by Sir Francis Jeune, President of the Court, in which Mr. Knightley's conduct was severely condemned.

Mr. Cripps, in addressing the Council, said that the main point he wished to press was the question whether anything could be shown in mitigation. He was not instructed by the solicitors who had conducted Mr. Knightley's case in the divorce proceedings and what he wished to urge was that the Council should postpone consideration of the case. He asked this because if his client were struck off the Register that *ipso facto* would deprive him of his position in the Royal Navy as a medical officer. His client had begun his connexion with the Royal Navy in 1893. He had served on H.M.S. *Excellent*, on H.M.S. *Albacore*, on H.M.S. *Camperdown*, and as surgeon to the Royal Marines. After the divorce case all the documents in the case had been placed before the naval authorities, and subsequently to examination of them Mr. Knightley had been appointed as surgeon to H.M.S. *Harrier*, a position which he at present occupied. The certificates he had received from the captains he had served under showed that he was a man of sobriety and good conduct. Having now been in the navy for nearly eight years Mr. Knightley required to serve only eight months more to earn a gratuity of £1000 on retirement. He, however, wished to remain a naval officer. He did not wish to retire from the service, nor did he intend, should he retire from the navy, to follow the practice of an ordinary medical practitioner.

Mr. Knightley was asked to go into the witness-box. He went there and bore out the statements of Mr. Cripps as to his naval career and mentioned that his family, as a compromise, had paid £3000 in respect to the damages awarded by the jury in the divorce case.

No questions were asked by the Council. After deliberating on the case *in camerâ*

The President announced the Council's decision. Addressing Mr. Knightley he said: I have now to tell you that the Council has judged you to have been guilty of "infamous conduct in a professional respect" and has directed its registrar to erase your name from the Medical Register.

Dental Cases.

The REGISTRAR (Mr. ALLEN) read a report by the Dental Committee on the case of Mr. George Thomas Ockleford Crocker, which was as follows:—

The complaint against George Thomas Ockleford Crocker having been referred to the Dental Committee to ascertain the facts the
[illegible] follows On Feb 26th, 1901, the
[illegible] attended before the committee
[illegible] James Lorden Crocker (by Mr
[illegible] inant; and Mr George Thomas
[illegible], his counsel, instructed by Mr.
[illegible]
[illegible] ng facts were established by the
[illegible] d Crocker was registered in the
[illegible] July 22nd, 1878, and his address
[illegible] uthampton. (b) In the month
[illegible] complained of occurred, Mr.
[illegible]
dated June 19th and Nov. 4th, 1900.

Mr. Percy James Nicholls appeared with Mr. Crocker as his solicitor.

It was decided to hear parties rather than to proceed forthwith on the report from the Dental Committee.

Mr. NICHOLLS said that in these circumstances he did not know what the procedure could be, as the complainant, Mr. Crocker's brother, was not present.

Mr. TOMLS, Mr. HORSLEY, Sir WILLIAM THOMSON, Dr. GLOVER, and Dr. McVAIL wished for further information, and Mr. CROCKER went into the witness-box and answered several questions put to him by those members. Thereafter the case was considered *in camerâ*. On the readmission of the public

The PRESIDENT, addressing Mr. CROCKER, said: The Council has deliberated on your case and the Council acquits you.

The REGISTRAR read a report by the Dental Committee on the case of Mr. Alexander Wood Donaldson, dentist, Bury St. Edmunds, Suffolk. This report was as follows:—

The complaint against Alexander Wood Donaldson having been
[illegible] ain the facts, the Dental
[illegible] Feb. 26th, 1901, the said
[illegible] ersonally, but Mr. Arthur
[illegible] l was duly heard The
[illegible] were established by the
[illegible] was registered in the
[illegible] uly 22nd, 1878, and his
[illegible] , Whiting street, Bury
[illegible] registered dentist he
[illegible] the *description* R.D S.,
[illegible] lescription R D.S Eng.,
[illegible] eclaration read by his
solicitor) apologised for what he had done, stating that he erred
[illegible]
[illegible] . Donaldson to the solicitor to the
[illegible] Jan. 30th, 1901, with copy advertisement inclosed; and an affidavit of Mr. Donaldson, dated Feb. 26th, 1901.

Mr. TOOVEY appeared to represent the accused and presented a medical certificate showing that Mr. Donaldson was not in the a fit condition of health to travel to London

After consideration of the circumstances the Council resolved that further consideration of the charge should be postponed until the November session, the PRESIDENT informing Mr. Toovey that the Council would expect Mr. Donaldson to appear then.

In the course of some conversation on the case it was suggested that "R.D S." meant "Registered Dental Surgeon."

The Council and the English Royal Colleges.

The Council proceeded to the consideration of communications from the Royal College of Physicians of London and the Royal College of Surgeons of England declaring that these Colleges could no longer require the registration of students by the General Medical Council as a condition of admission to examination for their diplomas.

The PRESIDENT pointed out that the letter from the Royal College of Physicians was a communication forwarded on behalf of the President and Fellows of the College, whereas that from the Royal College of Surgeons was sent on behalf of the College.

Mr. BRYANT, in answer to Mr. HORSLEY'S inquiry as to whether the communication from the Royal College of Surgeons had been presented to the Fellows of the College, stated that the letter came from the Council who are the executive body which governs the College of Surgeons.

Dr. McVAIL said that the new regulations of these Colleges seemed doubtful in respect to the length of the medical curriculum He wanted to have it made quite clear if there was to be a five years' medical course subsequent to the passing of the preliminary examination in arts.

Dr. NORMAN MOORE: The medical study of a student must be study after he has passed his preliminary examination.

Dr. McVAIL: Do the Royal Colleges recognise chemistry, physics, and biology as medical studies?

Dr. NORMAN MOORE These subjects are included in the curriculum and are part of what is meant as medical study.

Dr. McVAIL was not sure that the Colleges took that view, because they permitted the subjects in question to be taken before the passing of the preliminary examination and thus practically reduced the medical course of study from five to four years.

Dr. NORMAN MOORE said that the Royal College of Physicians had never intended so to reduce the curriculum.

Dr. McVAIL hoped that it was so, and he would be delighted to have it made perfectly clear that the Colleges contemplated not a four years' medical course after the preliminary examination but in reality a six years' course where chemistry, physics, and biology were taken before the preliminary examination. He thought an investigation of the actual terms of the new regulations was very necessary.

Sir CHRISTOPHER NIXON thought the statement of Dr. Norman Moore had cleared up a great deal that was doubtful in this matter. From the statement it was quite clear that the Royal Colleges intended to retain the *five years* after the preliminary examination. In these circumstances, what did the whole dispute between the Council and the Colleges amount to? Simply this, that the Colleges recognised a larger number of scientific institutions than was recognised by the Council. That surely was a small matter to produce so much cleavage, and if it really was the question in dispute it surely could *be settled by some amicable arrangement.* It would be disastrous if there was to be a continuance of difference over such a matter. What he thought the Council would have to do was to find out what scientific institutions had the proper means of teaching the required subjects and recognise such institutions when found.

It was agreed to postpone further discussion till the next *day and the Council adjourned.*

FRIDAY, JUNE 7TH.

The Council resumed work to-day with Sir WILLIAM TURNER, the President, in the chair.

The President and the British Association.

The PRESIDENT said that with the consent of the Council he would leave the chair for about an hour in order to preside at a meeting of the Council of the British Association, and in accordance with custom he would ask the senior treasurer, Mr Bryant, to take his place during his absence.

The proposal met with the approbation of the Council.

The Council and the English Royal Colleges.

The first business on the programme was the consideration of the communications from the English Royal Colleges with regard to the resolution adopted by the Council on Dec. 4th, 1900, viz:—

That the Royal Colleges be informed that the Council, having taken into consideration the memoranda of the Colleges and the legal opinions relating thereto has resolved to continue to adhere to its resolution with regard to the registration of medical students.

The communications as set out in the programme were as follows, viz. :—

(a) From the Royal College of Physicians.

London, S.W., May 14th, 1901.

Sir,—I am requested by the President and Fellows of this College to acquaint you, for the information of the General Medical Council, that in consequence of the adherence of the Council to their Regulation of June 7th, 1899, in reference to the registration of students, as announced in their resolution of Dec. 4th last, this College can no longer require the registration of students by the General Medical Council as a condition of admission to examination for its diplomas; and that, in accordance with the same decision on the part of the Royal College of Surgeons of England, the regulations for the qualifications of the two Colleges have been altered as in the inclosed copy.

I am, Sir, your obedient servant,
Edwd. Liveing, Registrar.

To the Registrar of the General Medical Council.

(b) From the Royal College of Surgeons of England.

Royal College of Surgeons of England, Lincoln's-inn-fields,
London, W.C., May 13th, 1901.

Sir,—I am directed to inform you that, in consequence of the adherence of the General Medical Council to their Regulation of June 7th, 1899, in reference to the registration of students, as announced in their resolution of Dec 4th last, this College can no longer require the registration of students by the General Medical Council as a condition of admission to examination for its diplomas, and that in accordance with this decision and with the same decision on the part of the Royal College of Physicians of London the regulations for the qualifications of the two Colleges have been altered as in the inclosed copy.

I am, Sir, your obedient servant,
S. Forrest Cowell, Secretary.

The Registrar, General Medical Council.

(c) Regulations Appended.

SECTION I.

Professional Education.

I. Any candidate who desires to obtain the Licence of the Royal College of Physicians of London and the Diploma of Member of the Royal College of Surgeons of England is required to complete* five years of professional study after passing a recognised preliminary examination on the subjects of general education, to comply with the following regulations, and to pass the examinations hereinafter set forth. (See Section II.)

II. Every such candidate who shall commence professional study on or after the 1st of January, 1892, will be required to produce the following certificates before admission to the several examinations:—

First Examination.

1. Of having passed one of the preliminary examinations in general education recognised by the Examining Board in England, a list of which may be obtained on application.
2. Of having received instruction in the following subjects:—
   † (a) Chemistry and physics, and practical chemistry.
   ‡ (b) Practical pharmacy.
   † (c) Elementary biology.

SECTION II.

VI. A candidate will be admitted to examination in chemistry and physics and elementary biology on producing evidence of having complied with the regulations prescribed in Section I., Paragraph II., Clause 2 (a) and (c); and to examination in practical pharmacy on producing evidence of having complied with the regulations prescribed in Section I., Paragraph II., Clause 2 (b), *or he may take pharmacy at any time during the curriculum.*

XII. Candidates will be admissible to the second examination on the completion of two winter sessions and one summer session (or 15 months during the ordinary sessions) at a recognised medical school and after the lapse of not less than one year (one winter and one summer session) from the date of passing Parts I. and III. of the first examination, and on producing evidence of having complied with the regulations prescribed in Section I., Paragraph II., Clauses 3 and 4.

XVII. Candidates who have passed the second examination will be admissible to the third or final examination on production of the required certificates of study at the expiration of five years (five winter and five summer sessions) from the date of passing the preliminary examination and at the expiration of four years (four winter and four summer sessions) from the date of passing Parts I. and III. of the first examinations and of two years (two winter and two summer sessions) from the date of passing the second examination.

---

* The first of the five years may be spent at an institution, other than a medical school recognised by the Board, for instruction in chemistry, physics, practical chemistry, and biology, or six months may be spent in attendance at a similar institution in receiving instruction in chemistry, physics, and practical chemistry only. Four complete years of professional study must be attended at a recognised medical school and hospital after passing Parts I. and III. of the first professional examination.

† These subjects may be studied at institutions recognised for the purpose by the Examining Board in England, a list of which may be obtained on application.

‡ The instruction in practical pharmacy must be given by a registered medical practitioner, or by a member of the Pharmaceutical Society of Great Britain, or in a public hospital, infirmary, or dispensary.

Dr. McVail asked for information about Part II.

Dr. Norman Moore said that Part I. was chemistry, physics, and practical chemistry, Part II. pharmacy, and Part III. biology.

Dr. McVail then pointed out that the regulations were not complete.

Dr. Norman Moore said that the only regulations sent to the Council on this occasion were those in which alterations had been made, but of course the Council already possessed the regulations in their entirety.

Mr. Horsley thought the document in its present form was incomprehensible.

Dr. MacAlister said that what appeared on the programme was precisely what had been sent to the Council by the Royal Colleges.

Dr. Heron Watson submitted that the Council should not be asked to discuss this important matter until they had the whole state of the case before them.

Dr. Norman Moore assured the Council that the Royal Colleges would be delighted to supply members with the complete regulations.

Dr. MacAlister, seconded by Mr. Young, moved that the communications be received and entered in the minutes and that notes be added explanatory of the references.

Dr. McVail thought there should be a postponement.

Dr. Heron Watson said that he wanted to pin the Royal Colleges down to what their regulations were.

The motion was put from the chair and accepted without a vote.

Dr. McVail then moved that the consideration of the subject be adjourned until the members of the Council had obtained copies of the complete regulations.

Dr. Norman Moore said that the Royal Colleges could not supply copies of the obsolete regulations, but they could and would supply copies of the regulations now in force. He objected to Dr. Heron Watson speaking about pinning the Royal Colleges down. All that had been done had been done openly, and he did not think it was an expression which should be used about any qualifying body.

Dr. Glover protested against this waste of time.

Dr. Heron Watson seconded the motion for the adjournment.

On the vote being taken 12 members voted for the motion, 10 against it, and 9 abstained from voting.

The consideration of the communications was accordingly adjourned.

Annual Report of the Finance Committee.

The Council then dealt with the report by the Finance Committee on the income and expenditure for 1900. The report stated that the income of the General and Branch Councils for the year ending Dec. 31st, 1900, was £8657 8s. 7d. and the expenditure for the same period £9694 19s. 8d. Consequently there was a deficit on the year's working of £1037 11s. 1d. The receipts from fees were practically the same as in 1899, England having received £140 15s. less, Scotland £77 13s. more, and Ireland £73 17s. 6d. more, the net total increase being £10 15s. 6d. The actual law expenses in 1899 were £612 2s. 6d. and in 1900 they were £557 1s. 5d., a decrease of £55 1s. 1d. During the last seven years, the Pharmacopœia being excluded, the expenditure had exceeded the income on an average by £1044 1s. 1d. The total sum expended on the alteration of the Council's buildings had been £3263 19s. 6d. The expenditure on the acquisition of the property and its subsequent alterations amounted to £25,770 19s. 6d., against which the English Branch Council held a mortgage of £25,500 at 3 per cent., leaving an unsecured debt of £270 19s. 6d., which it was proposed to secure by a further endorsement on the mortgage deed. With regard to the Irish Branch Council, its receipts from fees were £886 and its expenditure was £1199 18s. 8d., leaving a deficit on the year's working of £313 11s. 2d. The Council made a grant of £500 to its funds, and a balance was brought forward from 1899 of £62 6s. 2d., so that the cash in hand at the end of the year amounted to £248 15s. Supposing that the income for 1901 was the same as that for 1900—viz., £886—by adding it to the balance in hand they got a total of £1132. The expenditure for 1900 was £1200, and the committee, in view of the fact that the expenditure would probably be rather higher this year on account of the cost of the election of a Direct Representative, recommended that a further grant of £500 be made to the Irish branch. As to dental finance, the receipts were £992 4s. 5d. and the expenditure amounted to £735 14s., leaving a surplus of £256 9s. 7d. on the year's working.

Mr. Bryant, chairman of the committee, moved that the report be received, entered on the minutes, and adopted. He pointed out that the expenditure included such items as the grant of £500 to the Irish Branch Fund, which was received back, and the contribution of £215 to the Sinking Fund, a fund which was a gradually increasing asset of the Council. The receipts and expenditure in connexion with the

Pharmacopœia were now kept in a separate account. This account showed a deficit on the year of £288 8*s.* 7*d.*, but he was told that there was at present about £290 in the hands of the printer, so that there was really no deficit.

Dr. **PETTIGREW** seconded the motion.

The motion was adopted by the Council.

The Finances of the Council.

Mr. **BRYANT** said that he had a report to hand in on the finances of the Council, prepared by Mr. E. R. Frere, the professional accountant selected by the treasurers in accordance with the resolution of the Council of Dec. 5th, 1900. He had three points to put before the Council, whether they should discuss the report *in camerâ*, whether they should have a shorthand writer to take a full report of what was said, or whether each member of the council should be asked to send in to the Finance Committee any suggestion he wished to make with reference to the subject of the report

Mr. **HORSLEY** said that as this was the expenditure of public money he thought it should be discussed in public

The **PRESIDENT**: Do I understand that no one suggests that this matter should be discussed *in camerâ?*

Dr. **PYE SMITH**: Yes, many of us.

Dr. **BENNETT**: I move that it be discussed *in camerâ.*

Dr. **PYE-SMITH**: I second.

Mr. **HORSLEY** said that he hoped the Council would not accept the motion, for he held strongly the opinion that the matter should be discussed publicly.

On a vote being taken 14 members voted for the motion, 13 against it, and four abstained from voting either way.

The Council accordingly went into *camerâ* for the consideration of Mr. Frere's report.

In this report Mr. Frere deals with the subject referred to him under several headings Under the heading of "The Relation of the Income and Expenditure of the Council and its Branches for the last Ten Years" he says:—

One of the chief difficulties in the situation is Section XIII. of the Act of 1858, which is as follows —

XIII —All moneys payable to the respective councils shall be paid to the treasurers of such councils respectively and shall be applied to defray the expenses of carrying this Act into execution in manner following, that is to say, separate accounts shall be kept of the expenses of the General Council and of those of the branch councils, and the expenses [illegible] keeping, printing, and pub- [illegible] shall be defrayed, under [illegible] of an equal percentage [illegible] branch councils; returns [illegible] ective branch councils at [illegible] ect of all moneys received by them, and the necessary percentage having been computed by the General Council the respective contributions shall be paid by the treasurers of such branch councils to the treasurer or treasurers of the General Council, and the expenses of the branch councils shall be defrayed, under the direction of those councils respectively, out of the residue of the moneys so received as aforesaid

[illegible] awn there were doubtless good reasons [illegible] on was inserted It was contemplated [illegible] be able to pay their way and have an [illegible] contribute the equal percentage rate, [illegible] e "residue" mentioned was calculated [illegible] ranch councils to exist. Owing, however, to the heavy annual demands of the General Council especially of late years, it has been found that the branch councils have in some years been obliged to realise portions of their invested funds in order to meet their own office expenses In the case of the Irish branch the reserve is exhausted

The following is a quotation from the report of the Special Finance Committee: "The fact, however, remains that the branch can only [illegible] and the Council and its branches looked upon as one body.

For the 10 years under review, 1890 to 1899, the total deficit, as shown by the report of the Special Finance Committee (including the Pharmacopœia), amounted to about £1100—or an average deficit of £110 per annum

This statement, however, is not a reliable guide when we come to consider the future.

Dealing with the same period, but excluding the Pharmacopœia, which is in future to be kept separate, it will be found that the first three years show an average annual surplus of upwards of £1140; the last three years show an average annual deficit of upwards of £1820; the actual deficit for the year 1900 being £1037 11*s.* 1*d.*

From this it is apparent that the surplus saved by the branch councils in former years is gradually diminishing a state of affairs which should not be allowed to exist, and which calls for earnest consideration and prompt action on the part of the Council.

Under the heading of "The Measures that Appear to be Desirable to place the Council's Finances on a Satisfactory Basis" Mr. Frere says:—

The simplest solution of the difficulty and, so far as I can see, the only means by which the Council can carry out its duties under the existing Act, without further reducing the surplus funds of the branches, lies in a very considerable reduction of the fees and expenses paid to the individual members of Council. The following are my recommendations: 1 That the fees for attendance be reduced from £5 5*s.* to £3 3*s* 2. That the additional fees for days of travelling be abolished 3 That instead of the present travelling allowances members should be recouped their actual disbursements under this head. 4. That steps should be taken to shorten as far as possible the sessional business. 5 It might be arranged that, except in special cases, the work of the committees should be done without fee.

I beg to add that I do not consider the present fee of £5 5*s* to be excessive considering the length of absence from ordinary duties which the meetings involve If these recommendations were carried out I estimate that there would be a saving in the expenditure of upwards of £1400 Unless measures such as the foregoing are adopted the only alternative is to materially increase the income, and the only possible way of doing this would appear to be by means of further legislation.

An Opinion as to whether Invested Funds are to be considered as Capital to be held intact.

When the Act came into force it would have been good policy to have capitalised all the retrospective fees and have treated the fund thus created as pure capital to be held intact. As the Act stands, however, all registration fees are clearly income and the present invested funds are accumulations of income.

As to the Method of Accounting.

I understand that some Members of the Council are of opinion that the form in which the accounts are issued is capable of improvement, and I have been requested to redraw those for 1900 with the object of showing clearly the result of each year's work and the financial position from year to year The accounts appear to me to have been prepared with great care and in full detail It is of course necessary from the treasurer's point of view that accounts containing this full detail should be prepared and filed, but as any difficulty there may be in following them probably arises from the publication of an excess of detail I have redrawn the accounts for 1900 in the form I should suggest for publication.

As to the Relations between the General Council and the Branch Councils under a New Act.

It appears to me from an ordinary business point of view that the relation between the General Council and the Branch Councils requires readjusting. When the Act of 1858 was drawn the present conditions were not foreseen, and no mention is made as to the accumulation of a surplus by the branches. I have already referred to the grant to the Irish Branch Council which, briefly stated, means that the Council have been obliged to assist the Irish branch at the expense of the English and Scottish branches Again, assuming that the General [illegible] registrations, which would materially increase the funds and [illegible]

When strangers were re-admitted no statement was made as to what had taken place *in camerâ.*

The Pharmacopœia.

Dr. **MACALISTER** presented the following report from the Pharmacopœia Committee:—

[illegible] Addendum had been sold

The collection of books relating to pharmacy and the Pharmacopœia has been arranged and catalogued under the supervision of Dr. Payne, to whom for this service and for the valuable additions he has himself made to the library the committee are much indebted. The committee also desire to express their thanks for welcome gifts of books from [illegible] room. At the invitation of the committee two important series of investigations have been undertaken, under the direction of Professor Greenish, in the research laboratories of the Pharmaceutical Society of Great Britain. The results have in part been published in the *Journal* of the society under the titles of "The Percentage Ash of Crude Drugs and their Powders" and "Determination of the Accuracy or Otherwise of the Solubilities given in the British Pharmacopœia." The researches when complete will be of great value in relation to the next revision of the Pharmacopœia. Other investigations undertaken at the instance of the committee in accordance with suggestions made at its conference with the representatives of the pharmaceutical societies are in progress, and the results will in due time be made public.

Dr. BRUCE asked for information as to how far the question of copyright came in and what steps had been taken to secure the copyright.

Dr. MACALISTER replied that the Executive Committee, to whom the matter had been remitted, had been active on the subject during the interval between this and last session, and so far as this country was concerned there was not the slightest doubt that the General Medical Council had the exclusive right of publication. There were good grounds for believing that the Act which applied to the United Kingdom was an Act of Imperial extent and applied to the colonies and India.

The report was received and entered on the minutes.

The Standard of Preliminary Examinations.

Dr. MACALISTER, on behalf of Sir John Batty Tuke, submitted a report of the Education Committee on the steps taken for raising the standard of preliminary examinations. This stated :—

The Education Committee, in pursuance of the authority given them by the Council "to take all needful steps to give effect to the recommendations and suggestions for the improvement of preliminary examinations," have, since the last meeting of the Council, continued their negotiations with the various examining bodies and have, in the case of several of these, arrived at highly satisfactory results With the valuable assistance of Professor McCormick, who has, in association with members of the committee, held conferences with various bodies in different parts of the country, they have come to an understanding with the authorities of Oxford, Cambridge, and Durham as to the enhanced requirements which, after Jan. 1, 1902, will be enforced in respect of their respective examinations The committee recognise with satisfaction the readiness with which the authorities of Oxford and Cambridge have met their wishes, and realise that the new conditions mark a considerable advance in the standard of attainments required of candidates who seek to qualify for the Students' Register by means of their local examinations The improvements to be made in the Durham certificate of proficiency examination are important, and may, for the present, be accepted as fulfilling the minimum requirements of the Council. But the committee are not satisfied that they bring the examination fully up to the level of the other University examinations in their revised form, and they hope that ere long a further advance will be made by the Senate of the University of Durham.

The junior local examinations of the University of Edinburgh and the University of Aberdeen and the preliminary examination of the Victoria University will, with the assent of these Universities, cease to be included in the list of recognised examinations on Jan. 1st, 1902

The College of Preceptors, the Royal Colleges of Physicians and Surgeons in Ireland, and the Educational Institute of Scotland have submitted proposals for new examinations intended to meet the increased requirements of the Council. The details of these examinations are still under the consideration of the committee It is recognised that a genuine effort is being made to bring them up to the required standard, but as fuller information on certain points is still desired, and as it is important that the three non-university examinations should be dealt with together and as nearly as may be on uniform principles, the committee have not yet been able to come to a final determination in regard to them. The committee hope that during the summer they may, by means of further conference and communication, arrive at a satisfactory arrangement with each of these bodies, whose willingness to coöperate with them they cordially acknowledge The list of examinations in the United Kingdom which are recognised as meeting the requirements of the Council will be finally adjusted by the committee and submitted at the November session of the Council

A communication has been referred to the committee in which it is urged on behalf of particular Indian students that the entrance or matriculation examinations of certain of the Indian universities should be replaced in the Council's list These examinations the Council in 1893, on the advice of the committee, decided to remove The grounds of the decision were twofold (1) that the examinations in themselves come short of the standard desired by the Council, and (2) that the universities by which they were conducted did not regard them as a sufficient qualification in arts for their own medical students, who were required in addition thereto to pass a higher examination in the same or similar subjects These grounds still exist and the Council's list accordingly in each case includes only the higher or qualifying examination in arts required as a minimum by the university itself. The committee are of opinion that it is not expedient to accept, on the part of Indian university students who take part of their course in this country, a lower standard of general education than that which is enforced by the medical faculties of their own provinces.

Dr. MACALISTER remarked that this report was an interim one and needed no comment. He moved that it be received and entered on the minutes.

Dr. REID seconded and the motion was agreed to.

Dental Education and Examination.

Mr. TOMES, for Mr. BRYANT, who was temporarily in th chair, presented the following report by the Dental Education and Examination Committee :—

An application has been received from the University of Birmingham for the recognition of its degrees in dentistry and has been referred to your committee by the Executive Committee. The University does not grant its degree in dentistry to any candidate who has not at least 12 months previously obtained a licence in dental surgery from some body legally entitled to confer such qualifications; it requires from such additional study and the passing of additional examinations, so that the degree is of the nature of a higher qualification and its recognition by the Council is governed by sub-section 6 of Clause 11 of the Dentists Act.

In this clause the Council is empowered to register or to remove from the Register "any additional diplomas, memberships, degrees, licences or letters held by a person registered therein, which appear to the Council to be granted after examination by any of the medical authorities in respect to higher degree of knowledge than is required to obtain a certificate of fitness under this Act." In addition to the production of his licence in dental surgery the candidate is required to produce evidence that he has attended the same courses and passed the same examinations as are required for the medical and surgical degrees of the university in the following subjects: chemistry and practical chemistry, physics and practical physics, biology, anatomy and practical anatomy, physiology and practical physiology. He is also required to have attended one course of lectures on medicine, one course on surgery, special courses on the surgery and medicine of the mouth, and pathology and bacteriology. Some of these courses will doubtless have been attended by the candidate in his curriculum for the Dental Licence, but the requirements of the Birmingham University are of greater stringency in that in all subjects of the first group he has to do all that is required of the medical student both in attendance and in examinations and in that in those of the second group he has to pass special examinations instituted for this dental degree. The final examination is conducted by the lecturers on the respective subjects in conjunction with an external examiner Without entering into further detail it is clear that the degree of Bachelor of Dental Surgery is intended to be, and in effect will be, a "higher qualification" in the sense of the clause in the Dentists Act referred to above. The degree of Master of Dental Surgery will be granted after not less than 12 months' interval upon the presentation of a thesis to be approved by examiners nominated for that purpose, and will be awarded or withheld according to their report. A technical difficulty exists in making any order at the present moment, inasmuch as, although an examination has been fixed for the latter part of this month, no examination has as yet been held.

An application from Mr B. C. Marriott Watson, a registered dentist in the Colony of Victoria, for registration as a colonial dentist has been referred to your committee by the Executive Committee. In the year 1898 two gentlemen holding qualifications of the Colony of Victoria were admitted to registration, but some questions subsequently arose with regard to the conditions under which their diplomas were conferred, these conditions having undergone several changes during the last few years. In the year 1900 another gentleman was registered in the Colonial List as registered in Victoria, but in this case also there were special circumstances which had to be taken into consideration, and none of these three registrations can be taken as affording any binding precedent.

In 1900 new and revised regulations of the Colony of Victoria were submitted to the General Medical Council and were referred to the Dental Education and Examination Committee and reported upon (Appendix, vol. xxxvii). It having been considered that the amended curriculum then submitted was not the full equivalent of our own the Council resolved (minutes, vol. xxxvii., p. 67): "That the Council is unable to recognise the diploma of the Dental Board of Victoria as entitling its holder to registration in the Dentists' Register of this country." The present application, which is accompanied by testimonials as to character, is for registration of a diploma conferred in 1890 in virtue of the candidate having passed the "Modified Examination" of the Dental Board of Victoria, and having been thereupon registered in Victoria in 1890 This "Modified Examination" your committee believe to have been one, applicable to persons who had been for a certain length of time in practice. Under these circumstances we cannot recommend the Council to order the Registrar to place the name of this gentleman on the Register.

This report was received and entered on the minutes, and, on the motion of Dr. MACALISTER, seconded by Mr. TOMES, it was resolved not to accede to the application of Mr. Marriott Watson for registration as a colonial dentist.

The REGISTRAR read a report from the Executive Committee on the dental business transacted since the last session of the Council who stated :—

The prescribed conditions having been duly fulfilled, the names of the under mentioned persons have been restored to the Dentists' Register, from which they had been erased in conformity with the provisions in Section 12 of the Dentists Act (1878).—David Anthony, Christopher F Badcock, Luther Bidlake, James N. Dunlop, Alfred C. Faulkner, Philip J. Harrington, George N. Lindup, W. Gerard Morgan, Edwin Robertshaw, and Stanley R Wakefield.

The committee has received an application for registration as a foreign dentist from a dentist holding a Brazilian diploma in dentistry granted after examination by the medical faculty of Rio de Janeiro in 1883. The application was not acceded to.

The report was received and entered on the minutes.

Prevention of Personation.

The Council went into committee to further consider a report from the special committee on the subject of prevention of personation.

Mr. HORSLEY mentioned that last session the Council had adopted the committee's first recommendation in the form following:—

> That in all cases where application is made for registration on the Medical or Dental Registers under exceptional circumstances the facts of the case shall be furnished in the form of a statutory declaration

On Recommendation No. 2 it was questioned by Sir CHRISTOPHER NIXON whether the Medical Act required *that the applicant should fill up the form of application in* his own handwriting.

Dr. MACALISTER asked if Recommendation No. 1 had been adopted by the Council.

Mr. HORSLEY replied that his recollection was that it was. Otherwise how could they have got to the second recommendation which now stood for consideration?

Dr. MACALISTER thought they had discussed Recommendation No. 1 and that before they came to a vote upon it the discussion had been adjourned.

Mr. HORSLEY did not agree. How could they have got to No. 2 unless they had passed No. 1?

Mr. BRYANT: There is no record of our having passed No. 1 and I rule that we begin again.

Mr. HORSLEY: Then I move the adoption of No. 1.

Mr. BROWN: If we go on to discuss this report would it not be better to have the recommendations entered on the minutes?

Mr. HORSLEY: They are already on the minutes.

Mr BRYANT: Go on, Mr. Horsley.

Mr. HORSLEY: My recollection is that Recommendation No 1 was discussed and agreed to by the Council and therefore I now simply move its adoption.

Dr. BRUCE seconded.

Dr. NORMAN MOORE thought that the Recommendation was going quite beyond the common usage of the universities and other licensing bodies who had to deal with such matters. It was quite uncommon for a fraud to be committed and he thought it was hardly desirable that they should introduce such a tone into their proceedings.

Mr. TOMES: The answer to that is that there have been cases of fraud.

After further conversation and reference to last session's minutes it was discovered that Recommendation No 1 had not only passed through committee but subsequently had been reported to the Council and then actually adopted.

Mr. HORSLEY thereupon proposed the adoption of Recommendation No. 2 which was in the following terms:—

> [illegible] all [illegible] up [illegible] ation [illegible] dec [illegible]

Dr. MACALISTER questioned whether it was within the powers of the Council to pass such a proposal as the Act of 1858 provided for the registration of persons *en bloc*, and any individual whose name had been sent up to the registrar by one of the licensing bodies might come and claim registration because of that alone. If any person did so he did not see how the Council or Registrar could resist.

Mr. HORSLEY pointed out that under Section 14 of the Act of 1858 the General Medical Council was authorised to make s[illegible] is section [illegible]

Dr. M[illegible] o make any by-laws it chooses unless they are contrary to the Act of Parliament.

Mr. TOMES regarded the recommendation as one that was not without importance, for there had been an actual case of personation which had come to light simply through investigation of the handwriting on the application form.

On the suggestion of Dr. NORMAN MOORE, Mr. HORSLEY put the recommendation into this form:—

> With the view to identification of applicants for registration on the Students' Register the form of application shall be filled up in the handwriting of the applicants.

The committee adopted this, and on the Council resuming Dr. MACALISTER reported their action.

For the remainder of the sitting the Council sat *in camerâ* considering Mr. FRERE'S report on the finances of the Council.

SATURDAY, JUNE 8TH.

The Council resumed to-day, Sir WILLIAM TURNER, the President, being in the chair.

The Finances of the Council.

In the minutes of the previous day's sitting with regard to the proceedings *in camerâ* an amendment was made to make it clear that the Council considered the report of the Special Finance Committee as well as Mr. Frere's report.

Mr. HORSLEY, after the minutes had been approved, moved that the representatives of the press be permitted to refer to the shorthand notes of the proceedings *in camerâ.* He thought that the Council went into *camerâ* under a misapprehension of the facts, for the Council simply reopened the discussion of last year on the report of the Special Finance Committee, a discussion which took place then in public. They were therefore in the curious position of having done one-half of their discussion on this subject in public and the other half in private. He of course had objected to their going into *camerâ* on the general ground that they were dealing with the expenditure of public money; a majority of one thought otherwise and therefore they went into *camerâ* Now he wished to suggest that nothing arose *in camerâ* that ought not to be published, and inasmuch as they had placed Mr. Frere's report upon their public minutes it seemed to him rather ridiculous and anomalous not to have an account of the discussion. He thought, therefore, that the representatives of the press should have access to the notes of the shorthand writer who was present

Dr. ATTHILL seconded the motion, saying that when he voted against the proceedings being public he did so under a misapprehension He thought that they were going into details, whereas the discussion was one which ought to have been public

The PRESIDENT asked Mr. Horsley how he proposed to give effect to his motion.

Mr. HORSLEY said that the shorthand notes would be transcribed and the transcript would be a document of the Council and he proposed that the representatives of the press should have access to it

The PRESIDENT: That is quite a new procedure.

Mr. HORSLEY I am quite aware of that and that is the reason why I brought it forward in this way.

Dr. GLOVER said that he sympathised with Mr. Horsley and thought they should go further than he proposed and publish the report like any other document of the Council.

Dr. MACALISTER thought that the proposal was not quite fair to those members who spoke while they were *in camerâ* and knew that they were speaking *in camerâ;* it was going behind their backs, in a sense. If members had known that the report of their remarks was going to be published they might very well have taken different lines. He did not think that without notice and after the fact anything of this kind should be done.

Dr BRUCE said that he thought this motion would set a bad precedent. He had no doubt that some of them did speak well knowing that they were speaking *in camerâ.*

Dr. PYE SMITH said that he did not vote for going into *camerâ* under any misapprehension. He took no part in the discussion and therefore it was indifferent to him in that sense whether or not the report was published, but in his opinion it would be wrong to publish the report.

Mr. HORSLEY said that he should like to reply to Dr. MacAlister's observation that something was being done behind somebody's back. He could not conceive anything being more open than his motion.

On a vote being taken nine voted for the motion and 16 against it, five members declining to vote and one member being absent.

The motion was accordingly rejected.

The Case of Dr Henry Ward Irvine.

The Council then took up the adjourned consideration of the case of Dr. Henry Ward Irvine, against whom on Nov. 29th, 1900, the following charge was found proved, viz:—

> That he accepted the office of consulting physician to the Consultative Medical and Surgical [illegible] tised in [illegible] widely circulated, setting [illegible] qualifications, and referring [illegible] ing practitioner, and solicit [illegible] at a reduced fee.

Dr Irvine attended, together with Dr. Hugh Woods, secretary of the London and Counties Medical Protection

Society, while the complainant in the case was represented by Dr. Bateman of the Medical Defence Union.

Mr. WINTERBOTHAM, solicitor to the Council, read the terms of the charge and stated that on Nov. 29th, 1900, at the conclusion of the deliberation of the Council on the case, the President informed Dr. Irvine that the charge which he had been required to answer had been proved to the satisfaction of the Council; that the further consideration of the charge proved against him had been adjourned until the May session; that the Council regarded the conduct complained of as being of a serious character; and that in adjourning the case it gave him an opportunity to reconsider his position.

Dr. IRVINE, addressing the Council, said that he would like to refer to a letter addressed to the Registrar of the Council by his solicitors two days after the inquiry of the Council. The letter was in these terms, viz. :—

1st December, 1900.

DEAR SIR,—We need hardly say that the decision at which your Council arrived on the 29th November was entirely unexpected by us and our client, and that the generality of their direction—viz., that he should reconsider his position before the next session of your Council in May next—places him in a position of serious difficulty. We have to-day discussed the matter with him with a view of carrying out the Council's direction. In so doing we have carefully considered the charge which the Council has held to have been established and (recalled, so far as we are able, the points which (from the questions asked) appear to have influenced the minds of the members of the Council; and we will proceed to deal with them in the following paragraphs. 1. It was suggested that the pamphlets which have been sent out (certainly without Dr. Irvine's approval) contained observations reflecting on the general practitioner and magnifying Dr. Irvine's skill and abilities. While admitting as he did that some paragraphs would bear such construction, he desires again to emphasise that he was not in any sense responsible for the circulation, much less for the preparation, of the pamphlets and at his request the Institution will not issue any more of these pamphlets and will so far as possible withdraw those already issued. 2. As to the circulation of the posters, we infer from certain questions asked that although these posters were honestly intended to be mere announcements of the inauguration of the new movement, their retention even by members of the Hospital Saturday Fund may be thought to be continued advertisement. In order to meet this objection the Institution have, again at Dr. Irvine's request, agreed to withdraw all those posters. 3 Criticism was directed to the title by which Dr. Irvine is described by the Institution in the above-mentioned pamphlets and posters. As, however, the Institution has agreed to withdraw these this objection is now removed. 4. We do not recollect that any objection was raised to the terms of the Institution's first report, but we are authorised to say that no further copies will be circulated. We think we have now (so far as the material at our disposal enables us) dealt with the points raised at the hearing but (confirming the evidence of Mr. Chamberlain) we are authorised by Dr. Irvine and the representatives of the Institution to say that he and they will carefully consider any suggestions which your Council may desire to make in relation to the duties discharged by their medical man. We write without delay, as we understand your Council remains in session only until Wednesday next and will not meet again until May.

Yours faithfully,
PINSENT AND COY.

The reply of the Council's solicitor to this letter was that the Council could not reopen the matter at that session; that the matter must stand adjourned. However, the committee of the Institution at once proceeded to carry into effect the offer made in the letter by sending round a man to all the firms which had received copies of these announcements, in order to collect all copies then existing. He might say that he was personally satisfied that the committee had carried out their promise in the most thorough and painstaking fashion. They sent round a second man in order to see that none of the announcements had been missed by the first man. In further considering his position he took the advice of the London and Counties Medical Protection Society, and he announced his resignation of his appointment in Birmingham to the Registrar of the Council in an informal way on March 4th and again during the month of April.

Dr. BATEMAN said that he had one or two questions which he should like to address to Dr. Irvine. He should like to ask him whether he would be surprised to learn that two of the pamphlets put in in evidence against him were still being issued by the Birmingham Hospital Saturday Fund.

Dr. IRVINE replied that he should be very much surprised.

Dr. BATEMAN asked whether he would be surprised to hear that his name-plate was still on the door of the Institution.

Dr. IRVINE said that he had ascertained that this was the case and had telegraphed to have the name-plate removed.

Dr. BATEMAN asked Dr. Irvine when he resigned the appointment.

Dr. IRVINE replied that it was on Feb. 21st. In answer to the President Dr. Irvine said that he no longer lived in Birmingham.

Sir WILLIAM GAIRDNER: Am I to understand that Dr. Irvine quite understood all the time that the gravamen of the charge was the objectionable advertisements and not the reduced fee?

Dr. IRVINE: I am glad to hear that that was the gravamen of the charge; that was my impression.

Dr. HUGH WOODS went into the witness-box and explained what had passed between Dr. Irvine and the London and Counties Medical Protection Society. Generally speaking, he said that Dr. Irvine had accepted the advice of the society and that advice had been to respect the wishes of the Council. Among other things the society advised him to sever his connexion with the Birmingham Institution. The society did not know whether the Council would consider it an offence to accept a salary from such an institution, but they understood the ground of objection chiefly to be the advertising. Dr. Irvine had severed his connexion with the Institution, had left Birmingham, and short of committing suicide he did not know anything more that he could have done than he had done. There was a quite definite intimation of intention to withdraw from the appointment on March 4th.

Dr. BATEMAN said that he only brought up the questions about the name-plate and the pamphlets so as to give Dr. Irvine an opportunity of repudiating what had been done.

The Council deliberated in private, after which the PRESIDENT announced to Dr. Irvine that they had resolved to proceed no further in regard to the charge.

Dr. IRVINE thanked the Council for their decision and the care with which they had gone into the case.

The Council and the English Royal Colleges.

The Council then proceeded to the consideration of the communications from the Royal College of Physicians of London and the Royal College of Surgeons of England with regard to the registration of medical students. In these communications the Royal Colleges announced that they could no longer require a registration of students by the Council as a condition of admission to examination for their diplomas, and presented certain of their regulations.

Dr. MCVAIL thanked Dr. Norman Moore for having furnished to members of the Council copies of the complete regulations of the Conjoint Board of the Royal Colleges. These regulations he proceeded to criticise. He said that they left the student free to go to schools some of which had not even been visited by representatives of the Royal Colleges. He objected to many of the institutions at which study was permitted.

Dr. NORMAN MOORE: Name.

Dr. MCVAIL: The list is as long as my arm, but to a large extent they are ordinary board schools.

Dr. NORMAN MOORE: General assertions of this kind ought not to be allowed and I call upon Dr. McVail to mention specific schools.

The PRESIDENT: I am given to understand that a committee of the Conjoint Board has revised the list of schools that was submitted to this Council about a year ago and that the list has been greatly diminished. So I am told, but I have not seen the new list.

Mr. HORSLEY: Might we have a copy of that list?

Dr. MCVAIL said that the indignation of Dr. Norman Moore was extremely interesting when they remembered that at the last meeting at which this subject was discussed the representatives of the Conjoint Board admitted that a number of the schools on the list had not been inspected at all.

Mr. BRYANT said that they admitted that a few of them had not been inspected and the number was diminishing.

Dr. NORMAN MOORE said that when these schools first came to be recognised they were not recognised as a part of medical study at all. At the time it was thought that the careful inspection which was carried out by the Science and Art Department at South Kensington was sufficient. After the inquiry into the South Kensington system the Royal Colleges proceeded to visit the schools for themselves. They took enormous pains and it was impossible to visit all the schools at once. They proceeded upon certain definite principles and to suggest that the Royal Colleges had been careless or neglectful was entirely unjust.

Dr. MCVAIL said that in the University Court of Glasgow, of which he was a member, they did not recognise a list wholesale and say that at their leisure they would make inquiries. The teachers and lecturers were all inquired about before they were recognised.

Dr. NORMAN MOORE said that that was exactly the case with the Royal Colleges.

Dr. MCVAIL said that he understood that the Royal Colleges first made out a list of recognised schools and inspected them afterwards.

Dr. NORMAN MOORE pointed out that the Royal Colleges first ascertained that the school had been recognised by the authorities at South Kensington. They accepted that recognition as, he maintained, they were justified in doing in the first instance.

The PRESIDENT asked Dr. McVail whether he intended to make a motion.

Dr. MCVAIL replied that he would move:—

> That the communications from the Royal College of Physicians of London and the Royal College of Surgeons of England, in so far as these relate to the courses of study accepted by them in the subjects of their first professional examinations, do not afford evidence that these courses of study are in all cases sufficient

He did not know yet, he said, whether the Conjoint Board had actually inspected every one of the schools or colleges other than recognised medical schools from which they received certificates of attendance. Unquestionably they had not done so six months ago. In Scotland they did not recognise any institution until it had been inspected and everything about it considered. He put his motion because the Royal Colleges laid down no definite instructions as to the length of the curriculum and because they accepted teaching from certain institutions about which this Council had no knowledge as to whether they were suitably equipped for the teaching.

Dr HERON WATSON seconded the motion.

Mr. HORSLEY asked if the representatives of the Royal Colleges would furnish the Council with a genuine list of the institutions which they recognised.

Dr. NORMAN MOORE said that he would furnish nothing in reply to any request so phrased. The word "genuine" was not to be used in this connexion. The Royal Colleges furnished every information asked for. Subjects of this kind were under constant consideration and discussion and every document furnished to the Council was genuine. He supposed that what Mr. Horsley meant was the latest list—the list up to the last date on which the subject was discussed.

The PRESIDENT: Then I understand that since the list was given in six months ago there has been reconsideration of it, and consequently the institutions named in that list are not quite the same as they were six or 12 months ago?

Dr. NORMAN MOORE: That is so.

Mr. HORSLEY: Might I ask for the date of that list.

The REGISTRAR: January 31st

Mr. HORSLEY: Might I ask for a copy of that list. It might help us

Dr. NORMAN MOORE: If I had supposed that this particular subject was to come before the Council I should have seen that a copy of the list was given to every member. I thought that the subject would not be before the Council. Is it really before us

Dr. MCVAIL: It is included.

The PRESIDENT: I hold that Dr. McVail is quite in order in raising this matter. The subject of whether the amended regulations of the Conjoint Board of England will secure a satisfactory education for persons desirous of entering the medical profession cannot be inquired into without reference to the Royal Colleges.

Sir WILLIAM GAIRDNER: We should have had ample notice of the discussion taking this particular form.

Dr. GLOVER: This is an immense extension of the subject that we thought we were going to discuss. If you are going into the efficiency of the Colleges, into their ability to give scientific education, you ought to give them notice.

The PRESIDENT: You are questioning my ruling Dr. Glover. I must say that looking at this matter without prejudice and simply as a man of business sitting in this chair I hold that the discussion raised legitimately emerges from the submission by the Colleges of their new regulations.

Mr. YOUNG questioned whether the Council was not losing sight of the most important matter that underlay the present proceedings His view was that the Council should discuss the matter as far as possible without reference to the Royal Colleges. The point which seemed to him to be fundamental, and more important than the question as to the satisfactory or unsatisfactory nature of a school wherever it might be situated, was the extremely far-reaching consideration which the new regulations brought forward The distinction between the new regulations and the old might briefly be summarised in this way—a student may attend instruction without being registered by the General Medical Council, although he may have passed the preliminary examination. That was why he said the regulations were far reaching The claim substantially was that the licensing bodies should have power to do what they chose There was a list of institutions reorganised by the Royal Colleges before the Council, but there was no guarantee that that list might not be added to. If so what became of the work of the General Medical Council in endeavouring and determining to raise the standard of education? It was really so much waste of time on their part. Before entering into details of the scheme suggested by the new regulations the Council should say whether the medical licensing bodies in future were to have the power to determine what scholastic institutions were and were not to be recognised as places in which suitable instruction could be obtained.

Dr. PETTIGREW said that the question before the Council was one of the most important that had come before them for many years. The Council had done the best they could to gradually raise the status of medical education and the English Royal Colleges had been parties to all the several steps which had been taken In their new regulations, however, they were introducing a disintegrating factor which, if agreed to, must produce a serious cleavage in every department of medical education These new regulations would virtually establish a four years' curriculum in place of the five years required by the Council. He hoped that the Royal Colleges would reconsider their position in regard to this matter.

Sir JOHN BATTY TUKE was of opinion that the action of the two Colleges simply meant reversion to the four years' course and if they were successful in attaining their object their action would be followed by a large number of the other licensing bodies It was an open secret that the Irish licensing bodies wanted to reduce the course to four years He had heard it stated so, and so far as the action of the Royal Colleges went it seemed that it was extremely probable and almost justifiable He might say that if the action of the Colleges was acceded to by the Council, or persisted in against the wish of the Council, the great universities would follow the example set by these Colleges. That seemed to be an inevitable result and the Council on the present occasion should confine themselves to that point rather than to the details of examinations. If it was proposed that the Council should take the extreme step of representing to the Privy Council that the examinations of the English Royal Colleges were not sufficient he thought they would mean business, but mere talk was of no good.

Dr LOMBE ATTHILL said that the Irish representatives looked upon the step proposed to be taken by the English Royal Colleges with great regret and if it were gone on with he was not sure what the result would be. He was, however, directed to say in the meantime that if the English Colleges did not abide by the recommendations and requirements of the General Medical Council the Royal College of Physicians of Ireland, which he represented, must take such steps as after due consideration they thought to be necessary.

Mr. BALL said that the Royal College of Surgeons in Ireland, which he represented, had come to no decision in the event of the General Medical Council taking steps to report to the Privy Council inadequacy of the examination of the English Colleges. He was strongly of opinion that the matter should be arranged definitely soon. His College had been in expectancy for the last 18 months and because of the absence of a decision on the part of the General Medical Council on this question they did not know in what direction to formulate plans.

Dr. NORMAN MOORE defended the action and position of the Royal Colleges. He thought that in this discussion they were unnecessarily raising too many side issues What was the difference which had caused the dispute between the General Medical Council and the Royal Colleges? There undoubtedly was a difference, but what was it? The Royal Colleges had all along supported the demand for the registration of students, and in former years had supported the General Medical Council in their resolutions to enforce it. The Royal Colleges had no desire whatever to disturb that arrangement. They wished to support the Council, but so far as instruction in chemistry, physics, and biology was concerned they claimed that they should have power to say at what institutions these subjects might be taught to possible or probable members of theirs. The Colleges insisted that they were entitled to lay down regulations of their own to secure that. The General Medical Council desired to raise the standard of education, so as to ensure that men or women entering the medical profession should have as thorough an education as it was possible to give or to obtain. That was exactly the object of the Royal Colleges. He, of course, was speaking for the Royal College of Physicians only, but he must say this, that he had never heard any opinion expressed or any suggestion made in respect to the Royal College of Surgeons which would disjoin that College from the College of Physicians in this special matter. Both were equally concerned with the improvement of medical education, with the maintenance of its standard. Any idea as to whether the lowering of the standard would add to the income of the Colleges or enhance their status had nothing whatever to do with the matter. When there was the same object in view why should there be this dispute? The Colleges contended that possible members of theirs might acquire instruction in chemistry, physics, and biology at places other than those on the list of the General Medical Council. They tried to find out what these places were, and they took into consideration the fact that there had been progress in the conduct and the teaching in public schools. For instance, far more science was now taught at Eton and Winchester than was taught in these schools some years ago. That surely ought to be taken notice of, for it had the most direct relation to the medical profession. The Royal Colleges, thinking so, were of the opinion that instruction in the three subjects in question might now be obtained at institutions other than universities or medical schools recognised by the Council. Instruction in these subjects must be obtained after passing the preliminary examination, and as that could not be taken until the student was 16 years of age there was no fear of any flooding of the profession with immature men. The Colleges had to consider the relation of the scientific education of the present day to their curriculum, and they had to ask: How was scientific education carried on in the medical schools and was scientific education always carried on in the most judicious circumstances? In certain institutions scientific education was undoubtedly not carried on in the magnificent way in which it was at Cambridge, but that was hardly a reason why it should be excluded from institutions that as closely as possible followed the University course. He certainly should like to see all candidates for the medical profession going to the universities, but really were there not in London schools that would give as good tuition in the three subjects in question? The answer to that question was that there were a good many, all of which had been examined and carefully inspected by the Royal Colleges. It was only fair that the list of these should be given to the Council, so that each individual institution should, if necessary, be criticised. The Royal Colleges did not include in their list what were called adventure schools. They laid down the rule that any school which they recognised as an institution in which scientific instruction might be given must be a public foundation. That was to say, it was in no sense to be a private institution; it must have a public governing body. They, moreover, insisted that its equipment should be satisfactory, and that included this provision—that there should be separate teachers for each of the three subjects of practical chemistry, physics, and biology. They refused to recognise an institution in which the same teacher taught both chemistry and physics. Such facts as these showed that the Colleges had taken great pains to ascertain whether there were in the schools included in their list the means of carrying on scientific education of the kind required by the Council, and they thought that they were doing a great public duty in thus encouraging scientific institutions. After referring to the Harris Institution in Preston and the Higher Grade Board School of Norwich—places which, he said, he had personally visited and approved of as places in which the education required by the Council for medical candidates could be obtained, he insisted that the Royal Colleges were doing a public duty in recognising the scientific teaching given in higher grade board schools. It was not sufficient for any member of Council to say that he objected to higher grade board schools. If there was to be objection at all it must take this form: "I object to the higher grade school at such and such a place." The R Colleges, he thought, wished for criticism. It was the duty the General Medical Council to criticise them as well as all the other licensing bodies. That was the way by which progress was secured. But where comments were made the criticism should be fair and just and should show that the Colleges wished to advance and to encourage education. The Colleges printed a list of institutions which should be recognised by them for the purpose of scientific education. So the whole difference between them and the General Medical Council was this: "What should these institutions be?" The Colleges were distinctly of opinion that they should be those which should most efficiently advance education. Both the Colleges and the Council had tried to find out these institutions. Why should they differ? The Colleges were of opinion that the Council went outside its functions when it dictated to the Colleges on such a detail as this. That was the opinion of the Colleges. These Colleges were assured that it was their duty to ascertain that the teaching, the place of teaching, the appliances for teaching, and everything which led to candidates becoming members of the Colleges, were sound and thorough. They should listen to no particular criticism on that. As a matter of fact they were willing even to retire from the Council's registration of students rather than give away the rights and responsibilities which by charter and Acts of Parliament had been entrusted to them. The General Medical Council he believed, had taken a false step in this matter. It had, he believed, misunderstood the action and position of the Colleges. There had been a suggestion that the Colleges did not wish to carry out the five years' curriculum. That was a mistake. The Colleges had carried out in the most loyal way the five years' curriculum ever since it was instituted in 1892. Never since that year had students been admitted to their roll without having gone through a five years' medical course after passing the preliminary examination in arts. This regulation, as a fact, had been enforced in the most thorough, straightforward, and rigid way. Therefore he hoped that the dispute would be settled amicably. It was of great importance to medical education that it should be. It was of great importance that the existing system of registration should be kept up, but he thought that it should be broken up rather than that the responsibilities of the individual bodies should be taken away. There was no feeling of defiance or anything of the kind on the part of the Royal Colleges to the Council. These Colleges wished to support the Council in every way. They felt that its work had been useful and that the difference between them was very slight, but at the same time they wished their own list of institutions to be accepted.

Sir CHRISTOPHER NIXON, speaking as the President of the College of Physicians of Ireland and representative of the Royal University of Ireland, thought that if the question of raising and maintaining the standard of education was properly put to the two English Royal Colleges there would be no difficulty in securing assent from them, because, as their representative had said, he believed that they had simply in view the General Medical Council's desire to raise the standard of education as respects candidates for the medical profession. He distinctly disagreed with anything that would mean a return to a four years' curriculum, and he insisted that the five years which the Council recommended and required should be rigidly adhered to.

The Council adjourned, leaving the debate unfinished.

MONDAY, JUNE 10TH.

The Council met again to-day, with Sir WILLIAM TURNER in the chair.

The Council and the English Royal Colleges.

The Council resumed the consideration of the communications from the Royal College of Physicians of London and the Royal College of Surgeons of England and the debate on Dr. McVail's motion:—

> That the communications from the Royal College of Physicians of London and the Royal College of Surgeons of England, in so far as these relate to the courses of study accepted by them in the subjects of their first professional examinations, do not afford evidence that these courses of study are in all cases sufficient.

Dr. MACALISTER said that there were one or two omissions in the very able and courteous speech of Dr. Norman Moore to which he desired to call attention. One of them was that the Council had laid down after much consideration the principle that a student who proposed to be called a medical student and to be registered as such should have finished his ordinary school education before his five years of medical study should have begun, and the point at issue was really this, Should they admit to the five years' curriculum students who had not finished their ordinary school education? However well equipped these schools might be for the school teaching of chemistry, physics, and biology, should they allow a student as his first year of medical study to spend a year partly in the study of these subjects and partly in the study of school subjects? Should they admit medical half-timers for the first year of medical study? The Council had pretty clearly indicated its desire that such a state of things should not be recognised. He would go further and point out that by recognising some of the institutions which had been proposed for recognition they should do something more pointedly to diminish the true value of the first year of medical study because they should admit institutions which gave instruction in these subjects at evening classes. If they did that there was nothing to prevent a student who desired to be called a medical student to put in his day and the freshness of it in the pursuit of some ordinary trade or profession and give his evening to what he would call the first year of his medical curriculum. He believed that in the old days, in Dublin at least, there was a group of students of this kind. These were not favourably regarded by the medical profession or the medical teaching bodies in Dublin and steps were taken to put the class to an end. Although interesting, it appeared to him to be more or less irrelevant to consider how good these institutions were. They might be very well equipped, indeed, for the purpose of giving boys a liberal education which should include science, but that was not the question. Were the conditions such as to require the serious study during the first year exclusively of the three subjects for which the institutions claimed credit? If that were not the case, however well the institutions might be equipped for other students, they were not fit for complete recognition as places for the first year of medical study. The other point omitted by Dr. Norman Moore to which he desired to call attention had reference to the preliminary examination in general education. It would be observed that under the new regulations of the English Colleges a recognised examination in preliminary education was to be one recognised by the Colleges and it was added that a list would be supplied on application. There was nothing about an examination on the list sanctioned by the Council. The Council knew that by slow steps and with great difficulty they had gradually been able, by the elimination of unsuitable examinations and by the raising of the standard of others, to bring up the condition of preliminary education to its present state, and all of them desired to see it raised still higher. But unless there was some central authority like the Council to see that these examinations were gradually raised it would be perfectly impossible for them to maintain the standard of liberal education which had always been the goal of the Council. If the English Colleges were to make a list of recognised preliminary examinations in arts it was of course equally open to every other body to claim the same right and insist upon it—a state of things which he could not regard as desirable. In his opinion the action of the English Colleges was fraught with great danger to the whole course of medical study and curriculum.

Mr. HORSLEY said there seemed to be an idea that this was a mere academic discussion with no practical interest for the bulk of the medical profession. That was a great mistake. Again and again the profession had expressed itself in the direction that the preliminary examination in arts must be raised to a level above that to which the General Medical Council had with [illegible] of the English Colleges there was hinged, although unwittingly, disloyalty to the principles of the Medical Act of 1886. If by the Act of 1886 there was a kind of consensus of opinion among the licensing bodies that they would, as it were, agree together for the conditions under which a student should pass immediately into the profession from his qualifying examination, surely there was also carried with that a consensus of opinion that the Council should represent the licensing bodies in the construction and regulation of the preliminary parts of the examination. He knew there were people who said that the Act did not give the Council a *locus standi* in dealing with these subjects. That was a matter for argument and he would not now enter into it, but certainly there was a feeling in 1886 that the licensing bodies, though possessing privileges by legal right, should nevertheless agree to sink the exercise of these privileges in order that they should all move together in the progress of medical education. Now this was an instance of the kind. No one denied the legal right of the English Colleges to do what they proposed. He was quite aware that the Council had been advised that there were points on which legal action could be taken if necessary, but he earnestly hoped that no such legal action would ever be taken in this matter, but, taking it simply from the point of view of ordinary fairness of agreement and coöperation, he did think that the English Colleges made a fatal mistake in medical education when they came forward and put into operation the rights which they appeared to possess but which other licensing bodies possessed and which other licensing bodies could have put into force if they had thought fit. Look at the consequences of their departure. The Council had gradually built up a system of registration of students. The Council realised the value of that registration and he did not suppose there was a teacher in any medical school who did not fully appreciate the value of that registration, and yet by an unfortunate accident that registration was made to suffer for this specific action on the part of the English Colleges. He had no doubt that these Colleges would have been very glad, as they took their share in the formation of the Students' Register, to avoid injuring such an important factor in the students' career, but the course that they decided to take had had this fatal effect. He was therefore really horrified to hear Dr. Norman Moore say that, weighing the one thing with the other, his College was quite prepared to ruin students' registration rather than forego the responsibilities of which he spoke. If the other licensing bodies did not think that their status and welfare were injured by foregoing their responsibilities he did not see why the Royal Colleges should have taken up this attitude. In his opinion they had done a great injury to medical education, and in spite of the eloquence of Dr. Norman Moore he thought that would be the way in which the medical profession would regard their action.

Dr. LITTLE asked from Dr. Norman Moore some information about the kind of chemistry taught in the institutions which it was proposed to recognise.

Dr. NORMAN MOORE said that the teaching of chemistry had always been a difficulty in connexion with medical education. One was constantly hearing complaints from the deans of schools upon the subject. In the institutions referred to he had no reason to believe that chemistry was taught in any different way from, say, his own school, St. Bartholomew's.

Dr. WINDLE pointed out that there were about 60 cities and towns in the list at present recognised by the English Colleges but no doubt with the advance of scientific teaching in schools the list would be enormously extended and it could not be very long before in every important town there would be a school coming up to the standard of those in the present list. That meant that there practically would be for the great majority of students presenting themselves for these diplomas a four years' course in a medical school and for all other students a five years' course in a medical school. Therefore, he considered this a death-blow to the idea which some of them cherished of a fifth year given up to clinical work. Last session Sir Dyce Duckworth relied on the test of examination, but examination should only be an incident in the career of a student, the essential thing being the carrying out of the curriculum. The kind of unity desiderated by Dr Norman Moore was rather a singular one. It was a unity in which the lion lay down with the lamb, but the lamb, if he might so designate the Council, was inside the lion. The Council was to agree with the Royal Colleges and then, and only then, all would be peace.

The PRESIDENT asked Dr. McVail whether he intended if his motion were carried to represent the matter to the Privy Council.

Dr. MCVAIL replied that if the motion were carried, as he hoped it would be, he would be perfectly content to leave the matter there until next session. The Royal Colleges and the other bodies would thus have an opportunity of understanding the position of the Council in the matter.

as to the height of the Sheik, but polydactylism nowadays is generally associated with dwarfism. Certain passages in this report betray some *odium theologicum* which is out of place in literature dealing with scientific matters and would be better eliminated.

Parliamentary Intelligence.

HOUSE OF COMMONS.

THURSDAY, JUNE 6TH.

The Post Office and Medical Provision.

CAPTAIN NORTON asked the Secretary to the Treasury, as representing the Postmaster-General, whether he was aware that an accident happened at Mount Pleasant sorting office on May 6th to a sorter causing him to faint; that in the absence of an attendant medical officer and of an ambulance this man had to be taken in a mail van to the Royal Free Hospital, Gray's Inn-road, nearly half an hour elapsing before he was attended to; and whether the Postmaster-General, in view of this and other accidents, and seeing that over 2000 men were employed at this office, would accede to the requests of the staff for a resident medical officer and give instructions for an ambulance to be kept on the premises.—Mr. AUSTEN CHAMBERLAIN said that the accident in question, which was due to a door swinging against the man's face, was not a serious one, and there was no record that the man fainted. It was reported to have happened at 8 2 P M., and as a cab could not be found at the minute the man was conveyed in a mail van to the Royal Free Hospital, where he arrived at 8 15 P.M. His wound was dressed and he started home in a cab at 8 30 P M. It did not appear, therefore, that any time was lost. It was not considered necessary to have a resident medical officer at Mount Pleasant; but the question of providing an ambulance litter (which, however, would hardly have been used on the occasion in question) was under consideration.

Coroners' Inquests (Railway Fatalities) Bill.

The order for the second reading of this Bill was discharged and the Bill was withdrawn.

FRIDAY, JUNE 7TH.

The Proposed Standard for Butter.

Mr HANBURY, President of the Board of Agriculture, in reply to a question on this subject, said that his department have already collected a considerable body of evidence to submit to the proposed committee upon a butter standard and he hoped to nominate the committee very shortly—at any rate, during the present month.

MONDAY, JUNE 10TH.

The London Water Question.

Mr. FORDE RIDLEY asked the President of the Local Government Board whether, in the event of the purchase of the London water companies under his proposed Bill, he would take steps to prevent the continuance of the system under which an increased rent for the use of water was charged on those houses where the rates had been increased under the quinquennial re-assessments although no increased supply or any alteration whatever in the supply might have taken place.—Mr. WALTER LONG replied that he was afraid he could not give any undertaking at the present time with regard to the subject of his hon. friend's question.

TUESDAY, JUNE 11TH.

Death Certification.

Sir JOHN KENNAWAY asked the President of the Local Government Board (1) if his attention had been directed to the report of the coroner's inquest, held at Birmingham on June 3rd on the bodies of 31 infants found in a cellar at the house of Mrs Knowles, and (2) seeing that a Select Committee reported in 1894 that the state of the law with respect to the disposal of the bodies of deceased infants and children was unsatisfactory and made recommendations in regard to its amendment, whether he could hold out hopes of introducing early legislation to deal with the abuses shown to exist.—Mr. WALTER LONG replied that the answer to the first paragraph was in the affirmative. The matter reported on by the Select Committee referred to was receiving his careful attention He should be very glad to be able to deal with it, but he was afraid he could not hold out any expectation of legislation on the subject during the present session.

Medical Officers of Health in Scotland.

The LORD ADVOCATE, in reply to Mr. WEIR, said that there are 278 medical men holding appointments as medical officers of health in Scotland. Of these, 61 possess a diploma in sanitary science, public health, or State medicine.

Civil Surgeons at the War.

Mr. SCHWANN asked the Secretary of State for War whether he had now received any answer to his telegram to Lord Kitchener with regard to the possibility of setting free and conveying home the medical officers who volunteered for service in South Africa, many of whom had been out from home much more than a year, exposed to heavy work and risk from contagion and otherwise.—Mr BRODRICK replied: Lord Kitchener has not yet been able to release civil medical officers apart from those whose engagements have terminated. If circumstances admit of it all possible consideration will be shown.

New Factory Legislation.

On the motion for the second reading of the Factory and Workshop Acts Amendment Bill Mr RITCHIE, the Minister in charge of the measure, gave an account of its main provisions. He explained that the existing law in the matter of ventilation applied only to the removal of noxious gases, dust, &c. There were, however, many cases in which workers were crowded in rooms heated by means of gas-jets where the air was never practically changed, and this Bill, while not laying down the particular form of ventilation, required that there should be sufficient ventilation in all such premises. As the Bill prohibited [illegible] employment of children in moving machinery. On the subject of underground Bill defined an underground place as a place where the room was three feet below the surface of the ground. It prohibit rooms being used for this purpose even if they were underground than three feet, but it placed on the local responsibility of seeing that where there were such places they be sanitary and licensed accordingly. The present regulations with dangerous trades were of an unsatisfactory character: might be separate rules for each factory and workshop in industry even where the conditions were exactly similar. One of worst features of the existing law was that the decision was left hands of an arbitrator, who had practically no decision was binding on the Secretary of State. The proposal Bill was that rules should in the first instance be made in draft the Secretary of State and for the entire trade; that all both employers and employed, might make with regard to them; and that the Secretary of State bound to take all objections into consideration, and advised, amend the draft rules accordingly. Before became operative there would be the fullest public inquiry arbitrator. The Secretary of State, however, would not be bound decision, but would form his own judgment; and, finally, the rules would be laid on the table of both Houses of Parliament. would, therefore, be ample public inquiry and the fullest responsibilit of the Secretary of State, as to which he attached the importance. Further, the Bill proposed to bring laundries within scope of the factory and workshop legislation; and with regard to preserving and fish curing, while it exempted these employments w regard to the hours of labour, it brought them under provisions.

Appointments.

Successful applicants for Vacancies, Secretaries of Public and others possessing information suitable for this column, invited to forward it to THE LANCET *Office, directed to Editor, not later than 9 o'clock on the Thursday morning of week, for publication in the next number.*

BERRYMAN, E. N., L.R.C.P. Lond., M.R.C.S. Eng., has been Medical Officer of Health of Llandovery, South Wales.

BOULTON, ARTHUR, L.R.C.P. Lond., M.R.C.S. Eng., D appointed Medical Officer of Health of Woodhall Spa,

BRAWN, H. E., M.R.C.S. Eng., L R.C.P. Lond., has Second Assistant Medical Officer at the

CLAY, T. W., L.R.C P., L.R.C.S. Edin., L.[illegible]P.S. Glasg., has appointed Certifying Surgeon under the Factory Acts for Holyhead District of the County of Anglesey.

DIXON, W J., M.B., C M Madras, M.R.C.S. Eng., L.R.C.P. Lon been appointed Resident Medical Officer at the Nort London Hospital.

DUTTON, E. C, M.B., Ch.B. Vict., has been appointed a Civil (attached) to the forces in South Africa.

EMPSON, JOHN, M D, C.M. Bishop's Univ. Montreal, L.R.C.P. L.R.C.S. Irel, has been appointed Certifying Surgeon under Factory Acts for the Milborne Port District of Somerset.

ELLIOT, NORMAN B., M.D., M.R.C.P. Lond., has been Physician to the National Hospital for Diseases of the Heart.

ELWORTHY, H. S., F R.C.S. Eng., has been appointed Casualty Offi to the Great Northern Central Hospital.

FLETCHER, F. A. C, L.R.C.P., L.R.C.S. Edin., has been Certifying Surgeon under the Factory Acts for the District of the West Riding of Yorkshire.

GRIFFITH, W S, M.B., C.M. Edin., has been appointed to the Charge of Troops stationed at South Hook Fort, Milford South Wales.

HITCHENS, HAROLD JOHN, has been appointed Captain in the Medical Corps, Queensland Defence Force (Land) and Officer in charge of the 5th Queensland Contingent Bushmen) for South Africa.

HULBERT, E. B., M.D Durh., has been appointed Assistant Superintendent at the St. Marylebone Infirmary, vice Dr. resigned.

PRITCHETT, G. W., M R.C.S. Eng., L.R.C.P. Lond., has been Assistant Resident Medical Officer at the North-West Hospital.

TAYLOR, JOHN, M.D. Aberd., has been appointed Certifying under the Factory Acts for the Elgin District.

WARRINGTON, W B, M.D. Lond., M B., Ch.B. Vict., M.R.C.P. L has been appointed Honorary Physician to the David Northern Hospital, Liverpool.

WILLIAMS, EGERTON H., M.R C.S. Eng., L.R.C.P. Lond., D.P.H., M D. Brux., has been appointed Medical Superintendent of City Hospitals, Sheffield, vice Frank S. Hardy, resigned.

Vacancies.

For further information regarding each vacancy reference made to the advertisement (see Index).

BARNWOOD HOUSE HOSPITAL FOR THE INSANE, Gloucester.—J Assistant Medical Officer. Salary £150 (rising to board, &c.

BIRKENHEAD UNION.—Male Assistant Medical Officer. Salary annum, with board, washing, and apartments.

Borough of Bootle.—Medical Officer of Health, &c. Salary £400 per annum.

Bridgnorth and South Shropshire Infirmary.—House Surgeon. Salary £80, with board and lodging

Bridgwater Infirmary.—House Surgeon. Salary £80 per annum, with board and residence.

Brighton, Hove, and Preston Dispensary.—House Surgeon. Salary £160 per annum, with furnished apartments, coals, gas, and washing

Cardiff Infirmary.—Honorary Gynæcologist.

Chelsea Hospital for Women, Fulham-road, S.W.—Registrar. Honorarium of 20 guineas

Cheltenham General Hospital.—Junior House Surgeon, unmarried. Salary £60 per annum, with board, lodging, and washing.

Chester General Infirmary.—House Physician. Salary £80 per annum, with resid[illegible] [illegible] [illegible] [illegible]se Surgeon. Salary £90 per annu[illegible]

Children's Hospital, [illegible] [illegible]ady House Surgeon. Salary [illegible] [illegible] [illegible]lging, and washing.

Clayton Hospital and Wakefield General Dispensary.—Junior House Surgeon, unmarried. Salary £80 per annum, with board, [illegible]

[illegible] Scotland, Bridge of Weir, Renfrew[illegible] [illegible]ficer. Salary £150, with house, board, [illegible]

Cou[illegible] [illegible] [illegible]un[illegible] [illegible]ied [illegible]

Cou[illegible] [illegible]er, [illegible] increasing to [illegible], with board, apartments, and washing.

County Asylum, Whittingham, Lancashire.—Junior Assistant Medical Officer, unmarried. Salary £150, increasing to £250, and on promotion to £300. Furnished apartments, board, washing, and attendance provided.

County Borough of Burton-upon-Trent.—Medical Officer of Health and Public Analyst. Salary at rate of £350 per annum for the Medical Officership and £50 per annum for the office of Public Analyst, and authorised disbursements

Denbighshire Infirmary, Denbigh.—House Surgeon. Salary £100, with board, residence, and washing

Devonshire Hospital, Buxton, Derbyshire.—Assistant House Surgeon. Salary £50 per annum, with furnished apartments, board, and washing

Eccles and Patricroft Hospital, Patricroft.—House Surgeon. Salary £60 per annum, with board, lodging, and washing.

Evelina Hospital for Sick Children, Southwark-bridge-road, S.E. Senior Resident Medical Officer. Salary £70, with board and washing

General Hospital, Birmingham.—House Physician. Salary £70 per annum, with residence, board, and washing.

Great Northern Central Hospital.—Non resident Assistant House Surgeon for six months. Salary at the rate of £30 per annum, with luncheon and dinner. Also Dental Surgeon.

Greenock Infirmary.—Assistant House Surgeon. Salary £40 per annum, with board and residence.

Guy's Hospital.—Lecturer on Biology. Also Demonstrator of Chemistry and Physics and Demonstrator of Chemistry and Toxicology.

Hartlepools Hospital.—House Surgeon. Salary £100 per annum, with board, washing and lodging

Hereford County and City Asylum.—Locum Tenens Assistant Medical Officer for 10 or 12 weeks. Salary £3 3s. per week, with board, lodging, &c., and railway fare.

Hospital for Consumption and Diseases of the Chest, Brompton.—Resident House Physicians for six months, with an honorarium of £25.

Hospital for Sick Children, Great Ormond street, London, W.C.—Clinical Pathologist and Bacteriologist, non-resident, honorarium 50 guineas; also Anæsthetist, honorarium 15 guineas; House Surgeon, unmarried, for six months, salary £20, washing allowance £2 10s., with board and residence; and Medical Registrar, honorarium 50 guineas.

Hull Royal Infirmary.—Junior Assistant House Surgeon. Salary £60, with board and lodging.

Hulme Dispensary, Manchester.—Honorary Physician and also Honorary Surgeon.

Infirmary, Cambridge road, S.E.—First Assistant Medical Officer, single. Salary £150 per annum, with board, lodging, and washing

Infirmary, Fulham road, S.W.—Second Assistant Medical Officer. Salary £70, with board, residence, and washing.

London (Royal Free Hospital) School of Medicine for Women, 8, Hunter-street, Brunswick-square, W.C.—Demonstrator of Chemistry and Physiology

Norfolk and Norwich Hospital.—Assistant House Surgeon for six months. Honorarium £20, with board, lodging, and washing.

Nottingham General Dispensary.—Senior Resident Surgeon. Salary £200 per annum, increasing by £15 every year. Also two Assistant Resident Surgeons. Salaries £160 per annum each, increasing by £10 every year, furnished apartments, attendance, light, and fuel. Unmarried.

Owens College, Manchester.—Senior Demonstrator in Physiology. Stipend £150, rising to £200.

Peterborough Infirmary.—House Surgeon. Salary £80 per annum, with board and residence.

Royal Albert Hospital, Devonport.—Assistant House Surgeon for six months. Salary at rate of £50 per annum, with board, lodging, and washing.

Royal Cornwall Infirmary.—House Surgeon, unmarried. Salary £100, increasing by £10 a year, with board (excluding stimulants) and apartments.

Royal Edinburgh Asylum.—Assistant Medical Officer. Also Clinical Assista[illegible] [illegible]—Assistant Resident Surgeon. [illegible]

[illegible]er. Salary £150 per annum, with furnished apartments and attendance.

Tottenham Hospital, N.—House Surgeon. Salary £50 per annum, with board, residence, and laundry.

University College, Sheffield.—Professorship of Anatomy.

Uni[illegible] [illegible]f [illegible]

We[illegible] [illegible] board, &c.

Western General Dispensary, Marylebone-road.—Senior House Surgeon, unmarried. Salary £100 a year, with board, residence, and washing

Weston-super-Mare Hospital and Dispensary.—Medical Officer. Salary £100 per annum, with board, lodging, and washing.

Worksop Dispensary and Victoria Hospital.—House Surgeon and Dispenser, unmarried. Salary £150 per annum, rooms, and attendance.

York Dispensary.—[illegible] Salary £110 a year, with boa[illegible] [illegible]

The Chief Inspec[illegible] [illegible] Vacancies for Certifying Surgeons under the Factory Acts at Newry, in the County of Down, and at Turvey, in the County of Bedford. Application to be made to the Factory Department, Home Office.

Births, Marriages, and Deaths.

BIRTHS.

Ahrens.—On June 5th, at Worting-road, Basingstoke, the wife of H. A. Ahrens, M.R.C.S., L.R.C.P., of a son.

Barton.—On June 9th, at the Rowans, Lingfield-road, Wimbledon, the wife of P. Frederic Barton, M.A., M.B., B.C., of a son

Bird.—On June 10th, at King-street, Bridgwater, the wife of G. W. Harvey Bird, M.A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P., of a daughter.

Dowden.—On June 6th, at Kingston, Jamaica, the wife of Richard Dowden, M.D., of a daughter.

[illegible] Berkhamsted, Herts, the [illegible] [illegible]S. Irel., of a daughter.

[illegible] [illegible]w Zealand, the wife of [illegible] L.R.C.P. Lond., of a daughter.

Pakes.—On June 9th, the wife of Walter C. C. Pakes, D.P.H., &c., of a son.

MARRIAGES.

Dunn—Rotherford.—On June 6th, at St. Martin's Church, Scarborough, by the Rev. Robert Pemberton, M.A., Robert Ayton Dunn, M.D., to Eleanor Rotherford, daughter of the late John Rotherford

Edwards—Yates.—On June 12th, at the Congregational Church, Yeovil, by the Rev. A. J. Viner of Oldham, Edward Edwards, L.R.C.P., L.R.C.S., &c., of Oldham, to Hannah Lees Ainsworth, daughter of James Yates, M.D., J.P., Pitt Bank, Oldham.

Moss-Blundell—Clark.—On June 5th, at the Presbyterian Church, Cricklewood, by the Rev. J. Monro Gibson, D.D., Cuthbert Blundell Moss Blundell, M.R.C.S., L.R.C.P., of 51, Moffatt-road, Thornton Heath, eldest son of F. B. Moss-Blundell, Esq., of Hampton-on-Thames, to Agnes, third daughter of the late Captain Thomas Clark, of Irvine, N.B., and Mrs. Clark, of 93, [illegible]

[illegible] [illegible]hurch, Upper [illegible] [illegible]art Mounsey, [illegible] [illegible]ht. [illegible] [illegible]shton, by the [illegible] M.R.C.S. Eng., [illegible] [illegible]ws [illegible] [illegible], Cockington, [illegible] Henry Stanley [illegible] J. C. N. Day. [illegible] [illegible]h, Newton-le- [illegible] of the bride- [illegible] of the parish, Harold Ernest, third son of John W. Watkins, M.D., of Newton-le-Willows, to Ellinor Josephine, youngest daughter of the late James Smith, J.P., and of Mrs. Smith, of Brookside, Newton-le-Willows.

DEATHS.

Bland.—On June 4th, at Arranmore, Carew-road, Eastbourne, William Charles Bland, M.R.C.S., L.R.C.P., late of Milton, Portsmouth, aged 53 years.

Bond.—On June 6th, at the Sanctuary, Westminster, Thomas Bond, F.R.C.S., M.B. and B.S. Univ. Lond., aged 69 years.

Booth.—On May 31st, at Wandsworth, Edward Johnson Hardy Booth, M.R.C.S., L.S.A., of Huddersfield, in his 55th year.

Clark.—On June 5th, at North Sydney, N.S.W., Charles Alfred Dagnall Clark, M.B. Lond., aged 45 years

Dunbar.—On June 6th, at North-side, Clapham-common, James Alexander Dunbar, M.D., Inspector-General of Hospitals, Bengal Army, in his 86th year.

Harratt.—On April 5th, at Monte Video, South America, Henry Harratt, of Elmside, Northiam, Sussex, M.R.C.S. Lond., M.R.C.P. Edin.

Melville.—On June 8th, at Knockawn, Portlaw, Alexander G. Melville, M.D., M.R.C.S., late Professor, Queen's College, Galway, aged 82 years.

Robertson.—On May 23rd, at Glanton House, Northumberland, William Robertson, M.D. Edin., in his 80th year.

Warrington.—On the 7th of June, at Bradshaw House, Congleton, Cheshire, Francis William Warrington, M.D., J.P., aged 62 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

A WICKED ADVERTISEMENT.

WE have for long advocated that some check should be placed upon the pernicious advertisements of quacks and of quack medicines as appearing in the daily and weekly press, but, excepting possibly some of the effusions of abortion-mongers, we think that we have never seen a more wicked and disgraceful advertisement than the following which appeared in the *Daily Express* of June 6th. It is headed, "Awful Increase in Heart Disease—Have you the Symptoms?"

* * * * * * * *

Almost one half the people have heart disease. The trouble is they don't know it. .. ... It is no exaggeration to say that thousands of deaths might have been avoided had the victim known about our Heart Tablets. Pain is not the only symptom. Don't drop dead. ...... Sure signs of a diseased heart that cannot be mistaken are palpitation or fluttering, skipping a beat, dark specks in the vision, swelled feet or ankles (a positive sign), desire to sleep after eating, unnaturally cold hands and feet, tenderness, numbness, hungry or weak spells, painful to lay (*sic*) on left side, dropsy, neuralgia round the heart. If you have any of these symptoms don't delay a moment but write us at once. Relief is at hand. Read what others say about Oxien.

We have no hesitation in describing this advertisement as simply wicked, and we are surprised that any British journal can print such lies. The whole set of symptoms, although undoubtedly they can exist in patients suffering from heart disease, are in 999 cases out of 1000 simply due to chronic dyspepsia. When we add that the advertisement is adorned with a picture of a woman staggering away from a telephone through which she has just heard the message, "Your husband just died of heart disease," we have said enough to show that this advertisement practically seeks to get money by wickedly and basely playing upon fears which have no foundation. The advertisement emanates from Maine in the United States so the law cannot touch it, but surely such lies should not be permitted to appear in the press of this country.

HONORARY HOSPITAL APPOINTMENTS.

A SHORT time ago the governors of the Derby Royal Infirmary altered their rules and appointed an elective committee for the purpose of filling up vacancies in the honorary appointments. At an extraordinary meeting of the governors and subscribers of the Royal Albert Edward Infirmary, Wigan, on the 4th inst., the following alterations of rule was passed without dissent:—

Each honorary medical officer shall be elected by an elective committee which shall be appointed at each annual meeting and shall consist of the board of management and five members elected by the subscribers of the Hospital Saturday and Sunday Fund at their annual meeting.

The chairman of the board of management stated that this had received careful consideration at the hands of the board and he moved its adoption, with some alterations in other rules, which also had been considered carefully before submitting them to the subscribers. After the last election of a honorary medical officer the medical board strongly recommended a change in the method of election, and it is satisfactory to find the change readily accepted at the first opportunity by the subscribers. The medical board has four representatives out of six members on the board of management, and the senior honorary medical officer (Mr. Berry) was chairman during the past year and was again re-elected for the ensuing year at the first meeting of the new board appointed at the annual meeting.

ASTHMA AND GOUTY NEPHRITIS.

To the Editors of THE LANCET.

SIRS,—In reply to "General Practitioner's" query in THE LANCET of June 1st, p. 1582, about attacks of asthma coming on in the small hours of the morning in a subject of Bright's disease, I should say that the time of onset strongly suggests flatulent dyspepsia as the cause. I should treat him by light but solid food, restriction of fluids with meals, especially towards the end of the day, and the administration of a mixture of bicarbonate and sulphocarbolate of soda with ammonia, nux vomica, peppermint, and chloroform water at bedtime and on the occurrence of an attack.

I am, Sirs, yours faithfully,

S. L. B. W.

June 10th, 1901.

UNSOUND MEAT—HEAVY AMERCEMENT.

AT the Clerkenwell Police-court on June 10th William Kendall, butcher and sausage-maker, Chapel-street, Finsbury, was amerced in a penalty of £50 and £5 5s. costs for having for sale on his premises 96 pounds of unsound and unwholesome meat and sausages. Mr. Newman, medical officer of health, deposed that he inspected the meat and found it totally unfit to be consumed as human food.

WANTED—A HOME FOR EPILEPTICS.

To the Editors of THE LANCET.

SIRS,—I should deem it a favour if any of your readers could info
me of a home or institution for epileptics. As medical officer of
workhouse I have as patients two girls, about 16 years of age, and as
have neither proper attendants nor facilities for treating such cases
should like to try to get them into some suitable home. I have
doubt that my Board would agree to pay a reasonable sum fo
maintainance.

I am, Sirs, yours faithfully,

BROMI

June 10th, 1901.

WANTED—A HOME FOR THE TREATMENT OF INEBRIET

A MEDICAL MAN writes: "I shall be glad if you can put me into c
munication with the manager of any institute for the treatment
inebriety who would take a young man able to pay only a guinea
25s. a week for the accommodation." Any stamped replies receiv
at THE LANCET Office will be forwarded to the writer.

THE SWALLOWING OF FOREIGN BODIES.

IN the June number of the *Phonographic Record* Dr. James Adam
gives some instances of what he calls "accidental cures"—cases in
which, for instance, a goitre disappeared after a blow or a hernia
was cured by continued jolting. He concludes his paper with an
instance of death resulting from a supposed accident. He says:
"A well-known gentleman in a large Scottish town awoke one
morning with abdominal pain. He missed his false teeth from
his mouth. He was taken to hospital, abdominal section
done, and his teeth were not found." He was
were found under his pillow. He
medical friends, both well known
surprise each of them had had
swallowed false teeth without rem
patient was told to go home and lo
were found after two days' search
been put by a servant, in the other
moral is that when a patient swall
it and does not infer it from
course, applies to other articles
Most medical men who have hac
general hospitals must be familiar
more especially as regards children wh
bone connexion between the ring and
"comforters," immediately infer that it
tions to search for the foreign body at ho
from unnecessary surgical interference.

"THE CASE OF MR. LOUIS FERDINAN

THE following further subscriptions have b

	£	s.	d.	
Dr. Cautley	2	2	0	Mr. H. T
Dr. P. H. Byrne	1	1	0	Lieutena
Mr. G. E. Norton ...	2	2	0	Coates,
Mr. Wm. Rayner ...	5	5	0	Dr. W. S.

THE ANGLO-AMERICAN NURSING H

THE above-mentioned institution was opened i
object is to provide comfortable rooms wit
nurses for the sick, and it also possesses a staff
are sent out to private cases throughout Italy.
hotel anywhere is unpleasant, and, more especia
is apt to lead to various difficulties, while if
infectious nature there is scarcely any place fo
than the public hospital. The Anglo-Ameri
is an attempt to provide British and A
who should fall ill with, so far as is p
attention as that which they would meet with a
tution was opened at a cost of £2300,
remain to be paid, and with a view to liquidating
is to be held at Stratford House, Stratford-place,
permission of Mr. Murray Guthrie, on June 19th,
concert is under the most distinguished patronage
are. Madame Eldee, Miss Marie Brema, Mr.
Mr. James McInnes, Mr. W. H. Squire, Signor
Liza Lehmann, Mr. Herz, Mrs. Gordon Woodh
Bucheit, and the Countess Valda Gleichen. An
mation may be obtained from the secretaries.
Crawshay, 3, North Audley-street, and Colonel Nee
59, Lowndes-square. We may add that ever since th
rooms have been in constant occupation, and that nu
sent out to 42 cases in Rome, Florence, Naples, and Sici
number of beds are free to British and American born su
lack of means precludes their paying the fees.

◆

H. K. S.—Diseases of the Throat, Nose, and Ear. By P.
M.D., F.R.C.P. Edin. Young J. Pentland, London and
1894. A Treatise on Diseases of the Ear. By T. Ma
F.R.C.S. Edin. London: J. and A. Churchill. 1894.
Diseases of the Ear. By Edward B. Dench, Ph.B., M.D.
Henry Kimpton and Hirschfield Bros. 1895. Price 21s.

A Volunteer Medical Officer would be glad to know who is th
person for arranging for the attendance of the medical office

corps at camp. Does it rest with the commanding officer, adjutant, or the senior medical officer, and what is the correct way of going about it?

ERRATUM —We regret that in the account of the Islington Medical Society s Jubilee dinner which appeared in our issue of June 8th, on page 1614, the age of Mr J T Jackson the one surviving original member, was wrongly given as 27 It should have been given as 80

METEOROLOGICAL READINGS

(*Taken daily at 8.30 a.m by Steward's Instruments*)

THE LANCET Office, June 13th, 1901

Date	Barometer reduced to Sea Level and 32° F	Direction of Wind.	Rainfall	Solar Radia in Vacuo	Maximum Temp Shade.	Min Temp	Wet Bulb	Dry Bulb	Remarks at 8.30 A.M
June 7	30·29	E		112	70	49	53	59	Cloudy
„ 8	30 12	E		112	73	50	54	60	Cloudy
„ 9	30·07	S E	..	120	82	58	57	65	Fine
„ 10	29·95	N E		118	73	57	55	62	Cloudy
„ 11	29·95	W N W		118	73	61	53	61	Cloudy
„ 12	29 85	W		94	63	53	53	59	Overcast
„ 13	29 61	W	0 11	102	59	45	47	53	Cloudy

Medical Diary for the ensuing Week.

OPERATIONS

METROPOLITAN

MONDAY (17th) —London (2 P M) [illegible] Thomas's (3.30 P M.), St. George [illegible] Middlesex (1.30 P M), Westmin[illegible]

[illegible]

2.30 P M)

WEDNESDAY (19th) —St Bartholomew's (1.30 P.M), University College (2 P M) Royal Free (2 P M) Middlesex (1 30 P M), Charing-cross (3 P M), St Thomas s (2 P M.), London (2 P M), King's College (2 P M), St George s (Ophthalmic, 1 P M), St Mary's (2 P.M) National Orthopædic (10 A M) St Peter's (2 P M), Samaritan (9.30 A M and 2.30 P M), Gt. Ormond street (9.30 A M) Gt Northern Central (2.30 P M) Westminster (2 P M), Metropolitan (2.30 P.M), London Throat (2 P.M), Cancer (2 P.M)

THURSDAY (20th) —St Bartholomew's (1 30 P M), St Thomas s (3.30 P M) University College (2 P M) Charing-cross (3 P M) St [illegible]

[illegible]

At the Royal Eye Hospital (2 P M), the Royal London Ophthalmic (10 A.M), the Royal Westminster Ophthalmic (1.30 P M), and the Central London Ophthalmic Hospitals operations are performed daily

SOCIETIES

FRIDAY (21st) —WEST LONDON MEDICO CHIRURGICAL SOCIETY (Hammersmith Town Hall) —Sir R D Powell: Acute Cardiac Failure (Cavendish Lecture)

LECTURES, ADDRESSES, DEMONSTRATIONS, &c

MONDAY (17th) —MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies street, W C) —4 P.M Dr J F Payne: Consultation. (Skin)

WEST LONDON POST-GRADUATE COURSE (West London Hospital W) —5 P M Mr H. P Dunn: Ocular Pain its Varieties Significance, and Treatment

TUESDAY (18th).—ROYAL COLLEGE OF PHYSICIANS OF LONDON — 5 P.M [illegible]

MEDIC. [illegible]

W C [illegible]

WEDNE[illegible]

(22 [illegible]

(Surgical)

LONDON HOSPITAL MEDICAL COLLEGE (Anatomical Theatre of the College) — 4 P M Mr Jonathan Hutchinson: Raynaud's Phenomena.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton) —4 P M Dr Schorstein: Congenital Heart Disease

THURSDAY (20th) —ROYAL COLLEGE OF PHYSICIANS OF LONDON — 5 P M Dr Halliburton: [illegible]

MEDICAL GRADUATES COLL[illegible]

W C) —4 P M Mr Hutch[illegible]

THE HOSPITAL FOR SICK CHILDREN (Gt Ormond street, W C) —4 P M Dr Voelcker: Diphtheritic Paralysis, its Recognition and Treatment

CHARING CROSS HOSPITAL.—4 P M Dr Eden: Demonstration of [illegible]

[illegible] aduate Course)

[illegible] COURSE (West London Hospital, [illegible] kward Displacement of the Uterus

[illegible] UATES COLLEGE AND POLYCLINIC [illegible] P M. Mr T Collins: Consultation (Eye)

EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS" and not in any case to any gentleman who may be supposed to be connected with the Editorial staff It is urgently necessary that attention be given to this notice

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication

We cannot prescribe or recommend practitioners

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub Editor"

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager"*

We cannot undertake to return MSS not used

MANAGER'S NOTICES.

TO SUBSCRIBERS

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W C , are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c , should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are —

FOR THE UNITED KINGDOM		TO THE COLONIES AND ABROAD	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, MR CHARLES GOOD, THE LANCET Offices, 423, Strand, London, W C

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions Any demand for increased rates, on this or any other ground, should be resisted The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage

During the week marked copies of the following newspapers have been rece[illegible] *Mercury*, *Windsor and Et*[illegible] *Bristol* *Evening News* [illegible] *rertiser*, *Sunday Times* [illegible] *Mercury* *Harrogate Herald* [illegible] *ries and* *Galloway Courier*

Communications, Letters, &c., have been received from—

A.—Messrs. Allen and Hanburys, Lond.; Messrs. Arnold and Sons, Lond.; Anglo-American and Continental Pharmaceutical Co., Croydon; A. C.; Mr. C. M. Atkinson, Ashford.

B.—Mr. T. H. Brocklehurst, Steeple Claydon; Messrs. Brady and Martin, Newcastle-on-Tyne; Messrs. Baird Bros., Glasgow; C. Birchall, Ltd., Liverpool; Birkenhead Union, Clerk of; Messrs. Burroughs, Wellcome, and Co., Lond.; Messrs. Boulton and Paul, Norwich; Burton-on-Trent Corporation, Clerk of; Mr. E. Barton-Wright, Lond.; Dr. S. S. Burt, New York; Dr. A. Brocchi, Plombières; Mr. Ball, Lond.; Mons. O. Berthier, Paris; Mr. J. R. Bentley, Reading; Mr. A. S. Barling, Lancaster.

C.—Mr. R. H. Colley, Bridgnorth; Cortland Wagon Co., Lond.; Clayton Hospital, Wakefield; Messrs. Cundall and Son, Lond.; Cardiff Infirmary, Secretary of; Messrs. J. and A. Churchill, Lond.; Dr. D. L. Cairns, Glasgow; Chester General Infirmary, Secretary of; Mr. E. M. Corner, Lond.; Dr. T. Colvin, Glasgow.

D.—Dr. A. Duke, Cheltenham; Messrs. H. Dawson and Co., Lond.; Mr. E. Darke, Lond.; Messrs. Davies and Co., Lond.; Mr. H. G. Dixon, Lond.

E.—Dr. E. N. Ewer, Oakland, Cal., U.S.A.; English and Scottish Law Life Assurance Association, Lond., Manager of; Electric Ozone Syndicate, Lond., Secretary of.

F.—Dr. L. Fox, Lucknow; Dr A. C. Ferguson, Thirsk.

G.—Dr. P. G. Griffith, Haywards Heath; Dr. C. C. Gibbes, Lond.; Great Eastern Railway Co., Lond.; Gordon's Advertising Agency, Lond.; General Hospital, Birmingham, Secretary of; Greenock Infirmary, Secretary of; Mr. Grubb, Ealing.

H.—Mr. F. W. Harnam, Lond.; Dr. Harford-Battersby, Lond.; Mr. J. W. Harrison, Batley; Mr. J. Hall-Edwards, Birmingham; Hartlepools Hospital, Secretary of; Mr. H. E. Hooper, Lond.; Hereford County and City Asylum, Secretary of; Messrs. E. and J. Hardy and Co., Lond.; Dr. W. Hunter, Lond.; Mr. A. E. Holder, Lond.; Dr. R. Hutchison, Lond.; Dr. Henry Head, Lond.; Mr. H. V. Hamilton, Donaghadee.

J.—Dr. W. Jackson, Nelson; Dr. H. W. Jacob, Great Malvern; Mrs. M. James, Cowes; J. M. B.

K.—Kidder Manufacturing Co., New York.

L.—Mr. F. Lisle, Didsbury; Messrs. Lee and Nightingale, Liverpool; Messrs. Leonard and Co., Lond.; Liverpool School of Tropical Medicine; Mons. H. Le Soudier, Paris.

M.—Dr. H. G. Macleod, Lond.; Maltine Manufacturing Co., Lond.; Mr. W. McGee, Dublin; Messrs. Macmillan and Co., Lond.; Major H. M. Morris, I.M.S., New Milton; Mendip Hills Sanatorium, Secretary of; Dr. W. H. Maling, Sunderland; *Monmouth Gazette*, Editor of; Messrs. Maclehose and Sons, Glasgow; Manchester Children's Hospital, Secretary of; Mr. R. M. Malloch, Kirkby Stephen.

N.—Mr. A. W. Nuthall, Birmingham; Nurses' Coöperation, Lond., Secretary of; Mr. H. Needes, Lond.; Messrs. Nicolay and Co., Lond.; Messrs. Norman and Stacey, Lond.; Dr. Neugebauer, Warsaw.

O.—Sir Francis Osborne, Lond.

P.—Dr. A. E. Porter, Chelmsford; Mr. Y. J. Pentland, Edinburgh; Mr. C. Pearce, Ashton-under-Lyne; Dr. R. Park, Airdrie; Peterborough Infirmary, Secretary of; Mr. E. A. Piggott, Clare; Dr. F. M. Pope, Leicester. Surgeon P. U. Prior, Sydney New South Wales.

R.—Royal College of Surgeons, Lond., Secretary of; Royal Cornwall Infirmary, Truro; Mr. R. Redpath, Newcastle-on-Tyne; Royal Albert Hospital, Devonport, Secretary of; Royal Institute of Public Health, Eastbourne, Secretary of; Dr. W. Reeve, Ramsgate.

S.—Dr. D. J. Sherrard, Hailsham; Salford Union, Clerk of; Messrs. E. Shaw and Co., Manchester; Messrs. G. Street and Co., Lond.; Messrs. Slack and Brownlow, Gorton; Dr. Sunderland, Lond.; Mr. W. G. Spencer, Lond.; Dr. G. H. Simmons, Chicago; Mr. Morton Smale, Lond; Société Mutuelle du Publicité, Paris; Scholastic, Clerical, &c., Association, Lond.

T.—Tower House, Westgate-on-Sea, Secretary of.

U.—University College, Sheffield, Registrar of.

V.—Mr. Leopold Voss, Hamburg; Mr. J. W. Vickers, Lond.

W.—Dr. G. M. Wilson, Conway; Western General Hospital, Lond.; Weston-super-Mare Hospital, Secretary of; West Bromwich Union, Clerk of; Dr. T. Jason Wood, Bradford; Worksop Dispensary, &c., Secretary of.

Z.—Messrs. A. and M. Zimmermann, Lond.

Letters, each with enclosure, are also acknowledged from—

A.—Mr. C. S. Agnew, Welwyn; Ashwood House, Kingswinford, Medical Superintendent of; Apollinaris Co., Lond.; A. K.; Dr. J. P. Aitchison, Blackburn; A. V. G., Stoke.

B.—Mr. W. R. Bhat, Pontypridd; Beta, Newcastle-on-Tyne; Mr. J. F. E. Bridger, Antigua; Dr. H. W. Bernard, Lancaster, Borough Asylum, Ipswich, Medical Superintendent of Mr. M. Bellini, Athens; Mr. J. G. Brereton, Ryde; Messrs. Battle and Co., Neuilly-sur-Seine; Dr. Bruce, West Cornforth; Messrs. Baird Bros., Lond.; Dr. L. H. Bennett, Paignton; Mr. W. L. Byham, Sunbury.

C.—Mr. J. Campbell, Inverkip; C. L.; County Borough of South Shields, Clerk of; C. R. S.; Central London Throat, &c., Hospital; C. S. W., C. E. R., Mr. J. C. Creswell, Billericay; Dr. C. Coles, Leicester; C. R. G.; C. M. F.

D.—Mr. J. T. Davenport, Lond.; Dumfries and Galloway Royal Infirmary, Secretary of; Messrs. Down Bros., Lond., Lieutenant-Colonel G. Dennys, I.M.S., Peshawar, India; Dr. T. Dobson, Windermere; Dr. W. Dickson, Leicester; Mr. D. Davies, Llandovery; D. F.; Dr. T. Dewar, Hetton-le-Hole.

E.—East Suffolk and Ipswich Hospital, Secretary of; E. L. C.; Eccles and Patricroft Hospital, Secretary of; E. F. S. G.

F.—Messrs. J. S. Forsaith and Son, Lond.; Felix, Lond., Folkestone Medical Society, Hon. Secretary of; F. C.

G.—Mr. A. H. Griffith, Manchester; Messrs. Gilyard Bros., Bradford; Messrs. W. Gaymer and Son, Attleborough; Mr. J. Gillan, Ryhope; Mr. J. Good, Stockport; Herr J. Grégr, Prag.; G. F. P.; Messrs. Guest, Keen, and Co., Dowlais; Glamorgan County Asylum, Secretary of.

H.—Mr. H. H. Hurnard, Ingham; Mr. R. Holton, Hednesford; Dr. L. F. Hemmans, Great Yarmouth; Hunter, Caergwrle; H. E. G.; H. C.; Dr. H.

I.—Isle of Wight County Asylum, Newport, Clerk of; J. J. L.; J. R. W.

J.—Mrs. M. A. Jones, Saffron Walden; J. M. H.; J. P. L.; J. P. L.

K.—Dr. W. Kirk, Shanghai.

L.—Dr. A. W. W. Lea, Congleton; Lee's Advertising Agency, Lond.; Dr. A. Leitch, Cornsay Colliery; Messrs. W. Le Lachem and Son, Lond.

M.—Mr. R. Moreton, Ellesmere; Medical Graduates' College, Lond., Secretary of; Mr. C. B. Moss-Blundell, Thornton Heath; Mr. A. J. Manasseh, Beyrout; Mr. E. C. Masser, Moseley; Manchester Hospital for Consumption, Secretary of; M.D.; Manchester Medical Agency; Mr. G. Mott, Stanmore; Dr. Mackay, Crook; Mr. E. H. Monks, Wigan; Manchester Clinical Hospital, Secretary of; *Makerfield Examiner*, Newton-le-Willows.

N.—North London Nursing Institute, Lady Superintendent of; N. C.

P.—Dr. W. H. Packer, Cressage; Mr. H. J. Palmer, Gamlingay; Dr. R. C. Peacocke, Birmingham; Mr. W. C. C. Pakes, Lond.; *Philadelphia Medical Journal*; Mr. C. Pearce, Ashton-under-Lyne.

R.—Royal Surrey County Hospital, Guildford; Royal Alexandra Infirmary, Paisley, Secretary of; Royal Alexandra Hospital for Sick Children, Brighton, Secretary of; *Rotherham Advertiser*; Mr. R. Rogers, Lond.; R. M., Lond.; Miss Ringwood, Haslemere; Mr. W. J. Robertson, Lond.; Dr. D. T. Richards, Risca; R. A. D.; R. M. W.; Royal Edinburgh Asylum, Morningside, Secretary of.

S.—Mr. A. F. Stevens, Stratford-on-Avon; Mr. J. Sampson, York; Messrs. Smith and Gill, Sheffield; Mrs. Stoneham, Wiston. Suffolk General Hospital, Bury St. Edmunds, Secretary of, Sanatoria, Bridge of Weir; S. W. W.; Stockport Infirmary, Secretary of.

T.—Dr. H. Torney, Cowbridge; Mr. J. A. Thornhill, Burton-on-Trent; Mr. J. Thin, Edinburgh; T. H. T.

W.—Mr. J. Woodhead, Huddersfield; Dr. W.; W. J.; W. C. R.; Wrexham Infirmary, Secretary of; W. F. G.; W. E. P.; Messrs. H. Wilson and Son, Lond.

Y.—Dr. Y.

EVERY FRIDAY. **THE LANCET.** PRICE SEVENPENCE.

SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.				TO THE COLONIES AND ABROAD.			
One Year	£1	12	6	One Year	£1	14	8
Six Months	0	16	3	Six Months	0	17	4
Three Months	0	8	2	Three Months	0	8	8

Subscriptions (which may commence at any time) are payable in advance.

ADVERTISING.

Books and Publications ...	Seven Lines and under	£0	5	0
Official and General Announcements	Ditto	0	5	0
Trade and Miscellaneous Advertisements	Ditto	0	4	6
	Every additional Line	0	0	6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.

Terms for Position Pages and Serial Insertions on application.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris.

AN ABSTRACT OF

The Croonian Lectures

ON

THE CHEMICAL SIDE OF NERVOUS ACTIVITY.

Delivered before the Royal College of Physicians of London on June 11th, 13th, 18th, and 20th, 1901,

By W. D. HALLIBURTON, M.D.,
F.R.C.P. Lond., F.R.S.,
PROFESSOR OF PHYSIOLOGY, KING'S COLLEGE, LONDON.

LECTURE III.[1]

Delivered on June 18th, 1901

THE lecturer stated that in his two concluding lectures he proposed to deal with the more strictly pathological side of the subject. Chemical pathology was a comparatively new branch of science and it had a great future before it. He stated that the credit of opening up a new area of research—namely, the application of chemical methods to the investigation of nervous disease—should be largely given to his colleague, Dr. Mott. The three researches with which he proposed to deal were: (1) the chemical pathology of hyperpyrexia; (2) the chemical pathology of general paralysis of the insane; and (3) the chemistry of Wallerian degeneration.

THE CHEMICAL PATHOLOGY OF HYPERPYREXIA.

The experiments on this subject were described in detail. The lecturer said:

These experiments may be summed up by saying that they fully confirm the hypothesis that the physico chemical cause of death from hyperpyrexia is heat-coagulation of cell-globulin. When this constituent of cell-protoplasm is coagulated the vitality of protoplasm is destroyed, just as muscle loses its irritability when the corresponding proteid in that tissue is coagulated. The temperature at which such coagulation is most readily produced is 47° C. Such a temperature in animals is almost instantaneously fatal. But 47° C. (117° F.) is unknown in man. Nevertheless, proteids will coagulate at temperatures below their normal coagulating point provided the heating is continued long enough. In the case of cell globulin, coagulation can be produced by a temperature as low as 42° C. (108° F.). This chemical change in the brain substance can be demonstrated by experiments with saline extracts of that tissue or with the "surviving" brain of animals just killed. They are coincident with the histological (chromatolytic) changes in the nerve-cells which can be rendered evident by the use of the methylene-blue process. The expression "coagulation necrosis" employed by Marinesco for this appearance is therefore justifiable. Marinesco and others who have employed exclusively histological methods of research have naturally failed to grasp the chemical meaning of their observations and have consequently missed the connexion of the temperature necessary to produce these changes with that of the coagulation temperature of cell-globulin. Although the nerve cells are those which lend themselves most readily to the histological part of the research it is by no means improbable (looking at the wide distribution of cell-globulin) that many other cells of the body are affected by high temperatures in a corresponding manner; some varieties of what is called "cloudy swelling" are without doubt instances of coagulation necrosis.

THE CHEMICAL PATHOLOGY OF GENERAL PARALYSIS OF THE INSANE.

Dr. Halliburton stated that his work (in collaboration with Dr. Mott) on this subject had been previously published. He would therefore only describe it in general terms. He did so in order to lead up to the consideration of the third pathological subject which he proposed to deal with and which he reserved for his final lecture. He said:

The cerebro-spinal fluid removed from cases of general paralysis of the insane is much increased in quantity and takes the place of the atrophied brain material. It produces when injected into the circulation of anæsthetised animals (dogs, cats, or rabbits) a fall of arterial blood-pressure with little or no effect on respiration. This pathological fluid is richer in proteid matter than is the normal fluid, and among the proteids nucleo-proteid is present. The fall of blood-pressure is, however, due not to proteid or to inorganic constituents, but to an organic substance which is soluble in alcohol. This substance is precipitable by phospho-tungstic acid and by chemical methods it was identified as choline. The crystals of the platinum double salt, which when crystalised from 15 per cent alcohol are characteristic octahedra, form the most convenient test for the separation and identification of this base.

The nucleo-proteid and choline doubtless originate from the disintegration of the brain tissue and their presence indicates that possibly some of the symptoms of general paralysis may be due to auto-intoxication; these substances pass into the blood, for the cerebro-spinal fluid acts as the lymph of the central nervous system. Choline can be detected in the blood removed by venesection from these patients during the convulsive seizures which form a prominent symptom in the disease.

Normal cerebro-spinal fluid does not contain nucleo-proteid and the amount of choline is so small that it cannot be readily identified. Normal cerebro-spinal fluid produces no effect on arterial pressure; neither does the alcoholic extract of normal blood or of ordinary dropsical effusions.

The presence of choline in the pathological cerebro-spinal fluid and blood will not explain all the symptoms of general paralysis—for instance, it will not account for the fits just referred to. Its presence, however, is an indication that an acute disintegration of the cerebral tissues has occurred. If other poisonous substances are also present they have still to be discovered.

The proof that the toxic material is choline, rests not only on the chemical tests, but also on the evidence afforded by physiological experiments; the action of the cerebro-spinal substance exactly resembles that of choline. Neurine, an alkaloid closely related to choline, is not present in the fluid; its toxic action is much more powerful and its effects differ considerably from those of choline.

Physiological action of choline.—The doses employed were from one to 10 cubic centimetres of a 0.2 per cent. solution, either of choline or of its hydro-chloride. These were injected intravenously in anæsthetised animals. The fall of blood pressure is in some measure due to its action on the heart, but it is mainly produced by dilatation of the peripheral vessels, especially in the intestinal area. This was demonstrated by the use of an intestinal oncometer. The limbs and kidneys are somewhat lessened in volume; this appears to be a passive effect, secondary to the fall in general blood-pressure. The drug causes a marked contraction of the spleen, followed by an exaggeration of the normal curves, due to the alternative systole and diastole of that organ. The action on the splanchnic vessels is due to the direct action of the base on the neuro-muscular mechanism of the blood-vessels themselves; for after the influence of the central nervous system has been removed by section of the spinal cord or of the splanchnic nerves choline still causes the typical fall of blood pressure. The action of peripheral ganglia was in other experiments excluded by poisoning the animal previously with nicotine. Section of the vagi produces no effect on the results of injecting choline. There was no evidence of any direct action of the base on the cerebral vessels. Choline has no effect on respiration.

The effect of choline soon passes off and the blood-pressure returns to its previous level. This is due partly to the great dilution of the substance injected by the whole volume of the blood and may be partly due to the excretion of the alkaloid or to its being broken up into simpler substances by metabolic processes. It does not pass as such into the urine.

If the animal has previously received an injection of atropine, the effect produced by choline is a rise of arterial pressure, accompanied by a rise of the lever of the intestinal oncometer. This observation appears to be of some importance, for it shows how the action of one poison may be modified by the presence of another. This has some bearing on general paralysis, for the arterial tension in the early stages of that disease is usually high, not low, as it would be if choline were the only toxic agent at work. After a succession of fits the tension sinks, and this may be explained as a result of choline action.

---

[1] Abstracts of Lectures I. and II. were published in THE LANCET of June 15th, p. 1659.

Physiological action of neurine.—The doses employed varied from one to five cubic centimetres of a 0·1 per cent. solution. These were injected intravenously. Neurine produces a fall of arterial pressure, followed by a marked rise and a subsequent fall to the normal level. The effect of neurine on the heart of both frog and mammal is much more marked than is the case with choline; in the case of both choline and neurine the action on the heart is antagonised by atropine. The slowing and weakening of the heart account for the preliminary fall of blood-pressure. The rise of blood-pressure which occurs after the fall is due to the constriction of the peripheral vessels, evidence of which was obtained by the use of oncometers for intestine, spleen, and kidney. It produces a marked effect on the respiration. This is first greatly increased, but with each successive dose the effect is less, and ultimately the respiration becomes weaker and ceases altogether. The animal can still be kept alive by artificial respiration. In large doses neurine acts like curare on the nerve endings of voluntary muscle. It should be mentioned that in the cases of brain atrophy referred to the cerebro-spinal fluid was removed as a rule soon after death. Specimens removed during life by lumbar puncture give, however, the same results.

[The lecture was illustrated by a number of lantern slides to show the histological changes in nerve-cells referred to, and also the graphic records of the experiments on blood-pressure, &c., in connexion with choline, neurine, and cerebro-spinal fluid.]

LECTURE IV.

Delivered on June 20th, 1901.

The Chemistry of Nerve Degeneration.

The concluding lecture dealt with the chemistry of Wallerian degeneration, the third of the pathological questions to which the lecturer had alluded at the commencement of his previous lecture. Dr. Halliburton said:—

It has been now shown that in the disease general paralysis of the insane the marked degeneration that occurs in the brain is accompanied by the passing of the products of degeneration into the cerebro-spinal fluid. Of these, nucleo-proteid and choline are those which can be most readily detected. Choline can also be found in the blood. On continuing work in this direction it was found that this is not peculiar to the disease just mentioned, but that in various other degenerative nervous diseases (combined sclerosis, disseminated sclerosis, alcoholic neuritis, and beri-beri), choline can also be detected in the blood. The tests employed to detect choline are mainly two: (1) a chemical test—namely, the obtaining of the characteristic octahedral crystals of the platino-chloride from the alcoholic extract of the blood; and (2) a physiological test—namely, the lowering of blood-pressure (partly cardiac in origin and partly due to dilatation of peripheral vessels) which a saline solution of the residue of the alcoholic extract produces; this fall is abolished or even replaced by a rise of arterial pressure if the animal has been atropinised. It is possible that such tests may be of diagnostic value in the distinction between organic and so-called functional diseases of the nervous system. The chemical test can frequently be obtained with 10 cubic centimetres of blood. A similar condition of the blood was produced artificially in cats by a division of both sciatic nerves and is most marked in those animals in which the degenerative process is at its height, as tested histologically by the Marchi reaction.

The Marchi reaction is the black staining produced by Marchi's fluid, a mixture of Müller's fluid and osmic acid, after the tissue has been previously hardened in Müller's fluid. Osmic acid by itself stains the medullary sheath of fresh healthy nerve-fibres black, but if the healthy nerve-fibres have been previously treated with a chromic solution like Müller's fluid they take on a greenish-grey colour with Marchi's fluid. Neutral fat, on the other hand, such as in ordinary adipose tissue, is stained black by Marchi's fluid under all conditions and the degenerated fat which appears in Wallerian degeneration resembles the fat of adipose tissue in this respect. The chemical explanation of the Marchi reaction is the replacement of phosphorised by non-phosphorised or neutral fat. When the Marchi reaction disappears in the later stages of degeneration the non-phosphorised fat has been absorbed. These facts were established by chemical analysis of the nerves.

The axis cylinder participates in the fatty degeneration; and the multiplication of the nuclei of the primitive sheath is first noticed about the eighth day and is possibly due to the irritation set up by the presence of the products of disintegration.

The main facts regarding the experiments in animals may be summarised as follows. A series of 18 cats was taken; both sciatic nerves were divided, and the animals were subsequently killed at intervals varying from one to 106 days. The nerves remain practically normal as long as they remain irritable—that is, up to three days after the operation. They then show a progressive increase in the percentage of water and a progressive decrease in the percentage of phosphorus until degeneration is complete. When regeneration occurs the nerves return approximately to their previous chemical condition. The absorption of the fatty products occurs earlier in the peripheral nerves than in the central nervous system. This confirms previous observations by Mott and Barratt on human spinal cords, in which unilateral degeneration of the pyramidal tract by brain lesions produced an increase of water and a diminution of phosphorus in the degenerated side of the cord which stained by the Marchi reaction. The main results of the experiments on animals are given in the following table:—

Days after section.	Cats' sciatic nerves.			Condition of blood.	Condition of nerves.
	Water.	Solids.	Percentage of phosphorus in solids.		
Normal.	65·1	34 9	1·1	Minimal traces of choline present.	Nerves irritable and histologically healthy.
1–3	64·5	35 5	0·9		
4–6	69·3	30·7	0·9	Choline more abundant.	Irritability lost; degeneration beginning.
8	68 2	31·8	0·5	Choline abundant.	Degeneration well shown by the Marchi reaction.
10	70·7	29·3	0·3		
13	71 3	28 7	0·2		
25–27	72 1	27·9	Traces.	Choline much less.	Marchi reaction still seen, but absorption of degenerated fat has set in.
29	72 5	27 5	0·0		
44	72·6	27·4	0·0	Choline almost disappeared.	Absorption of fat practically complete.
100–106	66·2	33·8	0·9		Return of function; nerves regenerated.

Our chemical knowledge of the process of Wallerian degeneration is thus mainly limited to what occurs in lecithin, the main constituent of myelin. This substance is broken up into its constituents, and each of these is in time removed by absorption. The products of disintegration are four in number: (1) choline—this is removed first and can be detected for a time in the blood; (2) phosphoric acid—this disappears next; and (3 and 4) fatty acid and glycerine—these are the elements of a neutral fat and the fat so formed resembles other neutral fats by giving the black Marchi reaction. In time, however, this is removed also. In the removal of the fat, certain cells, probably the hypertrophied cells of the neurilemma, can be seen microscopically to play a phagocytic rôle.

Noll has shown another interesting fact in connexion with "disuse atrophy"—that is, the change which occurs in the central end of a divided nerve before regeneration has occurred. Here there is also some diminution in the amount of protagon, though not nearly so great as in the peripheral end of the nerve.

[The lecture was illustrated by a number of lantern slides, to show the relationship between the histological and chemical changes which occur in divided nerves. Other slides were reproductions of the tracings showing the effects upon arterial pressure of the choline separated out from the blood of the cases of nervous disease mentioned, and from the blood of the cats operated on. These and others will be reproduced and full details of all the experiments will be given when the lecturer publishes these lectures in a separate form, which he hopes to be able to do shortly.]

Three Lectures

ON

THE PRACTICAL POINTS IN THE TREATMENT OF THREATENED ASPHYXIA.

Delivered at the Medical Graduates' College and Polyclinic, Chenies street, W.C.,

By ROBERT L. BOWLES, M.D. St And., F.R C.P. Lond.,

CONSULTING PHYSICIAN TO THE FOLKESTONE HOSPITAL, PHYSICIAN TO ST ANDREW'S CONVALESCENT HOME.

LECTURE I.

GENTLEMEN,—The object of this short course of lectures is to engage your attention on a subject apparently simple and to show that on closer consideration it is a subject wide and all-embracing. To organic nature air is life, and the prevention of a due and proper supply implies either immediate or slow impending death. The regular, orderly, vital and chemical processes necessary to the well-being of plants and animal life can only continue by a supply of oxygen in a suitable form, and that form is supplied to us by nature as "atmospheric air." Now this air, so freely supplied, is introduced to the bodies of men and animals by the air passages, and it is, of course, essential that those passages should be free and safe from obstructions, partial or complete. It is this department, the department of respiration, with which I shall principally have to occupy your attention. Inasmuch as all obstructions, whatever their source, must immediately depend upon mechanical or physical causes, my subject might well be entitled "The Physics of the Upper Air Passages and their Relations in Health, Accident, and Disease."

The *nature* of atmospheric air I need not dwell upon; you all realise as men of experience that it is in the concrete a proportionate mixture of nitrogen, oxygen, and argon, a small quantity of carbonic acid and an ever-varying proportion of vapour and incidental gases, and that it suspends and has mingled with it endless organisms and atoms, ordinarily inappreciable to our senses, but doubtless having relations with our bodily welfare so far unknown and inscrutable With the physics of our bodies it is different; here we must at once closely question the relations of part with part, their size, shape, and form, and their interactions. We must, in short, "look up" our anatomy and refresh our minds with the physiology pertaining to respiration.

The tendency of modern medicine is to drift more and more exclusively into the due and proper application of the laws of physics to the wants and derangements of suffering humanity, to make in short more truly the man of physics, the physician of to-day, and so more like our forefathers in the days of Hippocrates, when heat, light, rest and repose, exercise, gymnastics, baths, friction, and suitable food and drink were the remedies principally relied upon by the great leaders of the healing art in the relief and cure of disease. Dr Vivian Poore in his admirable Harveian oration says: "Greek philosophy, and Greek medicine as a part of it, was grounded on the solid basis of observation. It was the product of sound minds trained in the pure atmosphere of liberty and nurtured in sound bodies developed by manly exercises" Later he says: "Darkness gradually overwhelmed the enlightenment of the Greeks. Philosophy gave way to mysticism; reason was swallowed up by superstition, and inquiry was strangled by authority. Men engaged in endless speculations and tried by fire and sword to settle questions which could not be solved by reason—questions which now barely serve to furnish a little damp ammunition for the political pyrotechnist. Intellectual training was almost limited to dialectics, and men could argue so nimbly and with such faultless logic from phantom premisses as to justify the later witticism that language was given us to conceal our thoughts. Under these blighting influences medicine withered almost to death, and the physicians of the fourteenth century were more ignorant than those of the first century. It is tolerably certain, to take a concrete example, that the beloved companion of St Paul had a more extended and more scientific grasp of medicine than the immediate predecessors of Vesalius and Harvey."

All our organs of special sense are concerned with the relations of physics to our bodies and with their proper application—indeed, it would appear as if the senses could have no other purpose—and the instruments of the physician as well as of the surgeon are employed to aid and to strengthen the senses in their work: lenses and microscopes for the sight, stethoscopes and pleximeters for the hearing, thermometers for recording the bodily temperature, and so forth, apart from the supports, splints, bandages, and the many and highly perfected instruments of the practising surgeon.

The relations of the laws of physics to the derangements which may occur in the *respiratory* processes in health, accident, and disease are of extreme interest and importance. A child in the midst of play and happiness is seized with dyspnœa, apnœa, and asphyxia ending in death; a pea is found in a large bronchial tube, or a morsel of food or other foreign body in the larynx, and so the disaster is explained. Another child is only too well covered with bed-clothes and in the morning is found smothered in bed. A man has fallen by the wayside and is first seen in profound coma with heavy stertorous breathing and so is being slowly but indirectly suffocated by the paralysis consequent upon a cerebral hæmorrhage or by an injury to the cranium giving rise to compression of the brain; or a patient has just been rescued from the water and is dying on the river bank from suffocation caused by the retention of watery foam in the lungs and air passages. Others may be suffocating from the coagulum of hæmoptysis or from croup, pneumonia, bronchitis, or other diseases within the air passages, and yet others from mechanical pressure outside the chest, or outside the principal air ways, as in aneurysm, new growths, or glandular enlargements. We have all seen cases of these different forms of respiratory catastrophes and we have all applied the principles of physics in their relief, but inasmuch as I have for over 40 years given very special attention to this subject and have made it an experimental study I am not without hope that I may excite in you a new and greater interest in it for the future, and that you will find the principle involved "an ever present help in time of trouble."

"Searching out the secrets of nature by way of experiment" was the guiding principle of the immortal Harvey, and "do not think but try" was equally the guiding principle of that wonder of the more recent past, John Hunter. In connexion with the relative values of observation and of experiment the great Virchow in his "Cellular Pathology" says: "By observation is obtained the verification of facts; by experiment are acquired the precise methods for re-proving them. Above all, observation is directed on the ultimate elements accessible to the senses of man; medical science is divided into an enormous heap of individual facts which appear to confuse the minds of many But for him who dominates the facts on which the new views are founded an order is revealed that, departing from a general biological principle, permits the new discoveries to be connected according to their value, according to their mutual relations, into a scientfic whole." With views similar to these and with a similar object, under the able supervision of that brilliant physiologist, the late Dr. Marshall Hall, our first experiments were instituted at St George's Hospital to *re-prove* by precise methods certain facts observed in the drowned and to investigate the then accepted methods for resuscitation.

It was in the autumn of 1855 that I first had the privilege of knowing Dr Marshall Hall He was then suffering from a malady which he knew must prove fatal; not only was he in constant suffering but in constant danger of sudden death from spasm of the glottis, or of a slower death from starvation, and yet he was at that time pursuing with the utmost ardour two important physiological inquiries—the one, in consequence of the notorious "Palmer trial," on the detection of strychnine in solution by its extraordinary influence on the spinal system of frogs, and the other on the effects of suspended respiration and the best means of restoring the patient affected by that suspension. It was at this time that I was invited to join Dr. E. Long Fox, now of Clifton, and the late Mr. Charles Hunter in an inquiry on the amount of air which could be introduced into the chest by alternate pressure on and relaxation of the chest-walls—to test, in fact, the value of Leroy's principle. Out of this inquiry arose many unexpected and interesting observations which were at once made the subject of further experiment by which principles of a far-reaching character were ultimately established and made applicable in the treatment of many forms of accident and disease as well as in suspended animation from drowning. In consequence of the state of his health Dr. Marshall Hall was not able to be present at any of our experiments in the post-mortem room; so each of us took separate notes, made our observations on the work we had done in the day quite independently, and gave suggestions for further work. These were separately posted to Dr. Marshall Hall and the next day we all went to tea with him, discussed our proceedings, and took down his suggestions for the following day's work.

This little preliminary history I think necessary to the true understanding of our subject. Dr. Marshall Hall recognised three main facts—first, that the warm bath was a slow poisoning process if used before respiration was established; secondly, that drowning was a form of apnœa, but that the forcing of air into the patient's mouth or nostrils had not proved a successful method of introducing air into the lungs; and thirdly, that the elasticity of the chest-walls ought to be sufficient to introduce the amount of air required to support life, and it was to prove this last proposition that we were requested to perform the necessary experiments. It will now be convenient shortly to demonstrate the nature of those experiments, the anatomical relations of the parts concerned, and the physiological and pathological indications of the experiments themselves. The mode of procedure was the following and was published at the time. "An indiarubber tube was inserted into one nostril, the opposite one, with the mouth, being closed and rendered air-tight by plasters, bandages, &c. The free end of the tube was now attached to a glass syphon containing a small quantity of water in its bend, and to the opposite end of this syphon was fastened an oiled-silk bag made in the form of an intestine, to which it was similar in appearance and calibre when inflated. This bag, when full, contained 40 cubic inches. The water in the syphon acted as an index of the direction of the air in its passage to or from the bag, or, as we have called it in the experiments, the oiled silk tube. It was the amount of air expired into this tube on pronation and pressure which enabled us to compare it with the natural expiration of 30 inches, for when the tube was half-filled, which was easily proved by pressing the air towards its closed extremity, we inferred that we had 20 cubic inches in the tube, and so on. We did not pretend to perfect accuracy as to the amount, but it must be an exceedingly near approximation to the truth. I think you will also see in these experiments proof that though the supine position does not in every case prevent the passage of air it does so in a large proportion of cases; and if it does so in one case only that appears to me quite reason enough why that position should be avoided.

"*Subject 1.*—A male subject, much emaciated, about 50 years of age, and six feet in height; the body was not quite cold, and cadaveric rigidity had but partially come on; he had been dead 10 hours. The apex of the tongue reached the incisors, and the body of the tongue was at the floor of the mouth, so that a considerable space existed between its surface and the roof of the mouth. Some fluid was seen at the back of the fauces and on laying the body on its face a large quantity of fluids and solids from the stomach made their escape.

"*Experiment 1.*—Semi-rotation, prone and lateral. In the former position the tube was half filled with air, and in the latter it was instantly emptied.

"*Experiment 2.*—By alternate pressure and relaxation on the thorax (the subject supine) the same result was obtained as in Experiment 1.

"*Experiment 3.*—Semi-rotation, prone and lateral, was again had recourse to and with the same result as before.

"*Experiment 4.*—Alternate pressure and relaxation on the thorax in the supine position. *This time, not the slightest inspiration or expiration could be obtained.* On removing the coverings of the mouth the tongue was seen to be in the same position as when we began, but *there was again fluid in the pharynx.*

"*Remarks.*—This case demonstrates how, in the *supine* position, fluids in the stomach might interfere with respiration; for in Experiment 2 a good result was obtained, no fluid being in the pharynx; but after the further movements of Experiment 3 grumous fluid had been ejected from the stomach, filling up the pharynx and totally preventing the passage of air into or out of the trachea. This case also shows that the epiglottis does not in all cases cover the glottis in the supine position."

On the publication of my letter and report[1] Dr. Marshall Hall issued a set of rules for the application of the "Ready method." These were at once adopted by the rank and file of the profession—that part of it, indeed, which almost exclusively attended to such emergencies—and cases of the most wonderful recoveries were published week by week in the medical press. THE LANCET wrote laudatory articles, changed the name of the system to the "Marshall Hall method," and "Deodatus" would have been the lowest title accorded by the great body of the profession to Dr. Marshall Hall at that particular time. Meanwhile the Royal Humane Society, under the ægis of the great Sir Benjamin Brodie, held superbly aloof, stuck to the comforts of the warm bath, and would only touch the new method with the tips of its fingers—a healthy *non possumus*, as I think, in the teeth of such a threatened revolution, although the action of the society was opposed to the views based on our experiments. But more and more wonders were week by week related, until in 1858 Dr. H. R. Silvester came forward with a newer method still and called a halt in the general acclaim. Dr. Silvester repeated and confirmed our experiments on the dead body—viz., that compression and relaxation of the chest-walls gave rise to a movement of air into and out of the lungs, but he claimed, and rightly claimed, that more air could be introduced by extending the arms upwards and expanding the chest. This fact had already been well known to us in the course of our experiments, but it had also been clearly demonstrated by us that inasmuch as the supine position of the body was essential to the proper application of the arm-extension method of treatment it was quite useless as a recommendation for use by the general public in the resuscitation of those apparently drowned, and it was for the use of the life-saving societies and the non-professional public that our experimental inquiry had been conducted.

You will at once see, after what I have told you about throat, laryngeal, and bronchial obstructions from gravitation, the importance of not in any sense permitting the public to put their trust in any method which implied the necessity of the supine position of the body. Dr. Silvester says that by his method 10 times more air was respired than by the Marshall Hall method, but I cannot find in the first or third edition of his pamphlet any evidence of his having *measured* the amount of the air; the only point that he demonstrates is that water rose and fell in a bent barometer tube as in our syphon, so that in that way only a cubic inch of air or less could have been acted on. I am quite sure, however, that more air is respired by the raising of the arms, for we, as I have said, found it to be so long prior to Dr. Silvester's appearance in the field.

But the *amount* of air respired is entirely a secondary consideration; people nigh unto death or in states of syncope require very little air indeed to keep alight the spark of life. The matter of primary importance is to ensure a free and open air way, to see that there is no obstruction anywhere *en route*, and that nothing is present in the lungs to prevent the air from penetrating freely the finest of the bronchial tubes and from reaching the alveoli themselves. From dissection I have shown how easy it is in the supine position for the tongue to fall back into the pharynx and to lie in comatose or syncopal conditions, with its epiglottis on the posterior wall of the pharynx and so to block the air way, and for fluids or food to collect and to gravitate in the buccal and nasal cavities, and by our very attempts to save life in this position of the body for fluids or solids to be inspired or forced into the tubes and air cells of the lungs.

In drowning beyond and above all accidents affecting the respiratory process is the prominent and palpable fact that the lungs are stuffed and filled with froth, fine foam, and fluid varying in quantity, quality, and consistence, according to the circumstances attending the disaster. This is a fact attested by all the leading pathologists of Europe and about which there can, I think, now be no doubt whatever. Granting this, we see at once that Dr. Silvester, instead of providing for the clearance of the lungs, so directed his experiments as to determine the greatest amount of air which could be introduced into lungs already clear and in a normal condition, a proceeding which, for reasons now obvious to you, did not apply to cases of drowning; and, moreover, he introduced the air through an opening directly into the trachea, thus doing away with the protective influences of the glottis in the living body and avoiding the danger of blocked air ways in the dead subject under experiments. However, his "method" was two years newer than ours, which is much to say in these days of haste and hurry, and the assumption that by it more air could be introduced into the chest attracted so much attention and gave rise to so much discussion that the Royal Medical and Chirurgical Society was induced to appoint a committee to adjudicate on the relative merits of the methods of resuscitation then in vogue for the treatment of apnœa and drowning. That committee, which had for its chairman Dr. C. J. B. Williams and included such men as Dr. Kirkes, Dr. George Harley, Dr. (now Sir) John Burdon Sanderson, Dr. Brown-Séquard, Dr. Hyde Salter, Sir Edward Sieveking, and Mr. Savory, was certain to uphold the honour of the society which those great names represented and certain also to command the confidence of the life-saving societies and the profession generally. Their report was read at the society on July 1st, 1862, and was published in Vol. XLV. of their Transactions and in THE LANCET.[2] The details of the experiments, although most interesting and instructive, for brevity's sake I omit. The committee first investigated anew the phenomena of apnœa in its least complicated form —viz., when produced by simply depriving the animal of air—and next the subject of drowning, especially as to the period during which an animal could be submerged and "yet recover without the aid of artificial respiration." Next the treatment of apnœa was considered, and next the experiments on the dead subject and a treatment of the apparently drowned based on those experiments was suggested, and it is with these that we shall for the moment chiefly concern ourselves. The report says[3]: "These experiments satisfactorily show that the difference between apnœa produced by plugging of the trachea and that brought about by drowning is not due to submersion, to depression of temperature, or to struggles, seeing that the two animals are placed under similar conditions, with this most important exemption—that in the one case a free passage of air out of the lungs and of water into them is permitted; in the other the exit of air and the entrance of water are prevented. There can be no doubt that both these circumstances are concerned in producing the difference in the results of the two experiments; but that the fact that animals do not recover after so short a period of immersion is mainly due to the entrance of water and the effects thereby produced seems to be established by the following considerations: The condition of the lungs, as revealed by the post-mortem examination. On examining the lungs of the animals deprived of air by plugging the trachea they were found simply congested, but in the animals drowned not only was the congestion much more intense, accompanied with ecchymosed points on the surface and in the substance of the lung, but the air-tubes—[and there, gentlemen, is the conclusion of the whole matter]—were completely choked up with a sanious foam, consisting of blood, water, and mucus churned up with the air in the lungs by the respiratory efforts of the animal. The lung substance, too, appeared to be saturated and sodden with water which, stained slightly with blood, poured out at any point where a section was made. Whether this frothy water which thus poured out from the cut surfaces escaped only from minute tubes or had any of it reached the ultimate air-cells and was poured out from the spongy surface itself could not well be determined; it certainly escaped from parts of the cut surface not occupied by air tubes of visible size. The lung thus sodden with water was heavy (though it floated), doughy, pitted on pressure, and was incapable of collapsing. It is not difficult to understand how by such infarction of the tubes air is debarred from reaching the pulmonary cells; indeed, the inability of the lungs to collapse on opening the chest is a proof of the obstruction which the froth occupying the air tubes offers to the transit of air."

---

[1] THE LANCET, Oct. 18th, 1856, p. 440.

The gasping but fruitless attempts at inspiration in drowned animals after removal from the water contrast strongly with the fact that an inspiratory effort after the removal of the plug in simple apnœa is almost invariably successful and followed by recovery, and accords with the different conditions discovered by a post-mortem examination. The conclusion thus arrived at is confirmed by the great length of time that the heart continues to act after submersion. The entire dependence of the early fatal issue in apnœa by drowning upon the patulous condition of the windpipe and its results were strikingly shown in another way by experiment.

Experiment 40.—A strong dog had its windpipe plugged in the usual manner and was then "drowned"—i.e., submerged in water for four minutes; three-quarters of a minute after its release it breathed and in four minutes had recovered fully.

Experiment 41.—A large dog was treated in exactly the same way and with exactly the same result—perfect and immediate recovery after four minutes' submersion.

Experiment 42.—A medium-sized dog was plugged and submerged, just as were the others. The result was just the same—after four minutes perfect recovery.

Here, then, are three cases of recovery after a four-minute apnœa in which the dogs were in every respect under the conditions of drowned animals except that their windpipes were plugged. These experiments form an admirable contrast to the cases of mere drowning without plugging.

Seeing that the entrance of water into the lungs and the formation of foam by its admixture with the air in the bronchial tubes, together with the mucus of their surface, are due to the violent respiratory efforts during the first minute of submersion it appeared that if these efforts could by any means be diminished the result might be somewhat modified. With the view of testing the validity of this opinion dogs were put under the influence of chloroform, and it was found that by simply depriving the animal of the power of breathing without respiratory efforts the periods during which submersion may be continued and recovery follow is at once prolonged. The experiments on the dead body for the production of artificial respiration were conducted on the same lines as ours and the same difficulties were encountered; there was, however, one great and fundamental difference in the mode of procedure—the committee introduced the tube directly into the trachea instead of into the nares as we had done. It is true that by this procedure they avoided the many accidents that might interfere with the amount of air respired, but they lost the great advantage of the knowledge which we had gained in our experiments. Later, however, they were driven to investigate the questions of difficulties which might arise in the pharynx and they entirely confirmed in every detail the force of our assertions that obstructions do occur, and the report goes on to say[4]: "As regards the position of the tongue and its influence in impeding the entrance of air it was found that in the dead body this organ is apt to offer great obstruction to inspiration by falling back into the pharynx and closing the laryngeal aperture."

The committee confirmed, as you see, in every detail the results of our experiments and of those of Dr. Silvester. We were all in accord up to a certain point, but the committee went further and again demonstrated that which we in our experiments had taken for granted—viz., that in drowning we are not dealing with healthy lungs but with lungs, as the chairman repeated, "choked with frothy fluid, and that fluid more or less bloody." These were the words of the chairman, and Dr Edward Smith, so THE LANCET[5] said, adverted to the importance of the quantity of bloody water found in the lungs of the dogs drowned and explained that the water would be introduced from the bronchi into the blood-vessels by endosmosis, and this would cause swelling and bursting of the blood corpuscles after the circulation had been greatly retarded or arrested and would also cause rupture of the capillaries, or the attenuated blood would pass through the walls by exosmosis and thus appear in the bronchi. Further on he said "it had been shown by the report that in a case of phthisis where the lung capacity was greatly reduced the effect of the two methods [the Marshall Hall and the Silvester] was precisely the same. Such would also probably be the case with drowned persons in whom the lungs were full of water, which offered a great obstacle to the introduction of air, and in this condition the committee had not made any experiments. It was in reference to the practical object in the appointment of the committee that the report failed The committee had not proved that any one of their inquiries was applicable to the drowned human subject. The time during which a man could be immersed in water and recover could not be proved by experiments on dogs, and the committee themselves had shown that all their plans for the restoration of drowned dogs had failed. The committee had, in one part of the report, disclaimed any intention to say how far the Silvester method was fitted for the restoration of the drowned; and yet in their recommendations they advise the use of this method almost exclusively, without having in any experiment tried it under these conditions—i.e., on man. The recommendation to place the body prone and allow fluid to run out of the mouth was an old recommendation, but they had *inferred* and not *proved* its value, and that only from experiments on drowned dogs which they could not resuscitate. The experiments on dogs had shown that neither cold nor hot water alone had any value as restorative agents but that the alternative of the two was somewhat useful, but this alternative had not been recommended for man. Hence he (Dr. Smith) regarded this report as but the commencement of the inquiry, a labour which had elicited important facts fitted to be employed in further researches, but as to the great object in view in the appointment of the committee—the scientific determination of the best method for restoring drowned men—he thought that it altogether failed. He urged the importance of the same gentlemen continuing the inquiry and of making experiments under the conditions in which the knowledge must be applied—viz., upon men after immersion. He thought that the results of the present inquiry proved that for the observation of defined facts with known methods of inquiry, or with slight modifications of known methods, the appointment of committees would ensure the work being done at a given time and with authority, provided the names of the observers were appended to each observation; but for the solution of complex questions (as all questions of practice are) committees would fail, since the essence of such an inquiry is the invention of a new method, and new methods can never be devised to order, but only through long-continued thought without the investigator being commonly able to trace the steps which led him to the result. Hence the last series of questions must always be solved as heretofore by individuals, and that not in any particular country, age, or time, but when the happy idea has occurred to an inquirer. Such he believed to be the experience of those who who had been extensively engaged in scientific research. He attached great value to the facts contained in the report."

---

[2] THE LANCET, July 12th, 1862 p. 37.

[3] Transactions of the Royal Medical and Chirurgical Society, vol. xlv, p. 459-461.

[4] Ibid., vol. xlv, p. 490

[5] THE LANCET, July 12th, 1862, p. 39

With these remarks I entirely agree and, from having lived many years at a seaside town and having been favoured with the cordial support of the coastguard officers and my medical colleagues in my own town and others on the east coast I have had several opportunities of observing and treating cases of drowning in the human subject, have tested the value of many questions under discussion, and have brought to a more definite issue the original object of *our* work, of Dr. Silvester's, and of that of the Royal Medical and Chirurgical Society. The more practical part of the subject I propose to deal with in my next lecture.

ON THE AGGLUTINATING PROPERTY OF BLOOD SERUM IN CASES OF PLAGUE.

By D. LOUIS CAIRNS, M.B. Glasg.,
RESIDENT ASSISTANT PHYSICIAN, CITY OF GLASGOW FEVER HOSPITAL, BELVIDERE.

The number of observations which have been made up to this time on the agglutinative power of serum from patients in the course of, or during convalescence from, an attack of bubonic plague is comparatively limited. This is all the more remarkable when one considers the numerous opportunities which have occurred during the last five or six years for such observations. The literature also bearing on the subject is not at present of such extent or completeness as to furnish a basis for inferences of practical value. The earliest reference to this part of the subject which I have been able to find is contained in the report of the German Commission sent to Bombay for the investigation of plague. In their abstracted report, published in the *Deutsche Medicinische Wochenschrift* for 1897, the existence is announced of a definite reaction between the serum of man and animals infected with plague and an emulsion of the specific bacillus. The reaction consists in the precipitation of the bacilli in the form of small distinct floccules when such serum is added to a test tube containing an emulsion of plague bacilli. The report also states that no such precipitation of other organisms by plague serum occurs, the emulsion of these remaining uniformly turbid. The report of the commission, however, makes no mention of the value of the reaction either as a diagnostic or prognostic agent in this disease, and suggests merely that the specificity of the reaction may constitute a reliable method for the identification of the plague bacillus and its differentiation from other organisms closely resembling it. About the same time Paltauf[1] established the existence of the reaction in the blood of animals (guinea-pigs and horses) which had succumbed to inoculations of dead plague cultures. A very slight degree of dilution of the blood, however (from 1 to 5 or even 1 to 1), was employed—a fact which tends to diminish the value of the observations. Considerably greater practical importance attaches to the results obtained by Wyssokowitz and Zabolotny.[2] These authors state that the agglutinative power is not manifest during the earliest and most acute stage of the disease. It first appears in the blood about the seventh day of illness, gradually increases up till the fourth week, and declines after this period. In cases fatal during the first week of illness they found it absent.

A short *résumé* of the results obtained independently by Professor Zabolotny during the epidemic at Bombay in 1897 appeared in the *Deutsche Medicinische Wochenschrift* for the same year,[3] and though no details are given the conclusions to which he has been led substantially agree with those of the last-mentioned observers. In a subsequent paper[4] the method employed for demonstrating the reaction is stated, and from a comparatively large number of single observations the probable curve of the agglutination wave is constructed. I desire here to acknowledge my indebtedness to Professor Zabolotny, to whom, during his stay in Glasgow, I owed several valuable suggestions in the carrying out of my work on this subject. Dr. Leumann of the Bombay Plague Laboratory has also made a considerable number of single observations on the bactericidal and agglutinative properties of plague serum, and while the technique adopted was sufficient for the demonstration of the former property and for rough estimations of the latter, it was evidently quite impossible to obtain reliable comparative data by this method. One or two loopfuls of an agar culture were simply suspended in sterile water and serum was added drop by drop till precipitation of the microbes occurred. No attempt was made to estimate the relative proportions of serum and emulsion, and, as will be shown later, the *sine quâ non* of all agglutinative experiments—viz., a perfectly homogeneous emulsion—cannot be obtained by this method. A short paper by Dr. E. Klein[5] completes the list of those which I have hitherto been able to consult. In it he mentions the difficulty and emphasises the importance of obtaining a perfectly homogeneous distribution of the bacilli in the emulsion to be used. (This is referred to in a later part of the present paper.) The extensive report of the Austrian Commission contains, so far as I am aware, no reference to this aspect of the subject, and the comparatively short paragraph devoted to it in the exhaustive work of the late Dr. Müller of Vienna[6] is indicative of the necessity for extending our observations on the subject.

The recent outbreak of bubonic plague in Glasgow provided an opportunity of furnishing an additional contribution on the character and significance of the agglutinative phenomenon in this disease. It has been my desire to gauge as accurately as possible the degree of completeness of the reaction at several stages of the disease in the same individual, so that a basis for the estimation of its value at any particular period may be established. The following record contains particulars of 24 cases examined with this specially in view, and considerably over 300 agglutination tests have been performed to furnish the strictly comparable data. The fact that the entire series of observations was made by myself is mentioned only to indicate that the standard of comparison by naked-eye examination of all the reactions has been practically uniform throughout.

---

[1] Wiener Klinische Wochenschrift, 1897, p. 537; also La Semaine Médicale, June 2nd, 1897.

[2] Archives Russes de Pathologie, May, 1897. Recherches sur la Peste Bubonique, Annales de l'Institut Pasteur, No. 8, p. 663, 1897.

[3] Über agglutinirende Eigenschaften des Menschenblutserums bei der Pest, Deutsche Medicinische Wochenschrift, 1897, No. 24, p. 392.

[4] Recherches sur la Peste, Zabolotny, Archives des Sciences Biologiques, April, 1900, T. viii., No. 1.

[5] The Lancet, Feb. 16th, 1901, p. 456.

[6] Die Pest von Müller und Pöch, 1900.

Unfortunately, many of the earlier agglutinative experiments performed with plague serum in this research were rendered of comparatively little value owing to the fact that a mode of procedure was adopted similar in all respects to that now in common use for obtaining the agglutinative reaction in enteric fever. The method adopted for the latter purpose becomes inapplicable to plague because the specific bacillus, unlike that of enteric fever, does not produce in peptone bouillon a homogeneous turbidity during growth, but tends to cohere either in the form of strands of varying lengths ("stalactites") or as minute floccules which are aggregated mainly on the sides and bottom of the tube, and to a lesser extent occur throughout the fluid medium. It was found impossible by means of prolonged agitation of such a culture to produce a homogeneous suspension of the bacilli. After such treatment, the micro-organisms were found to settle at the bottom of the tube in the form of a loose powdery deposit, and on microscopical examination clumps of minute size were found throughout the supernatant fluid. The most important condition for the performance of a trustworthy series of experiments in agglutination or sedimentation—viz., an absolutely homogeneous emulsion of the young organism—is therefore, in the case of bacillus pestis, unobtainable with peptone bouillon. The cohesion of the bacilli during growth in bouillon (possibly related to the development of an adhesive agent connected with the capsules of the organisms by which zooglœa-like masses are formed) is also exhibited during growth on the surface of agar-agar. If the surface of such a culture of 24 hours' incubator growth be touched with a platinum loop its slimy consistence becomes at once apparent, and while the needle is being removed a fine gelatinous thread is drawn out from the growth on the tip of the wire. This becomes a more marked feature in slightly older cultures. The difficulty in obtaining such an emulsion of plague bacilli was one which entailed a considerable amount of experimental work. It was ultimately found that a homogeneous emulsion could be obtained in sterile 0 75 per cent salt solution. It is noteworthy that Dr. Klein, whose paper on the subject has recently appeared, has solved the same difficulty after trial of various expedients in an almost precisely similar manner. This method yields a perfectly homogeneous and workable emulsion which remains practically unchanged for 24 hours, showing no signs of clarification in the upper portion of the fluid and no great tendency to the deposition of micro-organisms at the foot of the tube. A drop of this fluid examined under the microscope shows the bacilli perfectly free and isolated from each other, and, if carefully prepared, ought to be entirely free from any clump-formations.

The following was found the most suitable method of preparing the emulsion, which, in view of the necessity of obtaining reliable comparative results in each case, was required in considerable quantities. Several sloped agar tubes, which had been inoculated from a 24 hours' culture of bacillus pestis, were incubated for from 24 to 36 hours. Cultures which showed the presence of involution forms in considerable numbers, or which had been incubated for longer periods than 48 hours, were not (and should not be) used for this purpose. The tubes were then filled with sufficient 0 75 per cent. sterilised salt solution to cover the solid medium. The growth was then as far as possible transferred to the salt solution. This was carried out most efficiently and without tearing the surface of the agar in the process by rubbing the growth with the rounded extremity of a sterile Pasteur pipette the end of which had been previously curved in the form of a shepherd's crook. The various emulsions so prepared were then decanted into a large sterilised test tube which was set aside for a short time to allow any cohering masses which might be present to settle. If the growth had been very luxuriant a more sensitive emulsion was usually obtained by diluting still further with salt solution. The exact degree of dilution with salt solution is undoubtedly a matter of some importance and can only be determined after considerable experience in agglutinative work. As a matter of frequent observation it may be stated that too concentrated emulsions are agglutinated very slowly and often very imperfectly. In the following series of observations the emulsions were all prepared from the same stock cultures, incubated for approximately the same length of time, and as far as possible grown under exactly similar conditions. It need hardly be added that the cultures used responded to all the recognised tests for the complete identification of the bacillus pestis. Inoculation of animals with these cultures reproduced the disease with its characteristic lesions and after death the specific bacillus was recovered from the blood or organs.

In performing experiments on agglutination two chief methods are recognised: (1) the microscopical and (2) the macroscopical or sedimentation method. The result of a considerable number of comparative trials of both methods indicated that on the whole the latter yielded more reliable data. By means of the microscopical method, however, pronounced and in every way characteristic reactions can be demonstrated in much higher dilutions than by the latter technique, but data so obtained are frequently vitiated by the occurrence at times of puzzling and apparently unaccountable pseudo-reactions. Consequently, though the potency of a given serum was estimated in most instances by both methods, only the sedimentation test was adopted throughout this series of observations as the standard for performing comparative quantitative estimations, and no serum was regarded as yielding a positive result which failed to give a satisfactory reaction by this method. The reactions were carried out with serum separated directly from blood collected in sterilised Pasteur pipettes, care being taken in every possible way to avoid its contamination. By so doing the possible introduction of a fallacious factor in the means used for obtaining serum by a blister was avoided. The amount of time absorbed in the careful separation of serum directly from blood necessarily limited the number of observations made. It may be stated, however, that no visible difference either in the degree of the reaction or in the time within which it made its appearance could be detected in several instances where serum separated from blood and that obtained from a blister were used from the same case and at the same date for purposes of comparison.

Before undertaking a consecutive series of observations it is well to prepare beforehand all necessary apparatus so that no delay may take place at any stage which might interfere with or vitiate the comparative value of individual reactions. Accordingly it was found advisable to have in readiness a supply of ordinary Pasteur pipettes about 30 centimetres in length and an equal number of a slightly modified pattern. The latter were provided with a capillary portion of a length equal to the distance between the open extremity of the ordinary Pasteur pipette and the commencement of its capillary portion; in addition, a constriction or neck was fashioned on the upper end of the tube about three quarters of an inch below the level of the cotton plug. Blood is most conveniently obtained from puncture of a finger, the skin being first rendered sterile according to recognised methods. All traces of antiseptics having been removed by a final washing with spirit the finger is carefully dried with aseptic gauze and the pulp punctured with a sterilised bayonet-pointed needle. The drop of blood which exudes is immediately aspirated into a sterilised Pasteur pipette the sealed extremity being first passed through a flame and then snapped across at a suitable level by means of sterilised forceps. By "massaging" the finger from above downwards and aspirating each drop as soon as it appears, a quantity sufficient not only for the immediate performance of the reaction, but also for purposes of comparison subsequently, can usually be obtained. In this way from half to one cubic centimetre of blood may be furnished by a single successful puncture. During aspiration care should be taken to avoid the introduction of any air bubbles, as these interfere to some extent with the formation of a firm coagulum and a resulting clear serum. The fine extremity of the tube is then sealed by drawing it out in a spirit flame, unnecessary heating of the contents being carefully avoided. The pipette is kept in an upright position and set aside in a cool place for several hours pending the separation of the serum. If no air has been introduced a firm coagulum usually forms at once and may be seen floating in the centre of the tube surrounded by a perfectly clear serum. If, however, during the process of aspiration the blood has been more or less churned up with air, then it is better to set the tube aside for from 12 to 18 hours. The resulting serum in this case is apt to contain a considerable number of red corpuscles, and though these in no way interfere with the satisfactory performance of the reaction a clearer serum is obtained if time be allowed for the sedimentation of the red corpuscles. The separation of the serum from the coagulum is effected by means of the modified pipettes. The cotton-wool plug being removed from the tube containing the blood, the sealed extremity of a modified pipette is first snapped across with sterilised forceps, the capillary portion introduced into the former and carried down to the conical narrowing of the tube. The clear serum is then aspirated into the second tube and the capillary portion sealed at a suitable level by drawing out in a flame. Before doing so, however, the precaution should be observed of aspirating all the fluid into the body of the tube so as to avoid any undue heating of the serum. If the preservation of the serum for any length of time is desired the pipette may easily be converted into a hermetically sealed capsule by drawing out the constricted portion in a Bunsen flame. On account of the difficulty of preparing two emulsions of exactly the same density it is always better to subject at one time as large a number of sera as possible to the influence of a single emulsion. For the same reason when performing quantitative estimations it is absolutely necessary to compare the agglutinating power of the serum under observation with that obtained at a previous date, the potency of which has already been ascertained by repeated experiment. Only by so doing is it possible to establish an arbitrary standard and so gain an accurate conception as to the quantitative value of individual reactions. When results materially disagreed with previous observations the data so obtained were disregarded and the series of reactions again observed with a fresh emulsion.

The reaction is conveniently performed in test tubes about nine centimetres in length prepared from ordinary soft-glass tubing of about 0·7 centimetre internal diameter. These are thoroughly cleansed and dried, the open extremity being closed with a plug of cotton-wool. After sterilisation at a temperature of 160°C. for an hour they are ready for use. In all cases the reaction was carried out in at least three dilutions, and in many instances with sera possessing a high degree of potency in five dilutions. The proportions adopted throughout have been: 1 in 10, 1 in 25, 1 in 50, 1 in 75, and 1 in 100 In no case has an undoubted reaction been obtained in a dilution higher than 1 in 75, and reactions lower than 1 in 10 have not been recorded, as the necessarily large relative dilution of serum with the emulsion in such preparations yields a practically clear fluid in which the determination by the naked eye of any agglutination becomes a matter of extreme difficulty.

The reaction is conveniently performed as follows. A long Pasteur pipette is taken and its capillary portion snapped across at a level corresponding in diameter with that of the capillary portion of the pipette containing the serum under examination. It is thus ensured that drops issuing from the orifices of these two pipettes will have as nearly as possible the same volume, and in this way any required dilution of serum with emulsion can be readily performed. The Pasteur pipette, the wider portion of which is guarded by two cotton-wool stoppers to prevent possible accidents during inspiration, is filled with the bacillary emulsion. A drop of serum having been introduced into each of a series of sedimentation tubes the emulsion of bacilli is added to each drop by drop to produce the requisite degree of dilution. The serum and emulsion are thoroughly mixed and the cotton-wool stopper is replaced in the sedimentation tube. It is convenient to place vertically in a small deep box the requisite number (from three to five) of sedimentation tubes for each serum under investigation. This obviates the necessity of labeling each tube and at the same time prevents confusion. The degree of dilution can then be readily inferred from the volume of fluid in each tube. When completed the whole series is set aside in a cool chamber for from 18 to 24 hours. As control experiments in each series two or more tubes containing (1) a quantity of the bacillary emulsion and (2) emulsion + normal serum in corresponding dilutions were employed If at the end of 24 hours any degree of sedimentation had taken place in these latter the data obtained from this series were not recorded. Under ordinary circumstances, however, no changes were observed in the control tubes, whilst in the case of those containing serum from a convalescent plague patient a remarkable alteration became apparent after a variable interval of time and according to the potency of the serum. The emulsion was seen to clarify from above downwards till practically the entire column of fluid became absolutely clear. This change was due to the precipitation of bacilli to the lower part of the tube, where they form a loose flocculent deposit. On examining this bacillary deposit under the microscope it was observed that the capsules of the organisms had become indistinct. In the case of powerfully agglutinative sera the process may be observed to commence after one or two hours, but as a rule the reaction is rarely completed till 24 hours have elapsed. Consequently the latter has been adopted as the uniform time limit throughout this series of investigations. In high dilutions or when dealing with sera of feeble agglutinative power the reaction, as might be expected, is less complete. Comparison with the control tubes, however, show that while a certain degree of clarification and precipitation has occurred at the end of 24 hours the process has stopped short of completion, leaving a slightly opalescent appearance in the tube. In the following tables such reactions are indicated by the sign +f (feeble), as the precipitated microbes showed the same microscopical changes as in complete reactions. A complete reaction is indicated by the positive sign + whilst the negative sign – indicates that no reaction has taken place. In the case of powerfully agglutinative sera, when clarification of the emulsion occurs soon after performing the dilution (from one to two hours), the double sign + + has been used.

The following tables represent in a condensed form the result of over 300 separate agglutination tests of the serum taken at different stages of the illness from 25 plague patients. The reports of many of these cases have already appeared in this journal, and as the remaining cases of interest will be published shortly detailed clinical histories have been purposely omitted in this paper. It has been deemed advisable, however, to add short clinical *résumés* of those mild cases in which bacteriological confirmation of the diagnosis was not available. The cases examined were all of the bubonic type, and of these nine received at one time or other varying doses, either subcutaneously or intravenously, of Yersin's anti-plague serum. The agglutinative reactions in these cases, however, were probably not modified to any considerable extent by the previous administration of the serum for curative purposes. In support of this it may be here remarked that the blood serum of individuals who had received one or more prophylactic doses of this serum showed no evidence whatever of agglutinating power. It is therefore highly improbable that the data so obtained have been vitiated in the slightest degree, as even the remedy itself when mixed with a highly sensitive emulsion fails to produce any visible change after the lapse of 24 hours. With the view of ascertaining the possible effect of a mixed infection on the agglutinative reaction I undertook a complete bacteriological examination of most of the organs in fatal cases of plague. These results are appended in Table I. Reference to the cases in Table II. shows that the presence of micro-organisms other than the bacillus pestis in the blood or organs of a patient dead from bubonic plague does not prevent the development of the specific reaction.

For purposes of classification the cases have been arranged in the following groups.

Table II. shows the results obtained from six fatal cases, in all of which the presence of the bacillus pestis was verified by reproducing the disease with its characteristic lesions in animals. Cultures of the specific bacillus were obtained during life, either from the bubo or blood of the patient, or post mortem from the various organs. These were either injected subcutaneously or a small quantity of an agar growth placed in the nasal cavity of an animal and the bacillus again recovered from the tissues after its death. In this group of cases the reaction was also demonstrated with other body fluids—viz., pleural effusion, pericardial effusion, peritoneal fluid, and bile. With respect to the first three of these it will be observed that, in comparison with blood serum a relatively high degree of agglutination has been noted in the only three cases in which it was possible to perform the test with these morbid exudations.

Table III. comprises those severe cases terminating in recovery, from all of which the bacillus pestis was obtained by puncturing the bubo. A sterilised hypodermic syringe was inserted into the glandular swelling and from the serous fluid withdrawn the specific organism was demonstrated on direct microscopical examination of smear preparations. Culturally the organism isolated from each case responded to all the recognised tests for the identification of Yersin's bacillus, and, as in the first group of cases, was further verified by the biological test. In the case of Mrs. M. it was thought unnecessary to perform a bacteriological examination of the bubo, as the patient's daughter (Mrs. M.), granddaughter (baby M.), and son (Robert M., see Table II.), all died from bubonic plague.

Table IV. comprises those comparatively mild cases of plague with characteristic bubo. From the first three of these the specific organism was isolated and identified as above, but only in the case of Mrs. G. was the proof completed by animal inoculation. In the last three cases (James C., Rosina M., and Dennis T.) it was found impossible to cultivate the organism either from the juice obtained by puncture of the glands, or at a later stage when the bubo

TABLE I.—RESULT OF BACTERIOLOGICAL EXAMINATION OF ORGANS IN FATAL CASES OF PLAGUE.

Name.	Date of sickening.	Bacteriological examination during life.	Bubo.	Spleen.	Blood of heart.	Lungs.	Liver.	Other tissues.
Mrs M., aged 20 years, admitted Sept. 15th; died Sept. 16th.	Sept. 13th.	Bubo: bacillus pestis (pure culture) Blood: bacillus pestis (pure culture).	(1) Bacillus pestis (almost pure culture); and (2) bacillus coli communis (scanty).	(1) Bacillus pestis (scanty); and (2) bacillus coli communis (abundant).	Bacillus pestis (pure culture)	(1) Bacillus pestis, (2) diplococcus (Friedlander's); and (3) bacillus catarrhalis.	—	Retro-peritoneal glands: bacillus pestis (pure culture).
Baby M; born Sept. 16th, died Sept. 27th.	Sept. 24th.	Not undertaken.	(1) Bacillus pestis; and (2) bacillus coli communis.	(1) Bacillus pestis; and (2) bacillus coli communis.	(1) Bacillus pestis, and (2) bacillus coli communis.	(1) Bacillus pestis; and (2) bacillus coli communis.	(1) Bacillus pestis; and (2) bacillus coli communis.	—
Mary G, aged 6 years, admitted Sept. 19th, died Sept 25th.	Sept. 18th.	Bubo: bacillus pestis (pure culture) Blood: sterile (7 daily consecutive examinations)	—	Post-mortem examination refused.			—	—
James H.; admitted Sept. 12th; died Sept. 13th.	—	Not undertaken	(1) Bacillus pestis; (2) streptococcus; and (3) large diplococcus	(1) Bacillus pestis; and (2) streptococcus.	(1) Bacillus pestis, and (2) streptococcus	—	(1) Bacillus pestis; and (2) streptococcus.	Kidneys: (1) bacillus pestis; (2) streptococcus, and (3) large bacillus.
James B., aged 60 years; admitted August 28th; died Sept. 24th.	August 12th.	Bubo: bacillus pestis (pure culture) Blood: sterile.	(1) Bacillus pestis (scanty); and (2) chiefly a small putrefactive bacillus	(1) Bacillus pestis (scanty), and (2) staphylococcus pyogenes albus.	—	—	—	—
Robert M., aged 12 years; admitted Sept. 16th; died Sept. 28th.	Sept. 14th.	Blood: sterile. Bubo: staphylococcus pyogenes aureus, Sept. 25th.	(1) Bacillus pestis (scanty), and (2) staphylococcus pyogenes aureus (abundant).	(1) Bacillus pestis (abundant); (2) staphylococcus [illegible]	(1) Bacillus pestis (scanty), (2) staphylococcus pyo- [illegible]	(1) Bacillus pestis; (2) staphylococcus pyogenes aureus; and [illegible]	—	Urine: sterile. Peritoneal fluid: sterile. Mediastinal abscess: (1) bacillus pestis; (2) staphylococcus pyogenes aureus; and (3) bacillus coli communis.
William W., aged 48 years; admitted Sept. 20th; died Oct. 6th.	About August 24th.	Bubo: (1) degenerated plague bacilli; (2) staphylococcus pyogenes aureus, and (3) staphylococcus pyogenes albus.	(1) Staphylococcus pyogenes albus; (2) streptococcus; and (3) large diplococcus	(1) Staphylococcus pyogenes albus; (2) bacillus pestis, and (3) bacillus coli communis.	—	—	(1) Bacillus pestis; and (2) bacillus coli communis.	—

TABLE II.—FATAL CASES.

Name.	Age.	Day of illness on admission.	Date of examination of serum, &c.	Nature of fluid examination.	Result of bacteriological examination	Result of animal inoculation.	Dilution of serum with emulsion of bacillus pestis in proportions of—		
							1 in 10	1 in 25	1 in 60
Mrs. M*	20	Third day.	Fifth day.	Blood, post mortem.	+	+	-	-	-
Baby M.	7 days.	—	Seventh day.	Blood, post mortem. Pleural effusion	+	+	+ +	- +	- -
Mary G.†	6	Second day.	Fourth day. Seventh day.	Blood serum. Blood, post mortem. Pleural effusion.	+	+	+ f + +	- - + f	- - -
Robert M.‡	12	Third day	Twelfth day.	Blood, post mortem Pericardial effusion. Peritoneal effusion	+	+	+ + +	- + +	- - -
James B.	60	Fourteenth day.	Sixth week.	Blood, post mortem.	+	+	+ +	+	-
William W.	48	Fourth week.	Sixth week	Blood, post mortem Bile, post mortem.	+	+	+ +	+ f + f	- -

* 60 c.c. of serum (Yersin) were injected. † 100 c.c. of serum (Yersin) were injected ‡ 60 c.c. of serum (Yersin) were injected.

had broken down from the sero-purulent discharges. The failure to obtain the bacillus in these cases was no doubt due to the comparatively late stage of the illness at which the patients first came under observation. As the disease ran an exactly similar course, however, to those from which the specific organism had been recovered, and as in each instance the serum possessed marked agglutinative power, there appears to be every possible reason to regard them as undoubted though mild cases of plague. The following synopsis of the clinical features of these cases reveals their character sufficiently.

Dennis T., aged five years. This patient was admitted on the eighth day of illness with a glandular swelling in the right inguinal region which presented the characteristic appearance of a plague bubo in the stage of resolution. The enlargement was limited to the vertical set of glands, the skin over and around it being inflamed and exceedingly tender. The patient, though not acutely ill, was drowsy and showed a lack of interest in his surroundings. Examination of the heart and lungs revealed nothing noteworthy. The admission temperature of 100 4° F. was never exceeded and a few days later the patient seemed quite well, though the bubo, while less tender, showed no signs of resolution. On the sixteenth day of illness spontaneous rupture of the bubo took place, convalescence thereafter being rapid and complete. Cultures from the bubo, made as above described, proved sterile, though smear preparations showed the presence of numerous degenerated bacilli. No doubt, however, can be entertained as to the nature of this patient's illness both on account of the association and the clinical appearances. The patient's grandfather (James B., Table II.) died from plague, and his mother (Mrs. T., Table III.) passed through a very severe attack of this disease. The identity of the isolated organisms in both these latter cases was verified by animal experimentation.

James C., aged 24 years. This patient was admitted to hospital on August 30th, 1900. He slept for a single night on August 13th in a room on the same landing as several of the other plague patients, though his usual place of residence was at a considerable distance from the plague infected area. On August 16th he was seized with an illness, evidently of considerable severity, associated with headache, sickness and vomiting, and pain in the left inguinal region. The report received from the medical attendant, Dr. G., is as follows. On August 17th the temperature was 103° F. and the pulse 102. There was severe headache with vomiting. The patient complained of pain in the left inguinal region where there were some redness and swelling. On the 21st the temperature was 102 6°, the pulse 98, while the swelling had increased in size and was still painful. On the 24th the temperature was 100 and the pulse 90. The swelling was sausage-shaped and lay along the upper border of Poupart's ligament; it was fairly hard and pitted on pressure. On admission the patient was evidently convalescent, no sign of illness being present. The temperature was normal. On examination of the left groin, however, a swelling rather larger than a pigeon's egg was discovered immediately above Poupart's ligament and evidently involving the horizontal set of glands. The overlying skin was inflamed and slightly œdematous and fluctuation could be easily obtained A hypodermic needle inserted into the glandular swelling withdrew a quantity of dark grumous fluid which, on microscopical examination, showed the presence of numerous degenerated bacilli; and though a considerable number of agar tubes were inoculated on two separate occasions no growth whatever could be obtained. Convalescence was uninterrupted, the bubo disappearing by absorption.

Rosina M. was admitted from the plague-infected area in her third week of illness. At this date all clamant symptoms had subsided, but examination of the inguinal region on each side showed the presence of a bilateral bubonic condition involving the group of glands situated immediately above Poupart's ligament. Each bubo was about the size of a large walnut, that on the left side being comparatively firm and painless, whilst in the other fluctuation could be easily detected. On both sides the overlying skin was inflamed and adherent to the glands beneath. The history of the illness obtained from various sources showed that the onset was sudden and acute and was characterised by high fever (temperature 104° F.), accompanied by rigors and delirium; headache, sickness, and vomiting were also present and continued for some time after the appearance of the buboes which were discovered by the patient herself on the third day of illness. These were apparently exceedingly painful at this stage. They rapidly increased in size during the succeeding two or three days, after which the tenderness slowly subsided. The bubo in right groin ruptured spontaneously in the fourth week of illness, discharging a sero-purulent fluid for about 10 days, whilst that on the left side underwent resolution without rupture. Both buboes were explored with a hypodermic needle as in previous cases and culture tubes inoculated with the aspirated fluid remained sterile. At a later date the subcutaneous injection of a mouse with the discharges from the right bubo was unattended by any serious disturbance in the animal's health.

The remaining cases grouped in Table V. may be regarded, both from the etiological and clinical standpoint, as fairly typical examples of *pestis ambulans*. In all the illness was apparently so slight that, apart from a definite history of contact with infected persons and in the absence of a bacteriological examination, it would have been quite impossible to pronounce upon the exact nature of the glandular affection. The general course and symptomatology of such cases has already been described in a previous article and it will therefore be sufficient here to indicate briefly the salient points of each case.

Of these the most interesting is the case of a ward-maid in one of the pavilions set apart for the isolation and treatment of plague patients. Ten days prior to the commencement of her illness she had received a prophylactic injection of 10 cubic centimetres of Yersin's serum. The illness, however, was of a comparatively trifling nature, the patient only complaining of a moderate degree of indisposition for about three days. Bacteriological examination, however, demonstrated the presence of the plague bacillus in an exceedingly small cervical bubo. The serum taken during the third week of illness agglutinated an emulsion of plague bacilli in a dilution of 1 in 25 though the constitutional disturbance was so slight that the temperature and pulse throughout the illness never rose above normal.

Agnes R., aged three and a half years. This patient was a "contact" from the Molloy wake—one of the first discovered foci of infection. The illness, of sudden onset, was accompanied by headache, sickness, and vomiting, and pain in the left axilla Examination of this region showed the presence of a small bubo, but an exploratory puncture failed to withdraw any lymphatic gland fluid. The temperature rose to 101° F. on the first day of illness and subsided to normal two days later. Convalescence was rapid and complete.

The cases of Archibald D. and William M. are fully reported in THE LANCET of Sept. 22nd and Sept. 15th, 1900.

In the remaining three cases the sudden appearance of bubo (axillary in one case, cervical in the others) was associated with symptoms of fairly acute onset, similar in all respects to those already described. In these, however, a bacteriological examination was not undertaken, but the peculiar nature of the illness, taken in conjunction with a very definite history of exposure to infection, seems sufficient to warrant these cases also being regarded as examples of the mildest variety of this disease. It may here be added that the serum of patients suffering from various forms of specific infectious disease and taken at various stages of their illness was examined in different degrees of dilution with an emulsion of bacillus pestis. In no case was any reaction observed. The diagnostic value of its appearance, therefore, in cases associated with slight glandular enlargement is to this extent enhanced.

The following deductions appear fully warranted from an examination of the accompanying tables. 1. During the early days of the disease the reaction is not manifested and consequently in rapidly fatal cases is probably never obtained. 2. Agglutinating properties first appear in the blood towards the close of the first week of illness (dilution of 1 in 10). These gradually increase in intensity up to the sixth week of illness and are sometimes maintained at a high level as late as the eighth week. After this date, however, in the majority of cases a gradual decline in the agglutinative power of the serum becomes apparent. The rates of increase and decrease of the reaction, generally speaking, are approximately equal; occasionally, however, the reaction wanes and disappears in a shorter period than that occupied between its appearance and point of maximum intensity. 3. In very severe cases ultimately proving fatal the reaction though present never reaches a high degree of intensity. In cases

TABLE III.—SEVERE CASES ENDING IN RECOVERY.

Name.	Age.	Date of illness on admission.	Date of serum examination.	Result of bacteriological examination.	Result of animal inoculation.	Dilution of serum with emulsion of bacillus pestis in proportions of—				
						1 in 10	1 in 25	1 in 50	1 in 75	1 in 100
Pat. F.	56	Second week.	Seventh week.	+	+	+ +	+	+	-	
			Twelfth week.			+ +	+	-	-	
Mrs. M.	40	Sixth day.	Third week.	+	+	+	-	-		
			Sixth week.			+ +	+ +	+ +	+ ?	-
			Ninth week.			+	+	+	-	-
			Twelfth week.			+	+ ?	-	-	
Mrs. T.	40	Thirteenth day.	Third week.	+	+	+ +	+	-	-	
			Eighth week.			+ +	+	+	+ ?	-
			Tenth week.			+	+	-	-	
			Twelfth week.			+	+	-	-	
Thomas H.*	15	Seventh day.	Fourth week.	+	+	+ +	+ +	+		
			Fifth week.			+	+	-		
			Sixth week.			+ +	+	+	+ ?	
			Eighth week.			+ +	+ +	+	+ ?	-
			Eleventh week			+ +	+ +	+	-	
			Fifth month.			+	+	-	-	
Charles M.*	27	Second day.	Sixteenth day.	+	+	+	+	-		
			Fourth week			+	+	+		
			Sixth week.			+ +	+	+	+ ?	-
			Eighth week.			+ +	+	-	-	
			Four and a half months.			+	+	-	-	
Mrs M.*...	41	Second day	Seventh day.			+	+ ?	-		
			Eighteenth day.			+	+	+	-	
			Fifth week.			+	+	+ ?		

* 40 c.c. of serum (Yersin) were injected.

TABLE IV.—MILD CASES.

Name.	Age.	Day of illness on admission.	Date of serum examination.	Amount of serum (Yersin) injected.	Result of bacteriological examination.	Result of animal inoculation	Dilution of serum with emulsion of bacillus pestis in proportions of—				
							1 in 10	1 in 25	1 in 50	1 in 75	1 in 100
Mary M	14	Second day.	Sixth day.	40 c.c.	+		+	-	-		
			Sixteenth day.				+	+	-		
			Third week.				+ +	+	+ ?	-	
			Fifth week.				+ +	+	-		
Mrs. B.	29	Second day.	Ninth day.	40 c.c.	+		+	+ ?	-		
			Eighteenth day.				+ +	+ ?	-		
			Sixth week				+	-	-		
Mrs. G	28	Second day.	Third week		+	+	+ +	+ +	+	-	-
			Fourth week.				+ +	+ +	+ +	+	-
			Sixth week.				+	+	+	-	
			Eighth week.				+	-	-		
			Four and a half months				+	-	-	-	
James O...	24	Third week.	Third week.		-	-	+	+ ?	-		
			Fifth week.				+	+	+ ?		
			Seventh week.				+	+	-		
			Ninth week.				+	+	-		
Dennis T.	6	Ninth day	Fifth week		-	-	+ +	+ +	+	-	
Rosa M.	28	Third week.	Fifth week.		-	-	+	+	-		

of almost equal severity, however, in which an early and rapid convalescence followed, the reaction was of a more marked character. 4. In the mildest forms of plague a high degree of agglutinating power is probably never attained and in some it appears to be absent. Stricker, in fact, states that the reaction never appears in this class of case, but this is undoubtedly too sweeping an assertion, as an undoubted and characteristic reaction in a dilution of 1 in 25 was obtained in two such cases. 5. The reaction, as a rule, is most marked in those severe cases characterised by an early and favourable crisis, and in such cases it disappears very slowly, having been shown to be present as late as the fifth month after the primary illness.

Other methods.—The technique just described is, however, perhaps unnecessarily complicated, as in order to avoid any possible source of fallacy a number of precautions were adopted which later experience showed to be superfluous. The initial difficulty—the preparation of a perfectly homogeneous bacillary emulsion—having been overcome, an almost precisely similar technique to that employed in the ordinary Widal reaction may be adopted. As already stated, the dilution of serum with emulsion can be carried to a much higher degree and the time-limit considerably shortened when the microscopical method is employed. By this means reactions in which the bacilli are completely agglutinated in from five to 10 minutes are fairly common with potent sera in dilutions of 1 in 10 and 1 in 25. If, however, the dilution be carried further it is absolutely necessary for trustworthy results to observe the reaction in hanging-drop preparations. In this way well-marked reactions have been obtained in dilutions of 1 in 200 with a time limit of two hours, though preparations made between an ordinary slide and cover-glass showed no evidence whatever of any agglutinative process. The time-limit may be safely extended to 24 hours if the edge of the cover-glass be sealed with vaseline. By this method a reaction can often be demonstrated with sera of feeble agglutinative power or with potent sera which have been highly diluted. As a control experiment preparations of (1) emulsion and (2) emulsion plus normal serum have been kept for over a week without any signs of undoubted agglutination supervening. Numerous observations of plague sera in progressively increasing dilutions have been made and the time-limit in each case has been carefully noted. The data so obtained may be compared with those got by the sedimentation test at corresponding periods. To illustrate this the results obtained by this method from two severe cases of plague terminating in recovery (Table III.) are exhibited in the accompanying table (Table VI.).

TABLE V.—CASES OF PESTIS AMBULANS.

Name.	Age.	Day of illness on admission.	Date of serum examination.	Result of bacterio logical examination.	Amount of serum (Yersin) injected.	Dilution of serum with emulsion of bacillus pestis in proportions of— 1 in 10.	1 in 25.	1 in 50.	1 in 75.
Nellie R.	21	Second day.	Third week.	+	10 c c.	+ f	+ f	–	–
Agnes R.	3½	First day.	Second week.	–	–	+	+	–	–
Arch. D.	18	Seventh day.	Fourth week.	–	–	+	+	–	–
William M.	3	Fifth day.	20th day.	–	–	–	–	–	–
Jeanie M.	14	Second day.	Second week.	–	–	–	–	–	–
Annie McK.	12	Second day.	Second week.	–	–	–	–	–	–
Pat. McG.	18	Second day.	Fourth week.	–	–	–	–	–	–

TABLE VI.—MICROSCOPICAL SERUM AGGLUTINATIONS.

Thomas H.

Date of serum examination.	Dilution 1 in 10.	Time.	Dilution 1 in 25.	Time.	Dilution 1 in 50.	Time.	Dilution 1 in 75.	Time.	Dilution 1 in 100.	Time.	Dilution 1 in 150.	Time.	Dilution 1 in 200.	Time.	Dilution 1 in 300.	Time.
Fifth week ...	+ +	5 mins.	+ +	10 mins.	+ +	15 mins.	+ +	30 mins.	+ +	1 hour.	+	45 mins.		—	-	—
Eighth week ...	+ +	5 mins.	+ +	10 mins.	+ +	15 mins.	+ +	20 mins.	+ +	1 hour.	+	1 hour.	+	2 hours.		—
Eleventh week	+ +	5 mins.	+ +	20 mins.	+ +	30 mins.	+ +	45 mins.	+ f	1 hour.	+	1 hour.	+	1 hour.	+ f	2 hours.
Four and a half months... ...	+ +	10 mins.	+ +	30 mins.	+	1 hour.	+ +	—	+ f	2 hours.	-	18 hours.		—		—
Charles M.																
Fourth week ...	+ +	5 mins.	+ +	10 mins.	+	1 hour.	+	2 hours.	+ f	12 hours.	-	18 hours.		—		—
Sixth week ...	+ +	5 mins	+ +	10 mins	+ +	45 mins.	+	2 hours.	+ f	2 hours.	+ f	4 hours.		—		—
Eighth week ...	+ +	5 mins.	+ +	15 mins.	+ f	2 hours.		—		—		—		—		—
Four and a half months... ...	+ +	20 mins.	+ +	30 mins.	+ f	2 hours.		—		—		—		—		—

Like results may be obtained with similarly prepared emulsions of dead plague bacilli, but in this case the reaction is not so reliable, as the dead organisms are not agglutinated so readily. When working with dead cultures, however, the microscopical is to be preferred to the sedimentation method, since it yields more trustworthy results even in higher degrees of dilution. In the absence of facilities for obtaining a homogeneous emulsion of living or dead bacilli Haffkine's prophylactic (which contains the latter) may be used to dilute a suspected plague serum. No satisfactory reaction, however, has been got by this means in a higher dilution than 1 in 25, and the sedimentation method is alone applicable owing to Haffkine's prophylactic being a bouillon culture. This last method can only be regarded as a makeshift.

Concluding remarks.—From the point of view of hygienic administration the very mild cases of plague are of the utmost importance. The analogy presented by all other infectious diseases indicates that such cases must be regarded as of equal importance with the more severe forms in the possible dissemination of the disease and constitute therefore a grave source of danger to the community. It is well known that epidemics of measles, scarlet fever, and diphtheria are frequently preceded by a type of the disease so mild that many cases are allowed to remain untreated, and it is interesting to note that several of the outbreaks of plague in the East have been heralded by the mildest possible form of the disease. Moreover, the difficulties attendant on a successful exploratory puncture of a small deep-set gland are sufficiently obvious and any other means of arriving at a definite conclusion as to the nature of an obscure glandular swelling is certainly entitled to the most careful consideration.

In the severer forms of the disease the possibilities of a serum diagnosis are much greater. It has already been shown that during the early stages of the illness the agglutinative properties of the blood are but freely developed and that unless a careful technique be adopted for its demonstration the reaction is liable to be missed altogether. After the second week of illness, however, and particularly in those cases where the bubo undergoes resolution, the chances of obtaining the bacillus by puncture of the gland diminish rapidly during convalescence. This fact is well illustrated by the last three cases in Table IV., in which attempts to cultivate the organism by this method at the end of the first, second, and third weeks of illness respectively completely failed, though numerous degenerated bacillary forms were seen in smear preparations. Indeed, in the case of Mrs. M. (Table III) culture tubes inoculated on the eighth day of illness with fluid obtained from puncture of the bubo proved sterile, though two days previously an actively growing pure culture had been obtained. On the other hand, the agglutinative power of the serum, insignificant at the commencement of the illness, progressively increases up to *the sixth or seventh week of the disease, by which time a comparatively high degree of potency has been attained*, especially in the severer forms of the disease which recover. Thereafter it begins to decline, but, as already shown, may be present in well-marked cases four or five months after the primary illness It is therefore during and subsequently to the stage of convalescence, when the possibility of a bacteriological diagnosis is more or less remote, that the diagnostic value of the reaction becomes most apparent. In all cases, moreover, associated with the presence of glandular enlargements of dubious nature, the occurrence of which from time to time during the progress of an epidemic of plague may present a diagnostic problem of perplexing character, the application of this reaction cannot fail to prove of signal service.

Glasgow.

SUGAR-FREE MILK AS A FOOD FOR DIABETICS.

BY ROBERT HUTCHISON, M.D. EDIN., M.R C P. LOND.,
ASSISTANT PHYSICIAN TO THE LONDON HOSPITAL AND TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

THE difficulty often presents itself in practice of providing a patient suffering from diabetes with a diet which, while wholly free from carbohydrate, can yet be taken without repugnance for a prolonged period of time. The essential point of such a diet is that its nutritive constituents must consist only of proteid and fat. As far as possible most of the energy which it yields must be derived from fat, for there are certain risks and disadvantages incidental to an excessive consumption of proteid. But, unfortunately, it is often difficult to persuade a diabetic to eat enough fat. Bacon he can usually manage and a certain amount of fat meat and fish, and perhaps even some salad oil, but the necessary exclusion from the diet of bread and potatoes renders it difficult *to administer even moderately large* quantities of that most easily digested of fats—butter. A little can be got down on some variety of starchless bread or in the form of sauce with fish or mixed with green vegetables, but in many cases the most that can be managed in these ways does not exceed three or four ounces daily

Now, in milk we have fat and proteid in a form in which they may be easily taken and are readily digested, while the special form of proteid present in milk (casein) has the additional advantage that it is not capable, as most proteids are, of yielding sugar in the body. Unfortunately, however, milk itself contains a carbohydrate in *considerable amount* (4 per cent), and though it may be true that in *some* cases milk sugar is better borne than most other forms of carbohydrate, yet it must be remembered that, as experiment has shown, lactose is not directly assimilated in diabetes Experience shows, too, I think, that in the majority of such patients the addition of milk to an otherwise strict diet increases the amount of sugar in the urine and coincidently with that aggravates the thirst and the other symptoms which are due *to the presence of an excess of* sugar in the blood. It is not surprising, therefore, that attempts have from time to time been made to get rid of the sugar in milk whilst retaining its other ingredients. In standard works on diabetes a description of several such sugar free milks will be found, but hitherto they have not found very general acceptance, partly, perhaps, because they are troublesome to make at home and it has not as yet been possible to buy them ready-made. I have described elsewhere[1] a sugar-free milk prepared for me by Mr. Morris, chief dispenser to the London Hospital, which has now been brought to a very high degree of perfection and which can be obtained for use at home in a sterilised form [2] This milk contains all the original casein and salts along with a certain additional proportion of fat. It is practically sugar-free and can hardly be distinguished from a rather rich specimen of ordinary milk. It can be readily administered either plain or with some effervescing water or it can be added to tea, coffee, or cocoa. It has also the advantage that it can be made into boiled or even baked custards with eggs, thus rendering it possible to add a nourishing and harmless "sweet" course to the diabetic patient's dinner. Assuming that it contains about 3 per cent. of proteid and 5 per cent. of fat and that three pints are taken in one form or another in the course of a day, the total energy yielded *will be about 990 calories or almost one-third of the total amount required, while the amount of fat which the* patient gets is equivalent to fully three ounces of butter. I have had this form of milk in constant use in hospital practice for more than a year and have found it of the greatest service It is specially useful in those cases in which it is desirable to observe as strict a diet as possible, but even in those instances in which it is decided that a limited amount of carbohydrate can be taken with advantage it will be found best to substitute sugar-free milk for ordinary milk and to give the allowable quantity of carbohydrate in the form of potatoes and bread. *This plan is not* only more satisfactory to the patient, but it has also the advantage of enabling one to administer larger quantities of butter. The scheme of a strict diet which includes the use of this milk would be something as follows:—

Breakfast—Bacon, eggs scrambled with butter; fish and butter sauce or some form of cold meat; toasted protene bread with plenty of butter, and café-au lait made with sugar-free milk and sweetened with saccharin if desired

Dinner—Soup (without vegetables or other carbohydrate containing matter), fish (preferably one of the fatter sorts); meat with green vegetables and melted butter, custard of eggs and sugar-free milk, and cheese with protene bread and watercress. Beverage: whisky and water or any dry natural wine.

Supper—A cup of well made beef tea; eggs in some form—e.g., as an omelette with as much butter as possible; fish or cold meat, and cheese with protene bread and butter and a salad with plenty of salad oil Beverage a glass of sugar-free milk.

The rest of the milk, sufficient to make the total daily allowance *up to three pints*, should be taken as a beverage between the chief meals

The above diet is, of course, merely an outline which can be modified to suit the taste of individual patients, but it will be found to answer very well in practice and is practically free from carbohydrates. I have recently had a patient on it who was passing on an ordinary diet more than 300 grammes of sugar per day and who on the above diet had an excretion of only about 25 grammes and gained weight rapidly. The attainment of this result was greatly facilitated by the use of sugar-free milk, and my object in writing this short article is to try to make the merits of the latter *more* widely known among the profession.

London Hospital

THE VALUE OF ANTITOXIN IN THE PREVENTION OF DIPHTHERIA.

BY A. E PORTER, M D., D P.H CANTAB.

IN the belief that the prophylactic administration of antitoxin is not so largely used in this country to prevent the extension of diphtheria among inmates of infected houses and institutions as its success seems to warrant, I hope that the following account of cases in which it has been employed and which have come under my notice as assistant to the medical officer of health of the County of Essex and of the combined rural districts of Chelmsford and Maldon may be of interest not only to medical officers of health, but also to those members of the profession who are engaged in general practice.

---

[1] Food and the Principles of Dietetics. London: Edward Arnold. Second edition, 1901, p 474

[2] *Prepared by Messrs Clay, Paget, and Co., 23, Ebury-street, S W.*

During the past 12 months diphtheria of a virulent type has been extremely prevalent throughout the greater part of Essex, and the Chelmsford and Maldon rural districts have suffered severely in this respect. With a view of attempting to check the epidemic the councils of the two districts have lately agreed to pay to medical practitioners a small sum for each prophylactic injection of antitoxin given with the sanction of the medical officer of health on the occurrence of a case of diphtheria in a household. Up to the present this practice has been adopted in 24 families, with the gratifying result that, with one possible exception, not a single person so injected has subsequently developed diphtheria, notwithstanding the fact that two-thirds of the cases were treated at home. In eight instances the injection was refused, and amongst these there were three subsequent cases of diphtheria. One of the houses (No 3) was a home for orphan children; all the remainder, with two exceptions, belonged to members of the labouring classes; many of them contained but two sleeping-rooms, and these frequently communicated with one another. Wherever there was any doubt as to the nature of the case a bacteriological examination was made to confirm the diagnosis. Of the 136 persons thus protected 60 were adults of 20 years of age and upwards. The remainder were children chiefly at about the school age, and swabs from the throats of many gave almost pure cultures of the diphtheria bacillus on blood serum.

The following is a tabular list of the families to whom prophylactic injections were administered :—

TABLE I.

Family.	Number of cases notified before injection was given.	Number of members in family to whom prophylactic injections were given.	Number of persons thus injected who subsequently developed diphtheria.	Number of persons to whom no injection was given.	Persons not injected who subsequently developed diphtheria.	Remarks.
No 1	1	4	0	2	2	Not removed to hospital.
,, 2	1	6	0	2	1	,, ,,
,, 3	2	17	0	2	0	,, ,,
,, 4 .	1	2	0	1	0	,, ,,
,, 5	4	1	0	—	—	,, ,,
,, 6 .	2	8	0	—	—	,, ,,
,, 7 ...	1	7	0	—	—	Removed to hospital.
,, 8	1	7	0	—	—	,, ,,
,, 9 .	1	8	0	—	—	,, ,,
,, 10 .	2	6	0	—	—	One case (only) removed to hospital.
,, 11	3	6	0	—	—	Removed to hospital.
,, 12 ..	1	9	0	—	—	Not removed to hospital.
,, 13	1	4	0	—	—	,, ,,
,, 14	1	5	0	—	—	Removed to hospital.
,, 15 ..	1	2	0	—	—	,, ,,
,, 16 ..	1	6	0	—	—	Not removed to hospital.
,, 17 ...	1	8	0	1	0	Removed to hospital.
,, 18 ..	1	7	0	—	—	Not removed to hospital.
,, 19 ..	1	3	1 (?)	—	—	,, ,,
,, 20 ..	1	3	0	—	—	,, ,,
,, 21 ..	1	3	0	—	—	,, ,,
,, 22 ...	1	4	0	—	—	,, ,,
,, 23 ...	1	5	0	—	—	,, ,,
,, 24 ..	1	5	0	—	—	,, ,,
Total	—	136	1 (?)	8	3	—

In No. 19 the mother of a child suffering from diphtheria received a prophylactic injection and in a few days suffered from sore-throat. As she was nursing the case, which was a severe one and terminated fatally in a few days, it is probable that she too caught the infection. The attack was, however, so mild that she was scarcely prevented from attending to her household duties, and she escaped notification. There was, therefore, only one failure, and that a doubtful one, out of 136 cases in which prophylactic injections were given.

For purposes of comparison I have drawn up a second table showing the number of secondary cases occurring in another series of 24 families, taken consecutively from our notification records before the prophylactic injections came into force. The number of individuals in the families is approximately the same, as is also the proportion of adults, of whom there were 53. It will be seen that in one-third of the houses secondary cases occurred and that one-sixth of the inmates contracted the infection in the absence of the prophylactic injections, in spite of the fact that a larger number of the primary cases were promptly removed to the hospital. This series of families has in no way been specially selected, and the proportion of houses in which secondary cases have occurred has practically obtained throughout the present epidemic.

TABLE II.

Family.	Number of primary cases.	Number of persons in family excluding primary cases.	Number of secondary cases.	Remarks.
No. 1 .	1	2	0	Not removed to hospital.
,, 2 ...	1	6	0	,, ,,
,, 3 ...	1	2	0	Removed to hospital.
,, 4 ..	1	4	3	,, ,,
,, 5 ..	1	7	0	Not removed to hospital.
,, 6 ...	1	6	3	,, ,,
,, 7 ...	1	5	0	Removed to hospital.
,, 8 ...	1	3	0	,, ,,
,, 9 ...	2	8	2	,, ,,
,, 10 ..	1	3	0	,, ,,
,, 11 ...	1	8	4	Not removed to hospital.
,, 12 ..	1	3	0	,, ,,
,, 13 ...	1	6	0	,, ,,
,, 14 ...	1	7	0	,, ,,
,, 15 ...	1	4	0	,, ,,
,, 16 ...	1	5	1	Removed to hospital.
,, 17 ..	1	5	1	Not removed to hospital.
,, 18 ...	1	7	1	Removed to hospital.
,, 19 ..	1	5	0	Not removed to hospital.
,, 20 ...	1	4	0	Removed to hospital.
,, 21 ..	1	4	0	,, ,,
,, 22 ...	1	9	6	,, ,,
,, 23 ...	1	7	0	Not removed to hospital.
,, 24 .	1	5	0	,, ,,
Totals ..	—	125	21	—

No doubt similar instances of the efficacy of this mode of prevention could be indefinitely multiplied. A striking example is mentioned by Mr. J. Damer Priest, medical officer of health of the Waltham Holy Cross Urban District Council, in his annual report for 1900. Three cases of diphtheria occurred at short intervals in a convalescent home for children situated in his district. The remaining 35 children were injected and there were no further cases.

In America this method of treatment is adopted on a large scale. In the city of New York, between Jan. 1st, 1895, and Jan. 1st, 1900, no less than 6806 persons who had been exposed to infection were given prophylactic doses by the officers of the Board of Health; of these 19, or less than 0·3 per cent., afterwards contracted diphtheria, and only one of them, who was suffering from a simultaneous attack of scarlet fever, died.

The success which attended the methods adopted in arresting the recent outbreak of diphtheria in the borough of Cambridge is still fresh in our memory, and the report by the medical officer of health (Dr. Bushell Anningson) is well worthy of study by all those who are interested in preventive medicine. Unfortunately, it cannot be claimed that an injection of antitoxin will prevent an attack of diphtheria with absolute certainty, but it will undoubtedly do so in a large proportion of instances, and, if diphtheria should occur, the attack will in all probability be a mild one. As to what constitutes an efficient dose authorities differ. By some 300 units are considered sufficient, whilst others inject 800 to 1000 units. Our practice in the Chelmsford and Maldon rural districts has been to give 500 units, and so far with satisfactory results. Such a dose can usually be obtained in a bulk of about 20 minims and a hypodermic syringe may therefore be used for the purpose. With 500 units it is rare to experience any serious after-effects if the injection be made in the loin or between the scapulæ. With larger doses the rash and the joint pains occasionally associated with the use of antitoxin are sometimes met with, their occurrence being due to the particular batch of serum used and possibly to individual idiosyncrasy. As a rule there is a slight rise of temperature and occasionally a feeling of malaise and nausea within 24 hours of the operation, often followed by some irritation round the seat of injection. The first three symptoms quickly pass off, the last may persist for a few days. If, however, the serum be injected into the arm sequelæ are frequent and consist chiefly of inflammation and œdema, together with stiffness of the joints and intense irritation.

It is important to bear in mind that where antitoxin is used as a prophylactic in persons who are actually harbouring the diphtheria bacillus, although the clinical symptoms may be averted, the throats are none the less infective—at all events the bacilli may, in my experience, remain for weeks. Hence such persons are still liable to become foci of infection and should be prevented from spreading the disease until sufficient time has elapsed to eliminate the danger or until they are shown by bacteriological methods to be free from infection.

As a result of my experience detailed above I believe that we possess in antitoxin a valuable means of preventing the onset of diphtheria in persons who have been exposed to infection, and that it is of especial benefit where it is impossible properly to isolate a primary case, or when the infection is introduced into an institution in which a number of susceptible individuals are congregated.

Chelmsford.

THE ROENTGEN RAYS IN SOUTH AFRICA.

BY J. HALL-EDWARDS, L.R.C.P. EDIN.,
SURGEON RADIOGRAPHER TO THE GENERAL HOSPITAL, BIRMINGHAM, AND TO THE IMPERIAL YEOMANRY HOSPITALS AT DEELFONTEIN AND PRETORIA, SOUTH AFRICA.

AN experience of 14 months as x-ray expert to the Imperial Yeomanry Hospitals at Deelfontein and Pretoria has amply proved the immense usefulness of Roentgen's discovery as applied to military surgery. On starting from England I had already formed some idea as to the extent to which my speciality might be of service, but my wildest anticipations were exceeded and my preconceived notions born of ignorance, and backed up by the officials at the War Office, have proved to be incorrect and absolutely unsatisfactory. On information received from certain pseudo-reliable sources I was convinced that so few bullets found their billets in the tissues of the wounded that an x-ray outfit would prove an incumbrance instead of a help, and although I had some hopes that my ideas might prove incorrect I entered upon my task with fear and trembling. These fears were magnified when on reaching Cape Town we were informed that Cronje had been captured and Ladysmith relieved and that the war could not last more than a few weeks. This last statement, like those received at home, was far from true, and whilst it was given in good faith, it was the child of ignorance, born in the cradle manufactured by our Intelligence Department.

I well remember remarking to an officer (on the Government landing-stage at Cape Town), who had been my companion since leaving England and who was wishing me adieu and success, "that if I could take back with me five negatives showing the presence of bullets, I should consider my visit to South Africa more than justified." It would be exceedingly difficult even to guess the percentage of retained bullets in all gunshot wounds, but there can be no doubt that it is far higher than is generally imagined, although taking into consideration the number of wounds received it must be very small. My own figures cannot, of course, be taken as any guide, inasmuch as I only radiographed cases specially sent to me for the purpose, a large majority of the cases admitted to the hospital not being of sufficient interest to warrant the taking of a radiograph. In several of these bullets which could be localised by palpation were removed without the aid of the x rays and they therefore take no part in my calculations. In all, 193 cases of gunshot or shell wounds were submitted to me and in 65 of these there were found and localised, either a whole bullet, portions of a bullet, or fragments of shell. This is, of course, an exceptionally large percentage which can only be accounted for by the assumption that many cases in which the presence of a bullet was suspected were sent to us for the purpose of having them localised. It is absolutely impossible to form any idea of the percentage of retained bullets in wounds received; neither can I satisfy myself as to the range at which most bullets are retained. Bullets which are nearly spent have, of course, the greatest chance of remaining in the tissues, but the ranges given in my notes are so various that many other circumstances must combine to diminish the penetrative power, even at distances where under ordinary conditions they would pass through the body. In previous articles on this subject I have pointed to some of these and a careful perusal of the accompanying table may suggest others.

List of Cases of Injury, with Bullets, Portions of Bullets, and Fragments of Shell, Radiographed at the Imperial Yoemanry Hospitals at Deelfontein and Pretoria, between March 19th, 1900, and March 31st, 1901.

Parts injured.	Number of cases radiographed	Number of cases in which foreign bodies were localised.
Eye	3	1
Head	11	1
Neck	2	1
Chest	18	7
Shoulder ...	10	1
Arm	13	4
Elbow	14	2
Forearm ...	10	1
Wrist	3	0
Hand	19	8
Abdomen ...	2	0
Spine	1	1
Back	5	3
Pelvis	6	4
Thigh and hip	30	18
Knee	8	3
Leg	16	8
Ankle		0
Foot	18	2
Total... ...	193	65

The list here given is not a long one, but is must be remembered that in most of these cases the presence of a foreign body was suspected. Many other cases were examined in order to ascertain the amount of injury sustained by bone during the passage of bullets through it, and in addition to several medical cases over 50 accidental fractures were radiographed. Again, during the greater part of our stay in the Karroo we were to all intents and purposes a base hospital, and all the cases had filtered through other hospitals before coming to us. It was only during the last two months that we received any wounded straight from the field, and curiously enough none of these came into my hands

The list is exceedingly interesting in showing that by far the larger majority of bullets retained in the tissues are found between the ankle and abdomen, whilst the upper extremities are comparatively free, with the exception of the hand. Here only in one instance was a whole bullet retained, the remainder being in the main splinters from bullets which had struck stones in front of the fighting line, and as in most cases the men were lying down the hands and heads were chiefly exposed Where the head was struck the result was in a very large majority of instances fatal, although a good number of these escaped, as is shown by my figures. In nearly every instance where a bullet was retained in the hip or thigh the whole of the missile was found. In more than three-fourths of the cases in which foreign bodies were localised they were removed by the operating surgeons and in no single instance was the object sought after missed. The position of the bullet was marked upon the skin and the depth from the skin was accurately ascertained. The only difficulty that can possibly arise after an exact and carefully made localisation where the bullet is near the bone is (even when the depth from the surface is known) that of deciding whether or not it is embedded in the bone itself. To decide this without preparing a pair of stereoscopic prints one must rely entire upon one's knowledge of anatomy; not that it is of very great consequence, for having decided that it is better for the patient that the bullet should be removed it is only necessary to be prepared for possibilities. A case in point occurred in a young soldier who was shot in the neighbourhood of the hip-joint. An x-ray localisation showed the bullet apparently lying across the neck of the femur, at the depth of five and a half inches from the buttock. A long consultation failed to show its exact position in relation to the bone, but it was decided to operate. The surgeon cut down upon the spot and found the bullet firmly embedded. It was removed and the patient made a complete recovery. Had it been possible to prepare a pair of pictures which could have been viewed in the reflecting stereoscope the question would have been at once settled, for by this method the exact relations would have been seen. The preparation of such pictures, of course, involves considerable trouble, but I am more than ever convinced that a reflecting stereoscope must in future form part of a base hospital equipment, for although in most cases measurements are amply sufficient there are undoubtedly occasions when it would prove of the greatest possible use.

Localisation by means of the x rays is based upon mathematical calculations and is so absolutely correct that I cannot imagine any surgeon even daring to consider any other method. Yet I am constantly hearing of the telephone probe, the latest competitor in the field of prehistoric instruments which even under the old conditions of warfare were bad, and under the new are worse than useless. There is no position in the body in which a bullet cannot be found and exactly localised by means of the x rays. Moreover, this can be done without disturbing the patient or subjecting him to anything but the slightest inconvenience for at the most 10 minutes. He runs no risk of infection from dirty probes and the results are absolute. The telephone probe is alone useful for finding a bullet when its position is known, and may on occasion prove of slight assistance during an operation when the bullet is in a difficult position to get at and cannot be seen. I am pleased to say that at The Imperial Yeomanry Hospital the telephone probe was never used, and yet in every instance in which the operating surgeon was called in the bullet was found.

In a previous article published in THE LANCET of Jan. 12th (p. 130) I drew attention to the inefficiency of the x-ray arrangements made by the War Office, and it is only since my return home that I have seen the reply of Colonel W. F. Stevenson, R.A.M.C., in which I am pleased to see that he quite agrees with me, that if an x-ray specialist is to be of any service he must devote the whole of his time to the subject. As regards the x-ray department which I am informed exists, I would like to ask how it is that experts were not turned out from there? and why it was necessary to employ laymen to do the work? Surely the fact than an expert must spend his whole time at the work should have been recognised years ago. Again, as regards (what I still dare to call) the so-called experts. I have before me three letters from the War Office, dated respectively Oct. 31st, Nov. 23rd, and Dec. 30th, 1899, informing me that experts were not required. Again, late in January, 1900, my services were refused, whilst those of medical students and manufacturers of apparatus were accepted at the princely income of £200 per annum. I do not wish to argue for one moment that these men have not done good work; but I again say that they can in no way be considered as experts.

I did not say that the apparatus sent out by the War Office was not good or that an insufficient number of sets were supplied, but I know that some of the sets were never used, whilst others were only used occasionally. During the whole of my stay at Deelfontein there was an apparatus at De Aar which I was told on the authority of the principal medical officer was never used. On the occasion of my first visit to Kimberley I found a gentleman in charge who was uninformed as to the use of the localising apparatus; and since then I have received a letter from another gentleman in charge of the same department asking me to give him some instruction. At a large hospital in Pretoria I found the Mackenzie-Davidson cross-thread localiser was being used as a developing table upon which the staff developed their Kodak films and, finally, I left my department at Deelfontein with no one in charge. These facts speak for themselves, and yet I am told that the War Office has a properly equipped x-ray department. In laying these facts before the readers of THE LANCET I have no intention of injuring or hurting anyone's feelings, they are written with the hope of bringing about a better order of things; and when the much-talked-of reform in the Army Medical Department is brought about I trust that this most useful adjunct to military surgery will not be forgotten.

That our x-ray department proved a success has already been testified to by our senior surgeon (Mr. A. D. Fripp, C.B.), who in his letters to the medical press has described it as "the most useful department in the hospital"; and I am sure that Mr. Raymond Johnson, Mr. H. A. Ballance, Mr. William Turner, and Mr. A. P. Parker would admit that some of the best surgery was the outcome of work done there; and I, moreover, feel certain that the figures herein published will go to prove that as an aid and necessity to military surgery the x rays must take the premier position.

Birmingham.

ANEURYSM OF THE SUBCLAVIAN AND AXILLARY ARTERIES: LIGATURE OF THE SECOND PART OF THE SUBCLAVIAN.

BY G. A. WRIGHT, M.B. OXON., F.R.C.S. ENG.,
SURGEON TO THE MANCHESTER ROYAL INFIRMARY AND PROFESSOR OF SYSTEMATIC SURGERY IN OWENS COLLEGE

AND

P. R. WRIGLEY, M.R.C.S. ENG., L.R.C.P. LOND.,
LATE HOUSE SURGEON TO THE MANCHESTER ROYAL INFIRMARY.

A MAN, aged 36 years, was admitted into the Manchester Royal Infirmary on Dec. 12th, 1900, complaining of "swelling of the main artery of the left arm." The appearance of the patient was that of a strong vigorous man, giving no history and presenting no signs of syphilis. His occupation necessitated the occasional lifting of heavy sacks of flour (240 lb.). He told us that in May, 1900, he first noticed pain in the left shoulder over the acromion, which was worse in the evening than on rising in the morning. He had the shoulder rubbed and as the pain disappeared entirely in two or three weeks he thought no more of it until in September the pain returned in greater severity. At first the trouble was looked upon as rheumatic, but in December the presence of aneurysm was recognised and he was sent to the infirmary.

On admission on Dec. 12th, the patient complained of pain in the left acromial region shooting down the arm into the left breast and the back of the neck. On examination there was found to be no difference in the muscular power of the two arms and hands and there was neither wasting nor œdema of the left hand and arm. Sensation, too, was quite normal. In the left clavicular region there was an extensive swelling stretching some distance above and below the clavicle and so prominent that the outer two-thirds of the clavicle were not apparent on inspection. Pulsation could be observed over the whole swelling. On palpation the swelling was found to be more extensive below than above the clavicle and to be both expansile and pulsatile. The swelling could be grasped by one hand just beneath the clavicle with the other pressing deeply in the axilla when the expansile pulsation could be felt in the axilla, which could also be felt in the posterior triangle of the neck. On compressing the third part of the subclavian artery between the finger and the first rib pulsation in the tumour was completely stopped, but the artery in its third part was evidently dilated. On percussion there was a dull area on the left side of the chest extending from the clavicle to one and a half inches below it and from the anterior axillary fold to within three and a half inches of the middle line of the body. On auscultation a harsh systolic bruit could be heard.

An operation was performed on Dec. 19th. The patient was prepared for this in the ordinary manner and chloroform was administered. The head was then pushed over to the right and the left arm was brought down to the side An incision four inches long was made at the upper margin of the clavicle, between the attachments of the trapezius and sterno-mastoid muscles, dividing the skin and superficial fascia The platysma and deep fascia were divided, the external jugular vein being exposed and divided between ligatures, as was also the supra-scapular vein The posterior belly of the omohyoid then came into view and was found to be much lower down than usual, with the subclavian artery high up. At this step the skin incision was enlarged and the clavicular origin of the sterno-mastoid was partially divided. The posterior belly of the omohyoid was retracted upwards and the scalenus anticus, which now came into view was retracted forwards. The subclavian artery in its third part was then distinctly seen and by following this upwards the second part was found to be of normal diameter, but the third part was greatly dilated The second part of the subclavian artery was then compressed and pulsation in the positions in which it had previously been palpable and in the dilated portion of the artery at once ceased.

After opening the sheath of the artery an aneurysm needle was passed round the second part of the artery from below upwards and threaded with "pedicle" silk and two ligatures were passed. The ligature nearest the heart was first tied, as far from the aneurysm as possible, and the second ligature was tied close to it Both these ligatures were tied in such a manner as to approximate the arterial walls without rupturing their coats and the free ends of the ligatures were tied together. All bleeding from the small vessels that had not been previously controlled was stopped and the wound was well washed out with biniodide of mercury lotion of the strength of 1 in 6000. The edges of the wound were then brought into apposition with silk sutures and the wound was dressed with dry dressing The whole of the left hand and arm was then covered with cotton-wool and lightly bandaged with domette bandages and the limb was supported across the chest.

As there were no unfavourable symptoms the dressings were not removed until Dec. 30th, the eleventh day after operation, when it was found that the wound had completely healed; the sutures were removed and light dressing was applied The aneurysm was much smaller in size and no longer pulsated. The radial pulse had not yet returned. On Jan. 26th, 1901, the patient was discharged from the infirmary convalescent; the circulation in the left arm and hand was good, though the radial pulse had not yet returned There was no sign of pulsation in the site of the aneurysm When seen on Feb. 26th there was still a slight bulging in the position of the aneurysm, but this swelling was firmer, harder, and non pulsatile. There was now very slight pulsation in the left radial artery. The patient was advised still to make use of a sling but to attempt slight movements of the arm and hand.

Remarks by MR. WRIGHT —From the notes (for which I am indebted to my then house surgeon, Mr. Wrigley) it will be seen that it was necessary to tie the second part of the subclavian in this case on account of the dilatation of the third part of the artery. This was not much more than a nominal difference as extension of the wound forwards and retraction of the scalenus enabled us to reach a very high artery at a point where it was healthy. We were anxious as to the condition of the artery beyond the ligature since it was greatly dilated, but the dilatation began somewhat suddenly and the part tied was natural in size Thick silk was used and the principle of the "stay knot" was adopted without division of the coats of the vessel The thick "pedicle" silk made a somewhat bulky ligature, but healing went on without trouble. We had the advantage of the help of Mr A. H Burgess, now surgeon to Crumpsall Hospital, at the operation

---

WESTMINSTER HOSPITAL FESTIVAL DINNER.—On June 12th the Duke of Buccleuch presided at the festival dinner of this institution at the Salters' Hall St. Swithin's-lane, E C. The chairman, in proposing the toast of the evening, said that several additional rooms for scientific purposes had been added to Westminster Hospital in recent years and he thought that at the present time the hospital might be considered equal to all modern requirements During the evening the secretary announced contributions amounting to about £8500

MEAT PREPARATIONS: THE POSSIBILITIES OF MYOSIN ALBUMIN.

BY F. W. FORBES ROSS, M.D. EDIN., D.P.H R C.P.S LOND.

FOOD problems at the present time possess a peculiar interest alike for the medical and the lay mind. The main desiderata are: for the former, physiological efficiency, nutritive, formative, reparative, and stimulative powers in all directions compatible with the minimum of effort in assimilation; for the latter, efficiency, cheapness, and portability. From the above two points of view nothing comprised in the dietary of mankind possesses so many points of technical interest as meat, particularly those qualities of a meat diet mentioned above. This is especially the case when dealing with preserved meat preparations or preparations of meat which are not readily and easily made and are therefore kept put up in specially desired forms ready for consumption at a moment's notice

Extractive compounds —The more commonly obtainable and popular preparations, or meat extracts, are all slight variants of, and are made from, a single preparation which is mainly composed of urea, uric acid, sarcolactic acid, *creatin*, *creatinin*, *xanthin*, *hypoxanthin*, *taurin*, &c. *These* elements, belonging as they do to the waste-product compounds, possess properties which are mainly stimulative; their action rests mainly in calling up effort from already stored energy to which they could only very partially if at all contribute, the effort of the organism being for the most part aimed at their excretion and expulsion. This effort can at times be voluntarily switched off, so to speak, from being an effort of excretion into a motor or mental channel From the above it can easily be seen that their effect when partaken of can only be one of very short duration, indeed, the more frequently the dose be repeated the shorter become the periods of their functional utility—that is, provided they are not at the same time reinforced by food substances the functions of which are mainly nutritive, formative, and reparative, in order to repair the wear and tear which are the results of forced energy brought about by the administration of extractives Eventually, if their sole administration be continued, they begin at last actively to exhaust and to break down tissue, because having used up stored materials and energy they make demands for their excretion which must be and are answered by destructive metabolism of formed tissue existing within the organism and if now the excretory power fails they accumulate and become poisonous. This is easily demonstrated by the dieting of dogs, some on stimulant extractive alone and others on stimulant *extractive in combination with nutritive* and formative albuminous meat compounds, and then noting the results The latter are not adversely affected, in some cases being distinctly benefited, whilst the former rapidly emaciate and die and are even outlived by dogs simply starved and only allowed water. The same is observed in the feeding of enteric fever patients on stimulant extractives alone, *for in addition to the already heavy load* of "waste products" incidental to their disease which demands removal any addition of a purely extractive diet is often followed by signs of exhaustion of excretive power, and symptoms of accumulated waste-product poisoning supervene.

I once personally experimented on a diet composed solely of commercial stimulant meat extract, but on the sixth day abandoned the attempt after a syncopal attack, the result of the deprivation of material to repair the wear and tear of tissue Extractive meat preparations, like most other stimulants, are also to a certain extent irritants when given alone or in too great a proportion in combination. On patients suffering from gastric irritability, catarrh, &c, even on some healthy persons and children, stimulant extract will often act as an emetic, and if repeated will set up diarrhœa. This latter action is, perhaps, as much the result of its being in part irritant when strong, and stimulant to the excretory and motor functions of the intestine and liver, as to the fact that, according to Professor A E Wright of Netley,[1] much peptone entering the blood-stream at one time leads to outflow from the blood-vessels, causing diarrhœa. The above also refers equally to the action of many peptonised meat preparations (albumoses) in producing diarrhœa if their administration be persisted in.[2] The stimulant extractive or waste product compounds of meat nevertheless occupy a position of utility within certain limits which is undoubted. If they act only as excitors of convertible energy they are useful in that they lead to functional activity which may be expended in assimilating the nutritive and formative components of meat provided the latter be present or obtainable.[3]

---

[1] Serous Hæmorrhage: THE LANCET, Sept. 19th, 1896, p. 807.

Gelatin.—Midway between the extractives and albumins from a dietetic point of view comes gelatin. Till recently gelatin was supposed to have little or no claim to functional nutrition, and at most was regarded as a substance used by the organism as a "stand-by" to prevent destructive metabolism of formed tissue in the absence of circulating surplus proteid.[4] Lately, however, opinion is more in favour of gelatin being after all of distinct food value, how much merely stimulant and how much really nutritive and formative is still a matter to be settled.

Albumins.—The albumins, globulins, and paraglobulins of muscle plasma have a distinct and decided function as nutritive, formative, and reparative agents. Their position as food substances in every acceptation of the term is indicated by their large proportion in meat food. Their near resemblance to the higher protoplasmic elements of the more elaborated nerve tissue, their close connexion therewith, their marked resemblance in saline constituents—e.g., phosphates—their complex functions as motor, heat-producing, oxidising, and waste-product destroying agents, all tend to point them out as food ingredients of the highest possible value. Albumins most probably play a great part in furnishing the materials of the various secretions. The above are all well shown in the defective functions and diminished vitality, debility, and chronic ill-health of persons whose muscular system has been allowed to fall into want of tone through disuse, and the prompt improvement which occurs on renewing their tone, bulk, and function by proper feeding, development, and exercise. The foregoing tends to point clearly to the great value and benefits to be derived from the use of the albumins of muscle as an addition to meat preparations intended for general consumption, in a condition as near their natural state as they exist in the living creature, unaltered by chemical or predigestive processes. The food best adapted for the maintenance of prolonged muscular effort and for the repair of the resulting wear and tear is a diet of meat albumin; hence the preference of those in "training" for "beefsteak," and the marked benefit to be obtained by feeding on myosin albumin in cases of heart-failure, especially in elderly persons who have been unable to eat meat and have taken to milk-slops owing to loss of teeth or badly fitting false teeth through senile absorption of the alveolar borders of the jaw.[5] Milk or casein albumin, though excellent as an article of diet for infants, does not furnish the necessary food equivalent for the adult. Milk is nature's food for the infant; muscularity is not the leading feature of the infant; muscularity is the distinctive feature of the adult; consequently milk cannot be safely assumed to be a satisfactory food substance for adults without reinforcement from other food sources. It is well known that milk as a sole article of diet cannot support life in an adult for a longer period than from four to six weeks. On the other hand, the albumins of meat can be given to children past the first year of life with benefit and safety during long periods. If the mixed albumins designated by the comprehensive term "myosin albumin" were extracted from meat and exhibited in various forms and combinations with or without suitable proportions of extractives and gelatin, they would lend themselves in a number of ways to the prospective solution of many problems. The system of manufacture of meat preparations now practised is to subtract one solitary constituent property from meat, and in some cases from blood, and that constituent not the most valuable, and then to speak of "concentration" which is really the reverse, as it amounts to "fractional distillation," resulting in the discarding of the more nutritive, formative, and reparative elements (albumins) in favour of the less useful stimulative elements which now masquerade as "concentrated meat extract."

Emergency rations.—The problem of an efficient emergency ration for soldiers, tourists, cyclists, travellers at home and abroad, and for anyone who desires to carry concentrated food of high nutritive value can be solved by the use of myosin albumin suitably combined and seasoned. Here the stimulant, nutritive, formative, and reparative constituents of fresh beef alone take the place of the more bulky canned meat with its 70 per cent. of fibrous matter, possessing little food value in comparative proportion. By this means one pound weight of steak can be carried in a made-up compound ration of four ounces in weight (nett), and be palatable and relatively of more utility under the circumstances than one pound of meat, as it can be digested and assimilated more easily. That there is need and room for such a ration is proved by a letter by Captain J. H. E. Austin, R.A.M.C.,[6] on the feeding of soldiers on the march, in which such a ration is demanded. At the same time a ration of myosin albumin lends itself to variety, for the ration can be made into good soup or stew with meal, pea-meal, biscuit, or desiccated vegetables.

In the treatment of disease myosin albumin can be used as a reinforcement to milk puddings for invalids, heart cases, &c., as it can be made absolutely tasteless. With boiled biscuit, egg, and cream it makes a delicious panada. When persons suffering from the effects of "gout" abstain from eating ordinary meat by reason of the uric acid and waste products it is said to contain in a free state, yet who need meat and the iron albumins of meat, as in senile heart failure cases, then the difficulty can be met, as myosin albumin can be so treated by dialysis, &c., as to free it from all natural extractive and waste products and so render it desirable as an article of diet for those of the gouty diathesis. In the treatment of enteric cases I have had opportunity of judging its action,[7] and have found it an efficient means of supplying the needed energy to carry on the functions and secretions of the body and at the same time to repair waste. In the treatment of tuberculosis the value of meat albumin is undoubted, not only as a means of repair, but also as a direct strengthener of the forces of resistance already present in the body. Dr. Parkes Weber[8] speaks highly of meat albumin in the treatment of tuberculosis, and so does Djvorack.[9] Héricourt Richet's[10] experiments on dogs are of value, though he attaches great importance to the rawness of the meat. In a case published by Dr. Fletcher Little and myself[11] in THE LANCET, myosin albumin was used with success prior to the prescription of the open-air treatment, and the case did remarkably well and the patient rapidly gained weight even after residence abroad had failed to benefit. Perhaps it is that, apart from the theory of natural somato-antitoxin, raw meat gives up its albumins quicker than does toughened cooked meat and that, as in the case above cited, if sufficient albumin at a time be forthcoming in response to a minimum of digestive effort, then the results will in all probability improve *pari passu*.

The foregoing will, I trust, serve to indicate the field of utility open to myosin albumin in food problems of the future, whether as emergency ration, general meat extract, or specific preparations for invalids and young persons. Hitherto it has been mainly absent, wholly or in part, from existing meat preparations, and where alleged to be present has been too expensive to suit any but the pockets of the richest. It yet remains to devise a suitable, cheap, and economical process for extracting and dealing with "myosin albumin" in bulk as a commercial proposition, and thereby to bring it within general reach as a constituent of meat preparations of the highest nutritive, formative, and reparative value.

Gower-street, W.C.

---

[2] Loc. cit.

[3] Harry Campbell: Discussion (Address), Diet in Treatment of Disease, Brit. Med. Jour., Oct. 13th, 1900.

[4] M. Foster's Physiology, Section 524, p. 798.

[5] Forbes Ross: Diet in Heart Failure in the Aged, Brit. Med. Jour., Oct. 13th, 1900.

[6] Brit. Med. Jour., Feb. 2nd, 1901.

[7] Forbes Ross: Intestinal Intoxication in Infants (Rebman, London, 1897).

[8] Meat in Pulmonary Tuberculosis, Zeitschrift für Tuberculose und Heilstättenwesen, 1900.

[9] Bericht über den Kongress zur Bekämpfung der Tuberculose, Berlin, p. 619, 1899.

[10] Bulletin de l'Academie de Médecine, Paris, Nov. 28th, 1899.

[11] Open-air Treatment of Phthisis, THE LANCET, Dec. 1st, 1900, p. 1567.

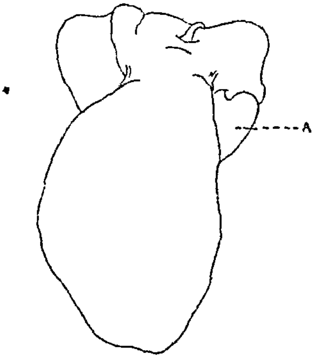
CHARING CROSS HOSPITAL.—A concert was given in Stafford House on June 11th in aid of the special fund for Charing Cross Hospital. The picture-galleries were thrown open to the visitors and tea was served in the dining-room and the garden.

A NOTE ON A CASE OF FIBROMA OF THE SMALL OMENTUM

BY J JACKSON CLARKE, M B LOND, F R C S ENG,
ASSISTANT SURGEON AT THE NORTH WEST LONDON HOSPITAL
AND AT THE CITY OF LONDON ORTHOPÆDIC HOSPITAL.

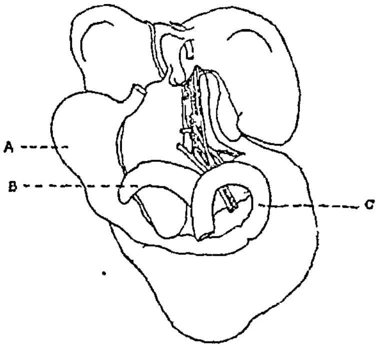
IN the Transactions of the Royal Medical and Chirurgical Society for the year 1900, Mr Pearce Gould has recorded a case that is not only remarkable in itself but also lends a reflected interest to a case that I communicated to the Pathological Society of London in the year 1892 Since Mr Pearce Gould, in the record of his case of sarcoma of the gastro-hepatic omentum, has fully quoted the pathological account of my specimen as well as the comments that I made upon the surgical anatomy of the tumour, the only reason that I have for bringing the subject forward again is that I may remove a defect from the record of my case as it now stands in the place above referred to Mr. Pearce Gould has drawn attention to this defect by expressing regret that in my account no details of the alteration in the position and shape of the stomach and duodenum or any exact account of the state of the portal vessels and *common bile-duct* are given *It is fitting to* state that these details were included in sketches that I exhibited with the tumour before the Pathological Society of London With these sketches before me I can now state that the stomach was of an elongated and narrowed form, the greater part of it lying obliquely behind the tumour This elongation of the stomach resulted in the pylorus being at a much greater distance from the cardiac orifice than is normally the case The pylorus lay behind the growth, a little to the right of its median line and about the junction of its lower and middle thirds From the pylorus the duodenum passed first upwards, then to the left, and finally downwards, completing three fourths of a circle The opening of the common bile duct into the duodenum was situated vertically above the pylorus in the middle of the horizontal portion The common bile duct, the hepatic artery, and the portal vein were elongated and lay behind the upper half of the tumour near its right border The main arterial supply of the growth was an offshoot of the gastro duodenal branch of the hepatic artery There was a hepatic branch of the superior mesenteric artery which ran up behind the portal vein to the liver

FIG 1



The tumour and the liver and the cardiac end of the stomach (A seen from the front.

FIG. 2



The liver, the stomach and duodenum, the pancreas, and the tumour seen from behind The structures in the right border of the small omentum have been exposed by dissecting away the posterior layer of peritoneum. A = stomach, B = pancreas, C = duodenum.

Portland place, W

A Mirror

OF

HOSPITAL PRACTICE, BRITISH AND FOREIGN

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus Morb.*, lib iv, Proœmium

WESTMINSTER HOSPITAL

A CASE OF PYÆMIA AFTER ABORTION IN WHICH THE PERICARDIUM AND THE LEFT PLEURA WERE OPENED AND DRAINED, DEATH

(Under the care of Dr W A WILLS and Mr W G SPENCER)

DRAINAGE of the pericardial cavity is still an extremely rare operation, though several of those that have been described have been very successful It is now generally recognised that it is very difficult to aspirate the pericardium on account of the tendency manifested by the heart to float towards the sternum when the patient is in the recumbent posture The following case illustrates the importance of ascertaining the nature of the micro-organism present in a case of septicæmia or pyæmia, for we have no reason to think that anti streptococcic serum would be of any avail in infection due to a staphylococcus For the notes of the case we are indebted to Mr H Hallilay, house physician

A married woman aged 24 years, with six children, was admitted into Westminster Hospital on April 4th, 1901, under the care of Dr de Havilland Hall and during his absence came under the charge of Dr Wills The patient was in her usual health until a fortnight before admission She then was attacked by malaise, joint pains, and feverishness, and took to her bed at once She was three months pregnant and at the end of the first week of her illness she had a miscarriage She had had no vaginal discharge before, but after the miscarriage a discharge came on and lasted for about a fortnight She was admitted as suffering from acute rheumatism with pericarditis

She was a stout somewhat florid woman Her temperature was 103° F There was considerable dyspnœa Her face was livid and the alæ nasi were working She was sweating freely but there were no joint pains There were evident signs of pericardial effusion, the præcordial dulness extending to the left just beyond the nipple line and upwards to the upper border of the third costal cartilage The impulse was feeble and diffuse There was a distinct pericardial rub heard at the left margin of the sternum over the base of the heart and the heart sounds were muffled but clear From the angle of the scapula to the base of the left lung there were dulness, whiffy tubular breathing, and bronchophony, with some increase of vocal *fremitus* pointing to pneumonic consolidation of the left lower lobe Elsewhere over the lungs there were no abnormal physical signs The pericardial effusion did not appear to be sufficient to account for the dyspnœa and lividity, but these no doubt were due to the lung being also involved.

During the next week the patient's general condition improved somewhat. Her appetite was remarkably good and she took solid food readily, but her breath remained very short. The signs of consolidation at the left base had almost entirely disappeared, but there was impaired resonance with some tubular breathing and a few râles at the end of inspiration at the right base. The præcordial dulness had extended to half an inch beyond the nipple line; the pericardial rub was still audible. The diagnosis of septicæmia after a miscarriage had by this time been provisionally made, though the patient's statements about the date of this event were so contradictory, varying from a fortnight to six weeks previously, that there was still some uncertainty. However, on April 15th two abscesses were found, one on the back of the right shoulder and the other over the left hip. They were opened and drained, being found to contain thick yellow pus.

On April 17th 10 cubic centimetres of anti-streptococcic serum were injected into the cellular tissue of the abdomen. The patient's general condition continued very good, with the exception of much dyspnœa and lividity on the least exertion. The physical signs at the right base had nearly gone, but at the left base signs of effusion had succeeded to those of pneumonia, though the amount of fluid did not appear to be large. A rapid increase of the already large area of præcordial dulness now took place, the left margin reaching to the anterior axillary line, the right border being one inch beyond the right edge of the sternum and the upper limit being the second left costal cartilage. At the same time the heart sounds became extremely muffled, much more so than at any previous period of the pericardial effusion. Her temperature since admission had ranged between 103° and normal, but until the last five days had rarely risen above 101°. Her pulse averaged from 140 to 160 and her respirations from 40 to 60. As it was clear that she was suffering from pyæmia, as evidenced by the two abscesses which had been opened and the signs of infection of the pleural and pericardial sacs, it was thought probable that the distension of the pericardium was due to a purulent rather than to a serous effusion, and as the heart's action during the last 24 hours had shown some signs of failing Dr. Wills decided to ask Mr. Spencer to open and to drain the pericardium. On the 19th she was accordingly transferred to his charge.

Mr. Spencer found no external signs of the pericardial empyema, in particular no œdema over the sternum. The patient was given a little ether which did not increase the dyspnœa or the pulse-disturbance. An angular incision was made down the left side of the sternum and outwards along the costal margin. This incision was required as there were much subcutaneous fat and a heavy dependent breast which had to be retracted upwards and outwards. The fifth left rib cartilage was then excised and the internal mammary artery was tied above and below. Behind the rib appeared the parietal pleura and through it was seen the edge of the lung, whilst all that could be felt with the finger at that stage seemed like the base of the heart. The sixth rib cartilage was next removed, but behind it only the diaphragm was found. Thus, so far, the distended pericardium had not come into view. Thereupon the patient was turned on the side and the left pleura was opened by removing a piece of the seventh rib in the post-scapular line. Turbid sanious fluid escaped from the pleura: there was no fibrin or adhesion and the lung quickly expanded. On exploring the pleural cavity with the finger the dome of the diaphragm was felt and above it the tensely distended pericardium behind the heart. An attempt was made to thrust a long aspirating needle into the pericardium, but it only stuck in the diaphragm. The patient was therefore again turned on to the back, the parietal pleura behind the fifth rib cartilage was opened, the edge of the lung was pushed aside, and the parietal pericardium incised. As before mentioned, it seemed as if one was incising the pericardium at the base of the heart. It proved to be about a quarter of an inch thick; on entering the cavity the wall of the heart was immediately reached, the parietal and visceral surface being partly adherent by recent fibrin. The heart was of normal size; on passing the finger round the apex the distended portion of the pericardium was reached and purulent fluid escaped freely. From a portion of the first which escaped a pure cultivation of staphylococcus pyogenes aureus was obtained. The pericardial differed from the pleural empyema in the fibrin and adhesions present. A large drainage-tube was quickly inserted past the apex of the heart into the cavity behind, and a strip of gauze was inserted into the pleura.

The patient, without being markedly improved by the operation, for a fortnight maintained her strength till about a week before death. Pus and fibrinous shreds escaped freely through the pericardial tube. The cavity was washed out daily by alternately injecting water and sucking it out again. At first she was supported by pillows, so that the cavity drained, but it did not empty completely when she became more prostrate. The pleural wound discharged very little; the lung fully expanded and as shown post mortem the communication in front was shut off. About a week before death another abscess formed deep in her right buttock, but this, owing to her weakness, was only aspirated.

Post-mortem examination by Dr. W. S. LAZARUS-BARLOW.—The body was found to be well nourished. There were a surgical incision in the præcordial area which discharged pus from the pericardium and a small incision in the right suprascapular region. The pleural cavities were fairly free from adhesions. The lungs were small and were collapsed at the lower edge of the left lower lobe. The upper part of this lung and the whole of the right were normal. The larynx, trachea, and bronchi were normal. The pericardium was thickened and in places the two layers were adherent, everywhere being covered by a thick layer of curdy material. Free pus was present in the non-adherent parts of the cavity. The heart was of normal size; the myocardium was pale; the valves were normal. The liver was fatty and showed early cardiac changes. The spleen was large and soft. The pancreas was normal. The kidneys showed a cloudy swelling. The stomach and intestines were normal. As regards the uterus, the endometrium was congested, the wall was pale, the cervix was dilated, and the os was patulous. The tubes were congested. The ovaries were normal.

Remarks by Dr. WILLS.—The number of recorded cases of pericardial drainage is not large so it has been thought advisable to publish this account of the operation. As the patient was clearly suffering from pyæmia, when the operation was decided on it was considered better to make a free opening into the pericardium at once, without any preliminary attempt to ascertain the nature of the fluid by the use of an exploring syringe. The information thus obtained is so apt to be misleading, owing to the probability that the pus, unless in very large amount, will gravitate to the back of the pericardial sac, on account of the necessarily recumbent position of the patient, that it was felt to be unwise to risk the damage which might be caused by puncturing the heart wall. This has often been done without any harm resulting, but the likelihood of its occurring even when fluid is present in the sac, but present in the back of the sac rather than evenly diffused, is so great as to render the negative evidence of fluid so obtained of very little value. Moreover, the comparatively small needle which must be used for fear of the possible puncture of the heart wall being dangerous if large is so likely to be blocked by shreds of lymph that a further element of uncertainty is introduced in this way.

Remarks by Mr. SPENCER.—This case is surgically noteworthy as an instance of the collection of fluid almost entirely behind the heart; hence there was no appearance of a distended pericardium on the removal of the fifth rib. It proved, however, as in previous cases, that the fifth rib was the proper one to remove in order to expose the pericardium. If the patient had recovered somewhat a further operation would have been needed to have got rid of the cavity behind the heart, as the parietal wall of the pericardium was so thick and rigid. It would probably have become necessary to cut away the lower portion of the pericardium.

The diagnosis was based entirely upon the physical signs noted by Dr. Wills. It is very fortunate that no attempt was made to explore the pericardium with an aspirating needle Had this been done through the fourth or fifth interspace close to the sternum considerable resistance would have been met with in passing through the pericardium and the needle would most certainly have gone on into the heart wall, for there was practically no fluid between the pericardium and the heart in front, only a layer of fibrin with fluid in its meshes. The distension of the sac was behind, out of reach of an aspirating needle.

GLASGOW ROYAL INFIRMARY.

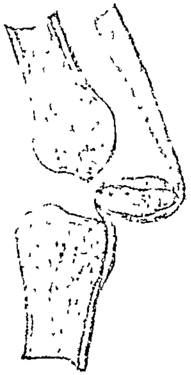
TWO CASES OF DISLOCATION OF THE PATELLA, ONE UPWARDS AND ONE DOWNWARDS.

(Under the care of Dr. DAVID NEWMAN and Dr. HENRY RUTHERFURD.)

THE exceeding rarity of these forms of dislocation of the patella is manifest from the total absence of any description of them from the text-books. Either form must require a direct blow on the patella, and this blow must probably be delivered in a nearly vertical direction, either upwards or downwards, according to the variety of dislocation produced.

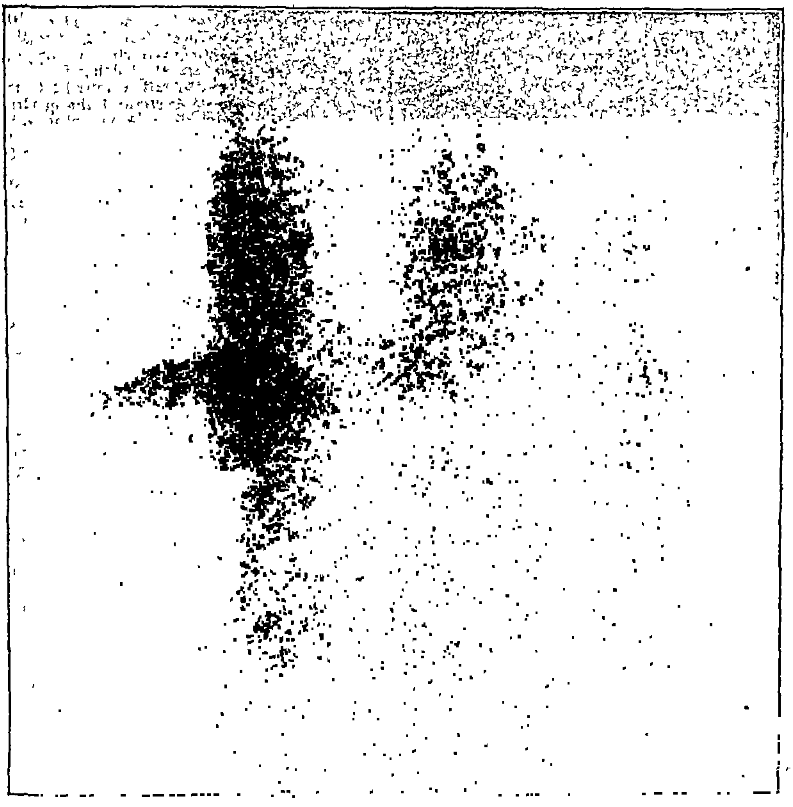
CASE 1. *Dislocation of the patella upwards by rotation on its horizontal axis, the articular surface presenting upwards.*—A man, aged 24 years, was on Oct. 24th, 1900, admitted into the Glasgow Royal Infirmary under the care of Dr. David Newman complaining of an injury to the right knee-joint. The history of the accident given by the patient was that a few days prior to admission he fell and injured his right knee which he said had been weak as the result of an injury received six years ago. On examination the knee was seen to be swollen and the slightest pressure with the hand caused the patient great pain. The knee while at rest assumed a slightly flexed position and without the employment of an anæsthetic the joint could not be further flexed or extended. Two days after admission the patient was placed under chloroform and the knee-joint was examined. Dr. Newman found that

FIG. 1.



Section of the knee-joint, showing dislocation of the patella upwards in Case 1.

FIG. 2.



Skiagram (lateral) showing the dislocation of the patella downwards in Case 2. The upper border is engaged between the femur and the tibia.

while the lower border of the patella was wedged in between the head of the tibia and the condyles of the femur there was an abrupt hollow immediately below the dislocated bone, and the ligamentum patellæ lay close to the head of the tibia, while the tendon of the quadriceps extensor muscle was thrown forwards and rendered unduly prominent. On both sides of the tendon there was a deep groove. Fig. 1 shows a section of the knee-joint in its middle line. The condyles are not represented, being shown as a section through the inter-condyloid notch. The apex of the patella was wedged between the head of the tibia and the adjacent surfaces of the internal and external condyles, and was there firmly fixed. While the patient was under the influence of the anæsthetic the dislocation was easily reduced by manipulation and the movements of the limb were completely restored. Probably a portion of the ligament of the patella was separated from the bone, but this could not be ascertained by palpation through the integuments; there was no evidence of rupture of the tendon of the quadriceps extensor muscle.

Remarks by Dr. NEWMAN.—The case above described is exactly the converse of the one now published by Dr. Henry Rutherfurd. In the very interesting case brought forward by him the apex of the bone was thrown forwards, so that the articular surface looked downwards, while the base of the patella was wedged between the head of the tibia and the condyles of the femur. In my case it was the lower border of the patella that was fixed in the knee-joint; the articular surface looked upwards while its base projected forwards.

CASE 2 *Downward dislocation of the patella.*—A youth, aged 18 years, was admitted to Ward 25 of the Glasgow Royal Infirmary on Jan 28th last with an injury to the left knee, and in the absence of Mr. H. E. Clark came under the care of Dr. Henry Rutherfurd. The history was that the night before the patient had struck his knee against a bogey or low truck which was standing in his way and had been thrown down by the violence of the impact. Dr. W. S. Findlay of Bellshill saw him and recognised the existence of a dislocation of the patella; on admission the joint was painful, fixed, and its capsule was distended. Dr. Rutherfurd examined the patient under chloroform, expecting to find rupture of the quadriceps or possibly fracture of the patella. No gap could be found in the continuity of the rectus tendon nor could any fragmentation of the patella be made out. A body apparently corresponding to that bone could be felt impacted between the femur and the tibia as if it had been turned through a right angle on its transverse axis. On the presumption that it was the lower edge that was presenting forwards an attempt was made to reduce it, but this was not effected even after emptying the joint by an incision through the vastus externus. In view of the unusual nature of the injury Dr. Rutherfurd thought that it was advisable to have the parts skiagraphed before proceeding further. This was done the same day by Mr. Brennan, electrician to the infirmary, and the print which he obtained confirmed the diagnosis (Fig. 2). The patella is seen with its articular surface turned downwards and engaged between the femur and the tibia. The ligamentum patellæ is seen tightly stretched.

On Jan. 30th (two and a half days after the injury) the patient was again put under chloroform and Dr. Rutherfurd proceeded to operate for reduction of the displacement. It being probable to his mind that there was a rupture of the quadriceps which would require suture he turned up a flap from below the anterior tubercle of the tibia, exposing the front of the joint to above the insertion of the rectus femoris. The tendon though ecchymosed presented no rupture and he was still unable to pull up the patella from its position between the bones. Accordingly the joint was cut into about a finger's breadth from the outer side of the patella, and passing in the finger the bare anterior surface of the patella could be felt and seen presenting upwards; with a hook it was now levered into place. The wound of the capsule was closed with a continuous suture of chromicised gut, and afterwards the skin flap was dealt with in like manner. The joint was carefully emptied of blood by pressure and a bulky dressing was applied; no splint was employed. A fortnight later the dressing was removed, when the joint was found to be of normal appearance; there was no gap above the patella and there was no tilting forwards of its upper edge, as is typical in rupture of the quadriceps. Within another week the patient was walking about the ward and on Feb. 22nd he was sent out. On the day after the operation there was a rise of temperature to 101° F. Whether this was due to absorption of extravasated blood or to a slight formation of stitch abscess is doubtful. Next night the temperature was 100° and thereafter it was regularly below the normal.

Remarks by Dr. RUTHERFURD.—So far as published records go this would seem to be a unique case. Apart from compound injuries, I am inclined to think that engagement of the patella between the bones entering into the formation of the knee is rare, yet it is only a few weeks since that I was told by my colleague, Dr. Newman, of the first case which is described above, but the interest of the case which I have described lies in its bearing on the generally accepted view as to the classification of dislocations of the patella. This may be taken as expressed by Stimson:[1] "Dislocations [of the patella] upwards and downwards should not, I think, have a place in the classification, since they are the secondary results of other lesions, rupture of the ligamentum patellæ or of the tendon of the quadriceps, which are to be deemed the principal and controlling ones." The same view is set forth by Stephen Smith in his edition of "Hamilton on Fractures and Dislocations"[2] and by Berger[3] who quotes Malgaigne, and before him Petit, as having enunciated the doctrine. It may seem difficult to distinguish between a tearing away of the patella from the insertion of the quadriceps and a rupture of the quadriceps itself, but I think that the distinction is valid. In the case which I describe the periosteum was stripped from the front of the patella and remained connected with the quadriceps, so that the extensor apparatus of the knee was virtually intact. Rupture of the quadriceps, even if it be held to have occurred, was certainly not the "principal and controlling lesion." The lesion here was due to direct violence, and the difference between its results to the extensor function of the knee and that resulting from a true rupture of the quadriceps is analogous to the difference in the functional results in fracture of the patella from direct and indirect violence. Judging from the statistics collected by Berger in the article referred to there are at least three points wherein rupture of the quadriceps differs from the injury which I have described—namely: (1) rupture of the quadriceps is an accident of advanced life—more than two-thirds of the cases were over 50 years of age; (2) it is almost invariably due to muscular action—in the one case out of 28 where it was ascribed to direct violence the patient was the subject of locomotor ataxy; and (3) the recovery (apart from the results of suture) is slow and in many cases markedly incomplete.

Medical Societies.

OPHTHALMOLOGICAL SOCIETY.

Study of Inflammatory Exudates into the Vitreous.—Paralysis of the Third Nerve with Unusual Complications.—Double Symmetrical Opacities of the Cornea.—Erythropsia.—Eye Injury due to Lightning in South Africa.—Exhibition of Cases and Specimens.

AN ordinary meeting of this society was held on June 13th, Mr. G. ANDERSON CRITCHETT, the President, being in the chair.

Dr. LESLIE BUCHANAN read a paper on Inflammatory Exudates into the Vitreous which was illustrated by lantern slides made from his preparations. He said that the exudation into the vitreous in cyclitis was, in the first instance, formed in the pars ciliaris retinæ, and more especially in the non-folded portion of it, but soon the folded portion, the fibrous stroma of the ciliary body, and the retina took part in the production of the inflammatory exudate. The exudate into the vitreous body was seen in the fresh specimen fixed in 5 per cent formalin as opaque white flocculent masses. It might be divided into zones, which from the ciliary body inwards were as follows—namely: (1) a fibrous zone; (2) a fibrinous zone; and (3) a fibrino-cellular zone. The formation of fibrous tissue began very early, probably about the eighth day. The formation of fibrous tissue was accomplished by the action of certain ova nuclei on the fibrin ending in the formation of fibrous tissue. The cells which formed the exudate at first formed masses on the non-pigmented layers of the pars ciliaris retinæ and were of various characters. That these cells were not all derived from the endothelium was shown by bleaching and re-staining, when many cells might be seen migrating through the pigment layer to the free surface. In the retina also there was evidence of migration. The cells thus exuded passed to a greater or less depth into the vitreous. Here they proliferated rapidly. In the more superficial portions of the exudate degenerated protoplasm might be seen not having a nucleus, though no instance of mitosis had been seen. Fatty degeneration followed and further migration of nuclei took place, these finding their way back by the lymphatics. A fibrinous cyclitic membrane was thus left infiltrated with fat and highly vascular. The fat was absorbed, the blood-vessels were gradually constricted, leaving a comparatively avascular fibrous tissue layer, by the contraction of which the eye was distorted and destroyed. A further change was the formation of true bone. Spherical globules were formed, which grew, forming a solid mass penetrated by blood-vessels, and finally converted into bone. The bone corpuscles were probably fibrous tissue corpuscles. The cavities of the bone were lined by osteoblasts containing blood-vessels, fat, and crystals of fatty acids.

---

[1] Fractures and Dislocations, 1899, page 772.

[2] 1891, page 760.

[3] Article "Rotule," Dictionnaire Encyclopédique des Sciences Médicales, 1877.

Mr. P. H. MULES reported a case of Paralysis of the Third Nerve with Unusual Complications. The patient was a man, aged 75 years, who, feeling ill on May 4th, 1900, proceeded to treat himself on the following original plan. He first took half a box of "wind pills," together with a variety of other sorts. Feeling no better he took two ounces of a solution of tartar emetic. The vomiting having ceased two days later, and feeling his head very sore, he applied to his forehead and scalp various applications chiefly used for veterinary purposes. He became so much worse that Mr. Mules was sent for. Incisions were then made into the œdematous scalp and 10 grains of calomel were given. The following day (May 10th) the patient was better, though sloughs covered the scalp and there was severe pain. It was then noticed that there was paralysis of the third nerve. On May 27th the scalp had healed but the paralysis remained. Mr. Mules thought that the cause of the trouble was herpes of the fifth nerve. This was the cause of the patient feeling ill in the first place. The vesicles were never seen on account of the applications which caused so much destruction of tissue. As a sequel to the herpes paralysis of the third nerve ensued.—Mr. DEVEREUX MARSHALL referred to an exhaustive paper on Herpes by Head and Campbell published last year in *Brain*. The cases were sometimes epidemic. The lesion was in the Gasserian ganglion.—Dr. ALDREN TURNER saw no reason why the third nerve should not be affected and did not consider motor paralysis uncommon after an attack of this disease.—Mr. MARCUS GUNN asked if there had been an injury and mentioned two cases in which an attack had definitely followed traumatism.—Mr. JOHNSON TAYLOR asked if any vesicles had been seen on the cornea.—Mr. MULES, in reply, stated that none had been observed.

Mr. MULES recounted a case of Double Symmetrical Opacities of the Cornea. The patient, who was aged 70 years, developed opacities of the cornea eight years ago. These were symmetrical and brownish in colour and had been increasing. The apices were at the pupils and their bases at the corneal margin. A vertical slit was present in each. One was removed by scraping but the other was removed far more easily by means of a fine knife inserted beneath it. The result was quite satisfactory.—The PRESIDENT said he had watched a similar case for seven years but it had not reached the pupil and he had done nothing to it at present.

Dr. W. H. R. RIVERS described a Form of Erythropsia which appeared after exposure to high illumination as a well-defined deep red border round a white object. The phenomenon might be regarded as an intermediate link connecting the ordinary forms of erythropsia with the transient red border seen round a white object which had been described by Shelford Bidwell. It was shown that Bidwell's phenomenon, "border erythropsia," the artificial erythropsia of Fuchs, and clinical erythropsia such as occurs after the removal of the lens, were probably closely related to one another. The causation of erythropsia in general was considered and reasons were given for believing that all forms were due to the colouration by the light stimulating the retina by blood, and this might be produced in several ways: (1) by transmission through the sclerotic, &c.; (2) by internal reflection from the lateral walls of the eyeball; and (3) by transmission through the anterior layers of the retina. The experiments of Birkhoff showed that erythropsia might occur when light was prevented from passing through the peripheral part of the eyeball, but these experiments did not exclude the third of the sources above-mentioned.—Remarks were made by Dr. F. W. EDRIDGE-GREEN and Mr. H. R. SWANZY.

Major M. T. YARR, R.A.M.C., gave an account of two cases of Eye Injury due to Lightning in South Africa. He stated that while encamped in the Orange River Colony in March, 1900, they were exposed to a violent thunderstorm. 1. Major H. had his tent-pole struck; at the same time he felt tingling down the right side of his head and right arm. He became partially unconscious but soon recovered, but the tingling persisted for some days. Four months later he discovered accidentally that he was practically blind in the right eye, and he was invalided to the base hospital. When seen by Major Yarr in August, 1900, he could only count fingers at three feet. There were several large hæmorrhages, evidently not of recent date, and patches of atrophy in the retina in the region between the superior and inferior temporal veins, with a few scattered and much smaller hæmorrhages in the periphery, some engorgement of the veins, pallor of the disc, and contraction of the arteries. The left eye was normal. 2. R. C., aged 25 years, a private in the 2nd Royal Berkshire Regiment, was employed on telephone duties at Belfast, Transvaal. On Oct. 18th, 1900, he was sitting at his "operating table" during a storm, when his instrument was struck by lightning. He fell, and on regaining consciousness he was unable to see. He had suffered no bodily injury but his instrument was bent. The next day he could distinguish between light and dark; about a week later he had perception of light in both eyes, could count fingers with the left, and the tension was normal. There was a large retinal detachment in the right eye, running in wavy whitish lines inferiorly. The left eye also showed a large detachment but spread over a wider area. The vision had previously been quite good.

The following cases and card specimens were shown:—

Dr. A. BRONNER: Growth of the Conjunctiva from an Old Man.

Dr. A. A. HUDSON: An Apparatus for Performing Massage on the Eyes by means of a Vibrating Hammer.

Major H. E. DRAKE-BROCKMAN, I.M.S.: A New Eye Speculum.

Mr. J. H. FISHER: Sub-retinal Cystic Swelling in the Centre of the Fundus.

Mr. INGLIS TAYLOR: Tubercle of the Iris.

Mr. RICHARDSON CROSS: Congenital Fibro-vascular Tumour Removed from the eye.

Mr. STANFORD MORTON: Double Coloboma of the Lens.

Mr. R. W. DOYNE: Hole in the Retina.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—A clinical meeting of this society was held on June 7th, Dr. F. Schacht, the President, being in the chair.—Several new members were nominated.—Dr. E. A. Saunders showed two cases of Cretinism. One patient was a little girl, aged six years, who had been under thyroid treatment for two years; the second was a boy, aged nine years, who had been only under treatment for three and a half months. The girl first came under his care at the age of four years and then presented the typical appearance of a cretin. She was two feet six inches in height and weighed one stone 11 pounds. She could walk but a few yards and could only say two words. Her face was swollen and heavy, her nose was broad, she had a protuberant tongue, pouting lips, swollen abdomen, dry skin, and sparse hair. The thyroid gland could not be felt. She was placed upon thyroid gland, one grain three times daily, and had been kept on this dose since. She had steadily improved. The child could now walk, run, talk freely, and was generally bright and intelligent. Her growth was remarkable. In the first year after treatment she grew seven inches and in the second year four and a half inches, and had now attained her normal height. The boy, who had the appearance of being about four years old, was in reality nine and a half years old. In the three months he had been under treatment he had grown one and a half inches and had become brighter and more intelligent. He still, however, had the typical appearance of a cretin, but in addition had an excessive rigidity of the muscles of the legs and an increased knee-jerk.—Dr. Leonard Dobson described a case of a child, aged two years, who had all the typical signs of a cretin but was improving remarkably under one grain doses of thyroid gland daily.—Mr. C. R. B Keetley thought that there were many cases of the cretinoid state undetected. He noticed a child in his orthopædic department whom he gave thyroid extract to with great improvement in the symptoms.—Dr. Buttar asked whether the treatment must be continued for life.—Dr. Saunders considered that treatment must be continued at least during the stage of growth, and in the majority of cases probably for life, although in some cases the treatment might be omitted from time to time.—Mr. McAdam Eccles showed a case of Spina Bifida and Hydrocephalus after operation. The patient was a male child, born in December, 1900, and at birth a large tumour three inches by two and a half inches was discovered over the lumbar vertebræ; it fluctuated and was covered with a thin bluish semi-translucent membrane and was distinctly bilobed. The child thrived and in about a month Dr. Stanley Melville, under whose care he was, reported that the tumour seemed to be undergoing spontaneous cure. About Feb. 3rd the tumour rapidly increased in size and at the same time there was some bulging of the fontanelles and separation of the cranial sutures. This steadily increased, although at times it was relieved by a discharge of clear fluid from the ear. The child was admitted into hospital in April when the movements of his arms were normal but there was some paralysis of the lower extremities. There was evident fluctuation between the cranial and spinal swelling. In order to determine whether the fluid was intra- or extra-ventricular Mr. Eccles made an incision over the left posterior lateral fontanelle and entered the subarachnoid space, but little fluid escaped. A trocar and cannula were introduced into the left lateral ventricle and a large quantity (10 ounces) of fluid immediately escaped, followed by collapse of the spinal tumour. The wound was then dressed and no bad symptoms followed. In three days the tumour and ventricles appeared to be as tense as ever and it was decided to attempt to create a permanent communication between the ventricular and subarachnoid spaces. Accordingly an incision was made over the right lower angle of the anterior fontanelle and the dura mater exposed and opened. A strand of horsehair of about 15 hairs, two inches long, tied at one end, was introduced by means of sinus forceps, the tied end of the drain being passed for an inch between the dura mater and brain substance and the free ends passed through the brain substance into the lateral ventricle. The incision in the dura mater was not closed, but the edges of the scalp were drawn together and sutured. The child had no symptoms after the operation. There had since been a steady diminution in the size of the head. On May 14th the *first* and second toes of the right foot were found to be ulcerated, and as there was no diminution in the size of the spina bifida it was punctured and the toes then improved. Mr. Eccles stated that in some cases a strand of fine catgut had been used, but this was too quickly absorbed, and in others a metal capillary tube, but this was, as a rule, followed by a fatal result.—Mr. Keetley suggested the probability of a blockage of the drainage channel by lymph and thought that the danger of a metal tube was more from the irritation and hardness of the metal than its permanency.—Mr. Eccles, in answer, said that he used horsehair as it appeared to him to be less irritating than metal. He knew of no case where a tube had remained in so long as the horsehair drain in the present case.—Dr. Ross Sinclair showed a man with an Anomalous Tumour of the Scalp. The man was aged 31 years, and on the upper and back part of the left parietal bone there was a horizontal groove, and another which ran downwards and backwards from the two former ones. When he depressed his head the space rapidly filled up with fluid and a large soft tumour appeared. When he resumed the upright position the swelling immediately disappeared. He had no symptoms and complained of nothing but an occasional feeling of pins and needles over the tumour. He had had no fits. There was a history of a fall when a few *months old*, but no notice was taken of it.—The President thought it remarkable that the change in intra cerebral pressure did not produce any symptoms.—Mr. Eccles said that this was probably a case of traumatic cephalhydrocele, the fluid probably being cerebro-spinal and coming from the subarachnoid space. The absence of any symptoms was remarkable. He did not think there would be any difficulty in closing the aperture by a plastic operation, but as there were no symptoms the operation seemed uncalled for.—Mr. Keetley agreed with Mr. Eccles's opinion of the case. He had never seen anything like it before.—Dr. Campbell Pope showed a case of Venous and Lymphoid Swelling of the Cheeks in a boy aged 12 years. It appeared suddenly after scarlet fever seven years ago. The cheeks were swollen, thickened, and of a bluish tint. The swelling was greater in cold weather. No suggestions could be given as to treatment, but it was possible that electrolysis might be beneficial.—Dr. Saunders thought that it was probably a nævoid condition, in which both veins and lymphatics were involved. It was a most remarkable case.—Dr. Pope also showed a man, aged 36 years, suffering from Abdominal Aneurysm, probably of the splenic branch from the aorta. The patient had suffered severely from membranous colitis for five years and to ease his pain had been accustomed to lean across a deal table, pressing the abdomen hard against the wood. There was some history of syphilis. He could not now lie down because of the pain and pulsation.—Dr. Saunders asked the nature of the man's work.—Dr. Pope, in reply, said that the patient was originally sergeant-instructor of gymnastics in the army but had lately been engaged in laundry work. He had lost weight greatly. Olive oil in half-ounce doses had been of most service in treatment of the colitis. He could not take iodide of potassium as it increased his pain.

Otological Society of the United Kingdom.—A meeting of this society was held on June 10th, Sir W. B. Dalby, the President, being in the chair.—Mr. W. C. Bull showed a patient upon whom the complete Mastoid Operation had been performed followed by Skin-grafting. The hearing power had improved immensely after operation.—The President, Mr. Cheatle, and Mr. Ballance discussed the case.—Mr. R. Lake showed a case of Post-operative Atresia of the Meatus in an adult.—Mr. Baber referred to a similar case where he had performed Stacke's operation.—Dr. H. Tilley asked for any suggestions as to how to avoid post-operative meatal atresia.—Mr. Ballance referred to a case where he had drawn the pinna forward and removed a portion of the postero-superior bony wall of the meatus, cutting away also a considerable portion of the thickened cartilaginous meatus. Subsequently the raw surfaces were grafted with satisfactory results.—Dr. Dundas Grant thought that in such cases epithelial grafting might prove useful.—Dr. StClair Thomson showed a female patient in whom an Acute Mastoiditis had been cured by the employment of a Stacke-like operation.—Dr. Milligan considered that the case was not one of primary mastoiditis but of chronic disease with an acute exacerbation.—Dr. Dundas Grant concurred in this view.—Mr. A. H. Cheatle showed a case of Tuberculosis of the Temporal Bone in an adult.—The case was discussed by Dr. Milligan, Dr. Urban Pritchard, Dr. McKenzie Johnston, Mr. Ballance, Mr. Lake, and Dr. Jobson Horne.—Mr. Secker Walker read the notes of a case of Septic Thrombosis of the Lateral Sinus, Mastoid Disease, and Post-pharyngeal Abscess followed by recovery after extensive operative interference. A portion of the cochlea had come away as a sequestrum, but a fair amount of hearing was still retained upon the affected side.—The President and Dr. Pritchard discussed the case.—Dr. Adolph Bronner showed microscopical sections of two cases of Epithelioma of the External Auditory Meatus.—Dr. Milligan gave details of a case of Fatal Hæmorrhage from the Ear occurring in a child, aged two and a half years. The internal carotid artery was eroded externally to the temporal bone and was lying in an abscess cavity which communicated with the external auditory meatus. The common carotid artery upon the same side had been successfully tied by Mr. H. Lund. Death took place, however, two days subsequently from profuse arterial hæmorrhage.—Dr. Pritchard read the notes of a case of Temporary Loss of Audition and Equilibrium from an Overdose of Quinine.—The case was discussed by Dr. Barkan (San Fransisco) and Dr. Dundas Grant.—Mr L. A. Lawrence showed specimens of a Red Vegetable Growth removed from the External Auditory Meatus.—Mr. Macleod Yearsley showed macro- and microphotographs of a case of Papilloma of the Auricle.—Mr.

W. C. Bull showed a specimen of Central Necrosis of a Portion of the Semicircular Canals.—Mr. C. H. Fagge showed a specimen of an Exfoliated Cochlea.

Reviews and Notices of Books.

An Introduction to Physiology. By WILLIAM TOWNSEND PORTER, M.D., Associate Professor of Physiology in the Harvard Medical School. Cambridge, Mass.: The University Press. 1901. Pp. 314.

FEW will question that the substitution of practical exercises in the place of mere book study has proved of immense value in education. In physics, in chemistry, in anatomy, in botany, every experienced teacher and examiner knows well the difference between the student who has painfully committed his subject to memory from some text-book and him who has acquired his knowledge in the laboratory, the field, or the dissecting-room. The present work is intended as a guide to the young physiologist. The idea of making the student perform the simpler experiments of physiology for himself is not new; various treatises, such as the Handbook of Physiology by Several Authors, the Practical Physiology of Foster and Langley, the Manual for the Physiological Laboratory of Harris and Power, the Physiology, Experimental and Descriptive, of Cotton, and others, all have the same object in view. The difference in the value of these works is the manner in which the instruction is given. Dr. Porter has placed before the student a series of exercises which if he carries out with his own hands will supply him with the key to physiological inquiry, or, in other words, will furnish him with all its fundamental data.

The subject-matter of the first part of the book is the behaviour of nerve and muscle under the influence of stimuli that can be applied by the student with comparatively simple and very inexpensive apparatus. Naturally the author begins by giving directions as to the method to be adopted in making a nerve-muscle preparation and a short account of the instruments which are required. The effects of the electric stimulation of muscle and nerve by the continuous and the interrupted current are well given and this is followed by a section on chemical and mechanical stimulation. Irritability and conductivity are then discussed, which is again followed by the electromotor phenomena of muscle and nerve. The second part of the book is occupied with the consideration of the mechanics of the circulation and the innervation of the heart and blood-vessels. Both parts are divided into short chapters or sections each of which is devoted to a particular experiment, and the student is led on by easy steps from the more simple to the more difficult physiological experiments. In the earlier experiments described the independent irritability of muscle is shown by instructing him in the mode of obtaining a nerve-free muscle—a muscle with degenerated nerve—and by paralysing the nerve-endings with curare. Then other experiments show that irritability and contractility are separate properties of nerve; that the specific irritability of nerve is greater than that of muscle; that the same nerve may conduct impulses both centripetally and centrifugally, and so on. At the close of each section the instruments and apparatus required for the demonstration are shortly given, as, for example, for the experiments just referred to the following are mentioned: normal saline solution, bowl, towel, pipette, glass plate, dry cell, inductorium, key, wires, frog with sciatic nerve degenerated, and more than 20 other articles. A great saving of time and temper is thus effected; everything being at hand there is no interruption to run after a piece of string or a muscle clamp, or some trifle without which the experiment is apt to fail. The part devoted to the mechanics of the circulation contains a description of a simple artificial scheme, and gives, besides other information, experiments explanatory of blood-pressure, the characters of the cardiac muscle, the heart-sounds, the pulse, and the chief phenomena of cardiac stimulation and inhibition. Many, if not all, of these experiments can be performed by a student of very limited means, a kymograph and an inductorium being perhaps the most expensive of the instruments required. In conclusion, we must congratulate Dr. Porter on the clear exposition which he has given of the fundamental experiments of physiology, and we sincerely trust that his work will receive encouragement from the teachers of physiology in this country.

Aphorisms, Definitions, Reflections, and Paradoxes, Medical, Surgical, and Dietetic. By A. RABAGLIATI, M.A., M.D., F.R.C.S. Edin. London: Baillière, Tindall, and Cox. 308 pp. Price 7s. 6d. net.

THE existence of this book is due to Dr. Rabagliati's conviction that in the realms of medicine and surgery we have collected a large number of observed facts and have insufficiently exercised our reason upon them. The writer is of opinion that the time has come to formulate a philosophy of medicine, to generalise upon a large number of careful observations. His book is intended to be "a preface to the study of the theory and art of medicine," and it is intended also to remedy confusion of nomenclature and to "obviate conflicts of opinion and practice" among even the most distinguished exponents of the arts of medicine and surgery. We do not admit the author's premiss that there is little use in further observation as compared with the use in drawing general deductions on which to found principles of practice, nor can we admit that there has been, generally speaking, a deficiency of theorising on the part of medical writers as compared with a relation of observed facts. Supposing, however, that we granted the utility of sweeping generalisations in medicine and surgery, subjects which from the varying and human nature of their objects of study admit very little of generalisation, we should find not much to extol in the execution of the task in the book before us. There is an unfortunate profusion of verbiage in Dr. Rabagliati's work, a tedious amount of repetition, a very limited view, and some remarkably incorrect statements. As regards the confusion of nomenclature that is to be removed for us what confidence can we place in an author who devotes several pages to the demonstration of the superiority of his new term *initis* in place of the old "rheumatism" when he gives no clear idea of exactly what affections the word is to express, or how can we hope for simplicity and clearness in the doctrines of a writer whose pages teem with "poly- and pollaki-siteism" and such remarks as this—"This overgrown or hypertrophied tissue is very labile and easily breaks down with excessive combustion or oxidation."

The only idea of real worth that we have been able to extract from the book is the familiar one that disease is largely due to unwise feeding. The deduction that Dr. Rabagliati is constantly arriving at is that poly-pollaki and kako siteism or -potism are to blame for any disorder to which he is alluding. Some of the cases which he quotes in support of his contention are so remarkable and so directly opposed to the common experience that the author would have been wise to have given them in greater detail. Dr. Rabagliati's views on the causation of disease, from cancer to corns, is that all are due to mistakes in the nature or quantity of food. He has cured dysmenorrhœa by restriction of diet and would equally have routed carcinoma had the cases met him earlier; anæmia of all kinds is a matter of overfeeding, and the specific fevers are set up by inflammations due to too free ingestion. The aphorisms in this work are obvious, the definitions futile, and the reflections involved.

The Commonwealth of Cells. By H. G. F. SPURRELL, B.A. Oxon. London: Baillière, Tindall, and Cox. 1901. Pp 126. 67 Illustrations. Crown 8vo. Price 2*s.* 6*d.*

THOSE who have read Verworn's General Physiology will appreciate the title which Mr. Spurrell has chosen for his collection of essays on the problems of the human organism, for the central idea of that masterly work has been the elaboration of the conception of the human body as an aggregation of cell-units working together for the common weal under the administration of the nervous system. Mr. Spurrell's task has been to simplify this philosophical conception to the level of intelligence possessed by that ever-increasing section of the public which takes a keen interest in the workings of the body and the material basis of the mind. That this task has been completed without the aid of technical expressions and strictly scientific nomenclature reflects the greatest credit on the author's ingenuity. The class of readers to whom these essays will more particularly appeal will be students of philosophy and of branches of natural science other than physiology. The story of the human body as unfolded in these pages reads rather as a romance than a tale of dry bones and hard facts, for the author has an enviable facility of expression and a happy knack of appealing to the imagination of his readers. Since the time of Huxley's Physiology it is probable that nothing has been written which is so likely to popularise this fascinating branch of science as this series of essays by Mr. Spurrell. When Huxley wrote his monumental text-book the science of physiology was in its infancy and, to make use of an Irishism, was more anatomical than physiological. To-day physiology is brimful of the most intensely interesting applications of chemistry. Structure, both microscopic and macroscopic, is but the alphabet which enables us to understand the really interesting problems of life. It is these latter problems rather, the A B C of the science, which are dealt with in these pages. Mr. Spurrell is eminently up to date and his essays contain references to many important discoveries only recently published, and, further, the chemical basis of protoplasmic activity is reduced to the simplest terms so far known to science, but the process of reduction is led up to by such gradual and easy stages that the reader is unconsciously introduced to problems which have but recently defied solution.

It is not too much to say that no intelligent and educated person can read these pages without considerable profit. Those who possess previous knowledge of physiology will find their views all the clearer and those who possess no such knowledge will appreciate this lucid introduction to the subject. It will in no way weaken our praise of this charming little collection of essays if we point out that on page 30 it is incorrectly stated that "the distressing symptoms of goitre supervene on the surgical removal of the thyroid gland"

LIBRARY TABLE.

Atlas und Grundriss der Traumatischen Fracturen und Luxationen. (Atlas and Elements of Traumatic Fractures and Dislocations.) By Professor Dr. H HELFERICH of Kiel. With 79 Plates and 158 Figures in the Text by B. KEILITZ (Artist). Fifth revised and enlarged Edition. Munich: J. F. Lehmann. 1901. Pp. 338. Price 12 marks.—As this is the fifth edition of this well-known work it is very evident that it has been largely appreciated, and even two English versions of it have appeared. In the present edition nine Roentgen-ray skiagrams and 21 illustrations in the text have been added to the already large number. The author, however, has been careful, as he tells us in his preface, to deal briefly with all the rarer fractures and dislocations so as to maintain the elementary character of the work. The difficulty of interpreting the products of the Roentgen rays has induced Dr. Helferich to have taken some skiagrams of normal joints, and Dr. Werner prepared from these some explanatory diagrams which serve to make as clear as possible the normal relations of the bones as "projected" on a sensitive plate. In some points we are inclined to think that this volume is the most successful of a very excellent series.

The Treatment of Fractures. By CHARLES LOCKE SCUDDER, M.D., assistant in clinical and operative surgery, Harvard University Medical School, assisted by FREDERIC J. COTTON, M D. Second edition, revised. With 611 Illustrations. London and Philadelphia: W. B. Saunders and Co. 1901. Pp. 460. Price 19*s.* net —The most striking characteristic of this work is the profusion of illustrations, for they are more than 600 in number, although there are only 460 pages of text. No small proportion of the illustrations consists of diagrams representing fractures and the methods of applying splints, and these are so clear that it would be difficult indeed, for anyone to misunderstand the treatment advocated. Every point that could possibly be represented graphically has its illustration. An example will serve to show the thoroughness with which this has been done; in the chapter on Fracture of the Vertebræ there are 29 illustrations; 11 of these represent the bony lesions; four illustrate the damage to the spinal cord; four represent the normal anatomy of the spine, the cord, and the spinal nerves; two show how to examine the cervical vertebræ for fracture, by means of a finger introduced into the pharynx; seven are diagrams indicating the area of anæsthesia in spinal fracture; and the remainder illustrate the attitude of the patients. There is really very little that needs to be said as to the details of the work, for it is uniformly good. The author speaks very highly of Cabot's wire splint, which is but little known in this country—certainly not so well known as it deserves to be. The plaster-splint is recommended also, but the plaster-of-Paris roller appears to be the form chiefly employed. A very valuable chapter is that devoted to the interpretation of Roentgen-ray pictures. It is written by Dr. E. A. Codman and puts very clearly the difficulties which there are in understanding exactly what is seen in a skiagram. The practical value in fracture of the x rays is well described and the writer shows that we now know much more about many fractures—for instance, it is recognised that the styloid process of the ulna is fractured in a very large proportion of cases of Colles's fracture, some say in as many as 80 per cent. The question of danger from the x rays is discussed, and some experiments of Professor Elihu Thomson on himself are recorded by which he caused severe inflammation of a finger; the conclusion is arrived at that the skin should never be less than 12 inches from the Crookes's tube and that the exposure must not be too prolonged. A useful bibliography of the recent literature of fracture is appended to the volume.

Annals of Ophthalmology. H. V. WÜRDEMANN, M.D., Managing Editor. January, 1901. No. 1. St. Louis, Mo.: Jones H. Parker. Price 18*s.* per annum. Published quarterly.—A large portion of the annals is occupied with reveiws and abstracts of papers and memoirs that have appeared in other journals, but there are several original articles. Amongst these is one on the Bacteriology of the Conjunctival Sac and its Bearing upon Surgical Procedure, by Dr. P. Chalmers Jameson of Brooklyn, N.Y. The bacteria found in the sac, of which pure cultures were made by Dr. Jameson, were the staphylococcus pyogenes aureus, staphylococcus pyogenes albus, staphylococcus epidermis albus, aerobacillus citreus, xerosis bacillus, bacillus coli communis, and bacillus subtilis. These occurred in greatly varying frequency in different cases and under normal conditions do not propagate, the eye under ordinary circumstances being possessed of the means of antagonising bacterial growth. Dr. William Posey of Philadelphia and Dr. Edward Shumway describe a case of Alveolar Sarcoma of the Choroid. Dr. Edward Jackson of Denver, Colorado, in a short article shows that homatropin is a very reliable cycloplegic. Dr. L. Webster Fox of Philadelphia, Pa., recommends grattage of the conjunctiva for troublesome cases of spring catarrh. Dr. Carl Schulin of Helena, Mont., advocates the view that myopia and astigmatism are induced by the pressure of the lids and the conditions present during sleep; and lastly, there is an article by Dr. M. F. Weymann of St. Joseph, Mo., on Contusions of the Eye.

Archives of the Rœntgen Ray. Vol. V., Nos. 1 and 2 London: Rebman, Limited. August, 1900, and January, 1901. Price 4*s.* each number.—The first of these numbers contains an interesting paper by Dr. R. N. Wolfenden and Dr. F. W. Forbes Ross on the Effects produced in Cultures of Micro-organisms, including Tubercle Bacilli, by Exposure to the Influence of an X-Ray Tube. The authors discuss the various factors which may possibly influence their growth, such as (1) the x rays, (2) the cathodal rays, (3) the disturbance of the electric field, and (4) the production of ozone, increase of temperature, &c. They sum up their conclusions as follows. It is impossible by any ordinary long exposure or exposure to a high vacuum tube to kill growths of bacilli or cocci, the apparent death in cultures so treated being due to exhaustion of vitality from excessive proliferation. These observations appear to be at direct variance with the results which are being universally obtained in the treatment of lupus with the x rays. A new apparatus for localisation is described by Dr. Rémy of Paris, with very good illustrations of the method of using the instrument. Mr. James Wimshurst, F.R S , communicates a very full account of the development of his Influence Machine. This number also contains the President's Valedictory Address. The skiagrams at the end of the number are very good. Dr. Hugh Walsham contributes two skiagrams of Renal Calculi before and after the Removal of the Kidney. The second case is instructive as showing that we may be deceived as to the number of stones shown on the plate taken before operation. In this case the shadow of three stones are distinctly seen, but on taking a skiagram of the kidney after removal numerous stones are shown varying in size from a small bean to a pin's head. This is the first instance we have seen of a kidney with calculi radiographed after removal from the body. Staff-Surgeon Bassett Smith gives a good skiagram of Fracture of Both Clavicles. The second number contains the opening address of the new President, Dr. John Macintyre of Glasgow, in which he reviews the Progress of the Science during the Past Year. Mr. Mackenzie Davidson gives a clear description of his very ingenious Stereoscopic Fluoroscope and Rotary Contact Breaker. Some very good skiagrams, mostly of bone disease, complete the number.

Golden Rules of Aural and Nasal Practice. By PHILIP R. W. DE SANTI, F.R.C S. Eng., senior surgeon to outpatients, aural surgeon and lecturer on minor surgery and aural surgery, Westminster Hospital. Bristol: F. Wright and Co. London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. Pp. 87. Price 1*s.*—Mr. de Santi has issued under the above title a short synopsis of these subjects. Of the two the nasal rules are the better, though not the more complete. The aural half contains some evidences of carelessness which do not enhance the value of the book—as that the ear-drum is divided into two quadrants, and that the surgeon should syringe along the upper or lower wall of the meatus instead of upper and posterior. Neither of these is quite a golden rule. To students who are anxious to obtain rapidly some information the book will be a distinct aid.

Burdett's Hospitals and Charities, 1901. By Sir HENRY BURDETT, K C B. London: The Scientific Press. Price 5*s.* Pp. 1050 —This is the twelfth issue of Sir Henry Burdett's invaluable compilation and we really can say nothing new about the book, except that it is some 100 pages larger than its immediate predecessor. For information about hospitals, nursing homes, charities, hospital finance, convalescent homes *et hoc genus omne* there is but little known which cannot be found in "Burdett." He is the Whitaker of hospitals. We are glad to see a warning on p. 176 against the wiles of "professional philanthropists." The heart-rending appeals of these gentry must be familiar to all our readers, who probably know how to appraise them at their true value, but evidently some are still deceived, and to these Sir Henry Burdett's warning may be useful.

Helwân and the Egyptian Desert. By W. PAGE MAY, M D. Lond., &c , with articles by Professor SAYCE and Professor SCHWEINFURTH. London: George Allan. 1901. Pp. 110. Price 3*s* —This is an excellent little book and much above the ordinary type of health-resort guide. Its three chief sections are (1) that on the Archæology of Helwân and the District by Professor Sayce, a most interesting and instructive article; (2) that on the Flora of the Desert and a Description of Desert Conditions in Regard to Floral Life by Professor Schweinfurth; and (3) that on the Special Advantages of Helwân as a Health resort in Winter. But the little volume contains much information also in reference to the amusements and sights of Cairo, is embellished with numerous and excellent photographs, and contains detailed information as to the different routes to Egypt and their respective advantages or disadvantages. It has also numerous tables of meteorological observations which no one is likely to read although their results are undoubtedly interesting and important. It is evident that Helwân is very well suited to become a favourite health-resort and also a winter resort for the healthy who are content to lead a quiet, wholesome life amid the remains of a remote but fascinating civilisation. In any case this book is to be recommended as one containing much reliable information in reference to the climatic winter conditions in Egypt generally and may be useful in helping intending visitors to make up their minds whether to go further south or to be content with a sojourn in what is undoubtedly the most accessible health-resort in Egypt.

ROYAL INSTITUTE OF PUBLIC HEALTH.—The provisional programme of the arrangements of the congress of the Royal Institute of Public Health, which will be held at Eastbourne from July 25th to 30th, has just been issued. The railway companies will issue return tickets to Eastbourne to delegates at a fare and a quarter, but to obtain these special tickets a form, which will be sent by the honorary secretaries, must be presented at the booking-office by those attending the congress. The London, Brighton, and South Coast Railway will issue return tickets from Eastbourne to neighbouring places to delegates at a fare and a quarter during the congress. Drives will be organised to various places of interest in the town and neighbourhood, and visits will be made in connexion with sanitary matters, drainage, &c. Special facilities are being arranged fo [illegible] th entrance to Devonshire Park, [illegible] bs in Eastbourne, the Royal Eastb [illegible] Golf Clubs, the Eastbourne Cricket and Football Club, the Upperton Lawn Tennis Club, the Compton Croquet and other clubs. A special guide-book (with maps) is also being prepared for delegates.

THE LANCET.

LONDON: SATURDAY, JUNE 22, 1901.

The Meeting of the General Medical Council.

CONSIDERING the number and the delicacy of the questions which had to be discussed by the General Medical Council, we congratulate it upon the fact that its late meeting lasted only seven days, instead of eight or nine as did the two immediately preceding sessions. By common consent, all the more striking for being unexpressed, the subject of the registration of midwives was ignored. The reputation of the Council will in future turn very much on the way in which it can arrange its business and clear its programme of recurring questions. If it were not for two or three subjects which seem to fascinate the Council perennially, and to give occasion for endless discussion, there would be no reason that we can see why the session should cover more than five or six days, which would be the simplest and most creditable solution of its financial difficulties. At the same time it must be remembered that to ignore a question is not to settle it. What is required is progress. The best thing the Council can do is to come to right decisions, and the worst is to talk without coming to any decisions at all. The attempt to save time in the recent meeting was most evident in the arrangement of business and in bringing on the disciplinary work of the Council on the second instead of the third day of the session, and we welcome with pleasure evidence of a growing sense of the discredit accruing to the Council from fruitless discussions handed on hopelessly from one session to another.

There were two great questions before the Council this summer by the handling of which it will be very much judged, and in our opinion the Council cannot be wholly congratulated on its attitude in either case. The first of these questions was the serious difference between the English Royal Colleges and the General Medical Council with reference to the recognition of schools for the teaching of the preliminary sciences—chemistry, physics, and biology. This is now the third year in which the Council has had this most important subject before it. Some notion of the depth to which discord has reached may be got by considering that the Royal Colleges now no longer require candidates for their diplomas to be registered as medical students by the General Medical Council, though all parties in the Council, including distinguished Fellows of the Royal Colleges, regard such registration as a chief instrument in the Council's hands for controlling the preliminary education of the profession. It is not contended on either side that the Council has the power to enforce the registration of medical students, but all agree that registration has been very beneficial and that the action of the Royal Colleges in abandoning it deals a serious blow at the authority of the Council and its influence over education through registration. The risk to the system of registration brought about by the new regulations of the Royal Colleges, which no longer require registration of their students, has put into the shade the original difference between the Colleges and the Council. This new development of the dispute excited far more feeling in the Council than did the original question as to the right of the Council to dictate to the Colleges as to the bodies from which teaching in science should be accepted. But the question must be considered in its original form—Has the General Medical Council the right to demand that before recognising institutions for teaching science the Colleges shall see that they are *approved* by the General Medical Council? Which side is to blame for the complete *impasse* now reached is another point. The Colleges, ignoring the demand of the General Medical Council and its system of registration, acted, as they allege, in discharge of a function and a responsibility imposed on them by charter: the General Medical Council acted without the support of law, but with the moral authority of a council of medical education. The Council, we think, should have come to a decision, and the majority of its members expected the matter to be faced. It seemed probable at one time that a practical settlement would be reached. And here we have to recognise a new force in the Council in the person of Dr. NORMAN MOORE, whose familiarity with the facts of scientific teaching in general schools as well as with the facts affecting the efficiency of such teaching in medical schools and universities was made obvious directly he took part in the debate. Dr. NORMAN MOORE'S speeches, especially the speech of Saturday, June 8th, made a great impression on members of the Council, even on many, such as Sir CHRISTOPHER NIXON, who have always stoutly opposed the view of the Royal Colleges, chiefly on the ground that they were endangering the five years of the medical curriculum. Dr. NORMAN MOORE made it clear that the Colleges had never in one instance tampered with the requirement of the Council that five years should elapse from the time of registration as a medical student before qualification, and that this period should be spent in medical as distinguished from preliminary education. So strong was the impression thus produced that it went far to convince the Council that there was no practical difference between the objects of the Royal Colleges and those of the Council. The time seemed ripe for a resolution that would have conciliated both sides and led to a way out of the *impasse* when Dr. MCVAIL propounded a motion that the new regulations of the Royal Colleges, which had been supplied in full to the Council, "did not afford evidence that these courses of study were in all cases sufficient." He moved to this effect, the President ruled the motion to be in order, and Dr. MCVAIL only failed to carry it by two votes. The Council then contented itself with doing no more in the matter than sending to the Education Committee two proposals, of Dr. BRUCE and Mr. BALL respectively, for including chemistry, physics, and biology for the future in the subjects to be passed before the commencement of a four years' course of medical study. The complete *impasse* between the Royal Colleges and the Council remains and we have before us the prospect of interminable discussion on the subjects involved

But the most important subject with which the General Medical Council had to deal this summer was that of its own somewhat complicated finances In this matter it had sought *the advice of an expert, and the report of the* expert was in its hands a month before the meeting The great point brought out in that report was the existence of a tendency to such an annual excess of expenditure over income—amounting last year to £1037 11*s* 1*d*—as to involve the gradual diminution of the surpluses of the Branch Councils funds and perhaps their extinction, as in the case of the Irish Branch Council The expert recommended practically two things—first, that the distinction between the Council and its Branches for financial purposes should be disregarded, and secondly, that the fees of the members of the Council should be reduced Though some of the members think seriously of the finances of the Council none of them mentioned the suggestion of the expert that the fees should be reduced The only thing done by the Council was to refer the matter to a new committee with a curious special suggestion "to consider what amendments, if any, are necessary in the Medical Acts in order that the relations between the Council and its branches may be readjusted and the financial position of the Council placed on a satisfactory basis" This resolution does not, we hope, represent the mind of the Council, for it indefinitely postpones the financial adjustment which might easily be achieved We think that the Council failed grievously to set a good professional example of the respect due to an expert, for they not only did not follow the opinion of their financial adviser, but they did not even discuss it

Medical Defence and Protection.

THE annual reports of the Medical Defence Union and of the London and Counties Medical Protection Society for 1900 which have recently been received by us, are worthy of the attention not only of the subscribers to these bodies but of every practising member of the medical profession residing in Great Britain and Ireland We can but ask those practitioners who do not insure in any defence or protection society to reconsider their position and we may (to quote from the report of the Medical Defence Union) remind them that "no qualified member of the profession can with any certainty say that he is absolutely secure from attacks from unscrupulous persons however able his treatment of the cases involved may have been" The report goes on to say "These attacks are not confined to the practice of general practitioners; consultants of the highest position both in medicine and surgery have been obliged to ask the help of the Medical Defence Union in defending their professional honour from unjust and unjustifiable attempts to disparage it by charges of alleged malpraxis'

Opening with these important words of caution the Council of the Medical Defence Union proceed to show by various illustrative and interesting cases in what way those practitioners who have been attacked and have fortunately been members of the Union can be defended at the least possible trouble and anxiety to themselves personally and at no cost beyond the small subscription of 10*s* per annum. The report also touches upon other matters of interest dealt with during the past year, for instance, the Lunacy Act with all its attendant evils and dangers to the unsuspecting practitioner who may be induced "for the sake of gain" to take into his house as a resident patient one who, although mentally deficient, is not in his opinion and that of others "certifiable' and yet later finds himself summoned by the Treasury, acting on behalf of the Lunacy Commissioners, for penalties under the said Act Mr W E HEMPSON, the solicitor to the Union, in his particular section of the report draws special attention to the risks run under the Lunacy Act as at present constituted, and we cannot better point a moral and adorn a tale than by quoting the words which he uses "By Section 341 of the Lunacy Act, 1890, the word 'lunatic' is defined to mean 'an idiot or person of unsound mind' By Section 315 (1) of the same Act it is enacted as follows 'Every person who, except under the provisions of this Act, receives or detains a lunatic or alleged lunatic in an institution for lunatics, or for payment takes charge of, receives to board or lodge, or detains a lunatic or alleged lunatic in an unlicensed house, shall be guilty of a misdemeanour and in the latter case shall also be liable to a penalty not exceeding £50 Upon a strict construction of these two sections, therefore, any person who for payment takes charge of, or receives to board or lodge, or detains a lunatic or 'alleged lunatic' in an unlicensed house commits an offence within the meaning of the section That a lunatic is a person of unsound mind is a proposition which, I assume, may be accepted without discussion, but that every person who is of unsound mind is thereby to be pronounced a *lunatic* and *to be controlled and treated as* such is, in my opinion, a matter which was not contemplated in the Act nor intended to be enacted thereby The risk therefore is not confined to medical men, but would apply equally to the proprietor of an hotel or boarding-house" Mr HEMPSON suggests that further legislation is required to remove from the path of medical men a danger which, in his opinion, was never contemplated by the original act, and he suggests that an extension of the word "lunatic" to mean a person of unsound mind and medically certifiable as "a proper person to be taken charge of and detained under care and treatment" would solve the difficulty This proposal appears to be a sound one, and it behoves *those who are interested to take the* necessary steps to remove the existence of a danger both to the public and to the profession It appears from the report that the number of legal cases referred by the Council of the Union to the solicitor was 140, and that of these cases 49 were actions for libel and slander Of the remainder 26 involved the defence of members of the Union in actions either threatened or brought against them for *malpraxis*, 48 related to actions taken or defended in matters other than slanderous or libellous, and 17 cases were actions against unqualified practitioners or for the purpose of the suppression of such practice Some illustrative cases dealt with under the heading of "Libel and Slander" are given by the Council, and in each and every case the Union was victorious. The Council deplore the inability of recovering costs from persons who without means can yet, with the aid of speculative solicitors, move the ponderous wheels of the legal machinery, or, in other words, bring actions which must be defended at whatever cost to the Union.

The schedule of cases occupies as usual many pages of the report and is indicative of the varied matter which comes before the executive to be dealt with daily. The funds of the Union are again found ample to meet the annual expenditure—a loss of about £100 owing to the defalcations of a trusted clerk being covered, it is reported, by the policy of guarantee wisely taken out by the Council.

The London and Counties Medical Protection Society has not such a large roll of members as the Medical Defence Union, but has nevertheless performed excellent and useful work. Especial attention has been paid to the interests of the dental section, as was shown by the charges brought against certain dentists practising at Nottingham before the General Medical Council at the recent sessions, when the secretary of the society appeared to prosecute, and amply justified the course adopted by the society in bringing the matter of objectionable advertising before the Council. Unceasing efforts have also been made by the society to suppress unqualified practice, but unfortunately the highly unsatisfactory state of the law enables quacks to continue their evil practices with impunity. In no department of commercial enterprise can money be more easily obtained by false pretences than by quacks purporting to cure all diseases by inventions of their own, and it is very seldom that a conviction can be obtained in spite of repeated attempts on the part of the two bodies to whose reports we are referring. Drastic alterations in the present laws are needed, but the legislature shows no signs of protecting the public from some of the greatest swindlers of modern times. Unfortunately, it is precisely that class of the community which can least well afford it that is mainly victimised—namely, those who are dependent upon their daily work for their livelihood; the better educated are, as a rule, not so easily deceived. Little wonder is it, then, that the secretary of the London and Counties Medical Protection Society was obliged to state that the council of the society had not seen its way to carry out the prosecution of a quack during 1900. The society, however, will doubtless not diminish its endeavours to bring about an alteration in the existing laws, so that greater facilities will be given to lessen an evil which cannot be exaggerated.

In conclusion, we would strongly urge upon practitioners throughout the kingdom the importance of belonging to one or other of the two bodies whose work we have been referring to; by so doing the power of these associations will be greatly increased to the advantage not only of the individual members but of the profession in general.

◆

The British Congress on Tuberculosis.

THE British Congress on Tuberculosis, which will be held in London from Monday, July 22nd, to Friday, July 26th, is attracting widespread interest and attention. Numerous foreign delegates will be present to add their testimony to the value of the investigations which are everywhere being made into the methods of combating one of the most universally prevalent and fatal maladies and one which attacks man and beasts. Our knowledge of the nature of tuberculosis has made great strides during the last two decades, and an assemblage of scientific men met together with the simple purpose to set forth individual observations and to discuss the many diverse problems connected with the disease—to take stock of the state of opinion as regards the causes, pathology, treatment, and prevention of tuberculosis—cannot fail to be of the greatest benefit not only to individuals but to mankind in general.

The public are very quick to take up any new theory or method of "cure" of tuberculosis, especially the pulmonary variety, which may be introduced, and all the more if it be injudiciously lauded by the lay press. This unfortunately not infrequently happens, and therefore a congress of genuine investigators is of real importance as the proceedings will tend to set in their proper place the therapeutic measures which have not fulfilled the hopes at one time expressed for them, and to bring more into prominence those which extended experience has shown to be successful. The "open-air" treatment of tuberculosis will thus receive considerable attention and naturally the much-disputed influence of climate will be carefully discussed. There are certain aspects of tuberculosis which it is important that the laity should know something about. The words used by His Majesty the KING, then PRINCE OF WALES, in opening the International Congress of Hygiene in 1891 have become historical. "If preventable, then why not prevented?" This phrase is particularly applicable to tuberculosis, but the general public require to be educated before the necessary measures can be carried out by which, without undue interference with the "liberty of the subject," chances of infection may be reduced to a minimum. Twenty years ago heredity was considered one of the main etiological factors in tuberculosis. The discovery of the pathogenic bacillus by Professor KOCH greatly reduced the importance of heredity, and some authorities would seem to go so far as almost to discard it. This, however, is carrying bacteriological views to an extreme. The bacillus alone is obviously not the sole cause of the disease, otherwise the human species would long ago have become extinct. The exact nature of the second etiological factor (there may be several) we are not as yet acquainted with; certain terms are employed concerning it which are somewhat vague, such as "suitable pabulum" or "deficient resistance"; and probably heredity plays no inconsiderable part, although not so important a one as was originally thought, in conferring on the offspring of tuberculous parents a diminished power of resistance to the attacks of the bacillus. An overpowering predominance of opinion, however, points towards infection as the most powerful agent in the spread of the disease; and while the medical profession can do much towards lessening the mischief by observation of the habits of their patients and careful tuition, the carrying out of the hygienic instructions rests mainly with the sufferers themselves The open air establishments which have been, and are being, formed in various parts of the country serve not only as places where patients undergo treatment, but act as most valuable schools to educate those who might spread infection as to the measures they must adopt to prevent themselves from becoming objects of danger to their fellow creatures The conclusions arrived at by the members of the Congress will doubtless accentuate the importance of such institutions and will happily support the endeavours which are being made by public bodies and societies to spread the necessary information amongst all classes of the community A further use of congresses such as the one which is to meet in London next month is that the resolutions which they pass may lead to important representations being made to the Legislature There is ample scope for such in regard to tuberculosis, and the many important subjects to be discussed by the Veterinary Section and the State and Municipal Section of the British Congress on Tuberculosis may, we hope, lead to the introduction of certain obvious measures against the spread of tuberculosis both in man and animals

Annotations.

"Ne quid nimis"

THE ARMY MEDICAL SERVICE

THERE is still no news to report with regard to the intentions of the War Office The Secretary of State for War maintains his sphinx like attitude and the situation can perhaps best be described in the words of Jeames de la Pluche as "wropt in mystry" What possible benefit there can be to anybody in keeping up this mystery we are at a loss to understand and nobody seems to possess any sort of clue to the reasons which dictate the curious policy On one point all members of the profession whose views we have ascertained seem to be agreed—i e, that the course pursued by the War Office is not very complimentary either to the Army Medical Service in particular or to the profession in general Why cannot the name of the new Director General be announced? If it be that the appointment is to be held over until a committee has made inquiry and completed its report the delay would be at all events intelligible (though it might suggest some doubt as to the expediency of allowing Director General Jameson to retire at the present moment) We have excellent reason to believe that this committee of experts has already been constituted Why are not the names of its members made known to the public? We cannot understand the spirit of secrecy which prevails and we deprecate it very strongly At the dinner of the Royal Army Medical Corps on Monday evening last more than one speaker alluded to the want of sympathy that was shown in certain quarters with the Army Medical Service This want of sympathy and, we may add, of confidence, is only too well illustrated by the attitude adopted by Mr Brodrick who may have adequate reasons for delay, but if he has he owes it to the profession to explain those reasons As we have previously said, all the doubts and uncertainty that prevail are doing no good The profession is anxious to supply the country with the best medical service in the world, and it will do so if it be consulted and properly treated Will not the War Minister give us that opportunity?

HOSPITAL SUNDAY AND THE NATIONAL ANTI-VIVISECTION SOCIETY.

LAST Sunday, June 16th, was Hospital Sunday, the one day in the year when nearly all Christians and non Christians lay aside their differences and unite in trying to do their utmost to help the sick, the poor, and the needy We say "nearly all" because the National Anti Vivisection Society and its energetic honorary secretary, Mr Stephen Coleridge, introduced a false note into the harmony by causing to be distributed at church doors a leaflet quoting a letter which had "been sent to the incumbent of this church" asking the said incumbent to use his influence to insure the payment of the subscriptions of his congregation to those hospitals only "that make no such diversions from their general funds" The "such diversions" were sums granted to the support of medical schools "which are places wherein animals are vivisected' We are glad to see that the incumbent did not reply to Mr. Coleridge, and therefore that "the National Anti vivisection Society desires to place the letter before you and to inform you that should you wish to have full information on this matter before giving your money to the Mansion House Fund, such information will be found in the 'Guide to the Charitable' issued by the society which will be supplied to you gratis on application at the society's office, 92, Victoria street, Westminster" We applied for the "Guide to the Charitable," the proper title of which is "A Guide for the Charitable in the Disposition of their Gifts and Bequests, but we were charged 3*d* However, let that pass, we simply say that Mr Coleridge's action "is not cricket,' it is not the way to play the game We are not alone in this opinion, as is exemplified by Canon Fleming's letter in the *Times* of June 17th Mr Coleridge deliberately charges the Hospital Sunday Fund and the authorities of hospitals with malversation The medical education given in a medical school is as much for the benefit of the patients as are bandages, beds, or drugs, and the hospital authorities have a perfect right to subsidise their schools if they like We cannot check the accuracy of all Mr Coleridge's statements, but we notice that in the account of Charing Cross Hospital it is stated in red ink that "Drs Phillips and Arkle, though not otherwise connected with the hospital or the school, are licensed to perform experiments at the medical school Dr Phillips may be, but Dr C Arkle has been dead since 1899 Nothing that Mr Coleridge or any one else can say will alter our opinion of his action, so he may spare himself the trouble of writing two column letters to us There is apparently one incumbent who has taken up the attitude of running with the hare and hunting with the hounds, for according to a contemporary Archdeacon Wilberforce, unwilling completely to boycott the Hospital Sunday Fund on account of "vivisection," intended to have two collections, the proceeds of one of them to be devoted to some hospital or hospitals defined as "non vivisectionist" Whether the venerable gentleman mentioned actually conceived or carried out any such plan we do not know, but it is to be hoped that he or any other clergyman who addressed a congregation on the question of experiments on animals and its bearing upon subscriptions to hospitals was discerning or candid enough to point out in doing so that the conscientious "anti vivisectionist" who does not subscribe to the Hospital Sunday Fund on account of experiments made in individual hospitals must equally refuse to contribute to any hospital in which any operation is ever performed or any drug administered the effect of which was originally tested in any hospital or laboratory by experiment upon any living thing, except only upon a human being, and we need hardly add that in order to be thoroughly consistent the "anti vivisectionist" must also decline to avail himself of surgical or medical science in most of the ills that may happen to him, or he will himself be profiting by "vivisection"

As, however, every progressive step in medicine or surgery must in the nature of things be an experiment, the "anti-vivisectionist" at the present moment has three courses open to him. He may proclaim himself an enemy to all progress in medicine and surgery and subscribe to nothing; or he may endeavour to discover a hospital in which all the work done is based upon experiments made not upon animals but upon patients, although where he will find this institution we cannot pretend to say; or, thirdly, he can still reconsider his position and send a belated but acceptable contribution to the Hospital Sunday Fund.

FOOD STANDARDS.

A MOST important announcement has been made in Parliament to the effect that it is proposed to fix a standard for milk under which, for the purposes of the Sale of Food and Drugs Acts, a presumption would be raised that milk was not genuine unless it contained 3 per cent. of milk-fat and 8·5 per cent. of non-fatty milk solids. Regulations to this effect are being prepared, and it is suggested that these regulations should come into force on August 1st. The principle of standards for food becomes thus officially recognised, and this experiment in legislation will be watched with interest while doubtless in some quarters it will be viewed with dismay. The question of adopting standards in the matter of milk has been discussed for a great many years, and many persons have doubted the feasibility of insisting upon any limits, but public analysts have long recognised the necessity of having a legal limitation, if the evidence of analysis is not to be brought into discredit and if the adulteration of milk with water in particular is to be suppressed. For years past the Society of Public Analysts have adopted as minimal limits for fats 3 per cent. by weight, and for solids not fat 8·5 per cent. by weight, and these limits have been accepted as satisfactory by most analytical chemists not only in this but in other countries. It is well known, of course, that milk occasionally falls below this standard, although there may be no doubt about its derivation straight from the cow. But such cases are exceptional and should be regarded as abnormal. In the experience of those who deal every day with the composition of a variety of milks the limit of 3 per cent of fat is quite reasonable for the mixed milk of the whole herd. Genuine milk rarely, if ever, falls below this limit. Moreover, this limit allows, we think, for all seasonal variations. The question remains whether particularly rich milk will, in view of a legal requirement, be diluted down to the standard. This possibility is perhaps the only serious argument against the principle of standardisation. We have suggested more than once that the buyer of milk should obtain a guarantee from the seller of the quality of the milk supplied and no reasonable person would object to pay a price in accordance with this quality. We certainly do not think that the legalisation of a standard will be a hardship to the milk dealer. The attenuation of milk by the abstraction of cream or by the addition of water is a much too favourite practice and it must be stopped. The adoption of a standard will, we believe, have the effect of improving the quality of the milk supplied, and the Society of Public Analysts may be congratulated upon the fact that the Government have adopted exactly the limits and standards of milk which the society decided upon for the guidance of their members in active practice some years ago. Other questions are also pressing in regard to the laying down of standards for foods, and a committee is shortly to be nominated by the President of the Board of Agriculture who will be asked to consider a large amount of evidence on the proposal to adopt a butter standard. The administration of the Food and Drugs Act has been a much-debated subject by parliamentary committees during the past few years, but nothing so definite as the proposal of food standards—though, as we have urged all along, such standards were required to clear away many difficulties—has ever been decided upon. No subject has ever given rise to more contention than that of fixing standards for food, but it would seem that at last this country is to adopt a method of administration on the same lines as have been adopted by other countries years ago, lines which experience teaches to have been expedient and productive of public good.

THE COMPLIMENTARY DINNER TO SURGEON-GENERAL JAMESON, C.B.

THE complimentary dinner to be given to Surgeon-General Jameson, C.B., will take place on Wednesday, July 24th, at the Hotel Cecil. The cost of the tickets will be 25*s.* All members of the medical profession, whether in His Majesty's services or not, are invited to attend. Gentlemen who wish to be present are requested to send their names to one of the honorary secretaries, Mr. G. Lenthal Cheatle, C.B., F.R.C.S. Eng., 117, Harley-street, W., or to Mr. Cuthbert S. Wallace, F.R.C.S. Eng., 75, Lambeth Palace road, S.E., who will communicate with them with regard to details.

PLAGUE IN CAPE COLONY.

A TELEGRAM received at the Colonial Office on June 13th, gives the following statistics of plague at Cape Town for the week ending June 8th. Fresh cases: Europeans, 7; coloured persons, 2; Malays, 4; Indians, Chinese, Natives, 0; total, 13. Corpses found: Europeans, 0; coloured persons, 2; Indian, 1; Malays, Chinese, Natives, 0; total, 3. Deaths (including corpses found), Europeans, 1; coloured persons, 5; Malay, 1; Indian, 1; Chinese, Natives, 0; total, 8. The total cases up to June 8th are as follows: Europeans, 180; coloured persons, 313; Malays, 53; Indians, 11; Chinese, 1; Natives, 142; total, 700. The total deaths have been—Europeans, 58; coloured persons, 164; Malays, 36; Indians, 9; Chinese, 0; Natives, 59; total, 326. One case has occurred under naval and military control. The area of infection remains unchanged.

THE RATING OF WATER RESERVOIRS.

THE rating of water reservoirs is likely to engage some attention in the near future. In the neighbourhood of Hampton and Sunbury, in addition to the immense reservoirs already existing, it is in contemplation to cover something like 6000 square acres, or about 10 square miles, for additional storage. Recently the Hampton-on-Thames Urban District Council rated some of these massively-constructed water stores on the same basis as any other building used for the storage of goods. This the water companies resisted and a test case was submitted to the House of Lords. It was held that a reservoir was chargeable only as land covered by water, and under Section 211 of the Public Health Act, 1875, was rateable at one-fourth only of the full rateable value. The inhabitants of Hampton and Sunbury, who have recently been spending large sums upon sewerage systems and disposal works, feel greatly aggrieved at this wholesale diminution of their prospective income. At a public meeting held at Sunbury on June 3rd heroic measures were resolved upon. The existing law was pronounced to be iniquitous and unjust; it was determined that it must be altered and steps were resolved upon towards forming a combination with other urban district councils to achieve the reform. Although they have a distinct case, the inhabitants of Hampton and Sunbury will be well advised not to go too quickly. Superficially it seems an anomaly that one structure costing many thousands of pounds, used for the s
of a marketable commodity sold at a profit, should be

at a lower standard than another simply on account of its contents. It is also hard that a rural suburb, renowned for its sylvan beauties, should be denuded of its trees and generally rendered more or less hideous, while the wealthier resident population is driven away, to the general detriment of the remainder, and this without any compensatory advantage. But, on the other hand, very many years would elapse before 6000 square acres in the district would be covered with ordinary buildings, paying the full rating. The urban district council would in the meanwhile have to spend large sums upon miles of sewers and paving, would have to maintain roads—which means lighting and watering—and would also have to pay for police work, while an increase of the indigent population would be certain. These expenses in the case of the reservoirs are almost nominal, whilst the water companies are even now voluntarily paying the full rating on the poor-rate. The people of Hampton and Sunbury will be prudent to consider further before engaging in a Quixotic attempt to reform the existing law. It is very doubtful if much support will be extended to them from other district councils, very few indeed of which are in a parallel position.

INTERMITTENT CLAUDICATION OR LIMPING: ITS PATHOLOGY AND TREATMENT.

PROFESSOR DAVID RIESMAN of the University of Pennsylvania deals, in *American Medicine* of May 25th, with the interesting and somewhat rare condition known as "intermittent claudication"—a phenomenon first described by Charcot in 1858. The expression was then borrowed from veterinary medicine, in which it was employed to designate an intermittent painful limping or paralysis occurring in horses. Recently attention has been drawn to this condition in man by the studies of Erb and Goldflam. The cardinal symptoms in the human subject are as follows. The patient starts out to walk and does so for a short distance with perfect or almost perfect ease. Then he begins to experience pain and numbness, and often a distressing cramp in one or both legs, usually in the calves or feet. Further walking becomes difficult or impossible and he is compelled to rest. After a few minutes, however, locomotion can be resumed, only to be again interrupted by a return of the pain and cramps in the legs. The patient thus has intermittent attacks of limping. Physical examination of the legs shows a very characteristic symptom—viz., an absence of pulsation in the arteries of the feet, chiefly the dorsalis pedis and often the posterior tibial artery. Professor Riesman states that pulsation of the dorsalis pedis artery is never absent in health, and Erb noted its presence in 99 per cent. of general hospital patients, its absence in 1 per cent. being due to œdema of the legs, elephantiasis, or arterio-sclerosis, all of which acted as obstructions to the circulation in the affected limb. Sensation in the limbs was normal in patients who had intermittent claudication, but paræsthesia (numbness, formication), pain, and coldness might be present, while pallor and dryness of the skin of the legs were common. That it was important to recognise the disease was shown by the fact that gangrene occurred seven times in 24 cases collected by Goldflam. The majority of patients are of the male sex—11 out of 12 observed by Erb and all the 24 cases of Goldflam—the ages varying from 32 to 60 years Pathologically the most important lesion is an obliterating endarteritis in the lower limbs, similar to that found by Mitchell and Spiller in the arteries of the toe in erythromelalgia. Among the etiological factors were syphilis, alcohol, exposure, tobacco, and perhaps diabetes. As, however, arterio-sclerosis is common and intermittent claudication is rare it is necessary to assume that other factors contributed to bring about the latter affection. Charcot inclined to the belief that the muscles lost their irritability and possibly suffered a change analogous to cadaveric rigidity, as in the well-known experiment of Stannius of ligature of the abdominal aorta in animals. It is interesting to note that the majority of the patients whose histories are recorded were excessive users of tobacco and were of the Hebrew race. The following case is illustrative. A man, aged 39 years, a travelling salesman, had smoked and chewed tobacco to excess all his life. He then became ill with muscular rheumatism (?) and had to take to his bed. He lost flesh considerably after this. One day, while walking, he experienced severe and sudden pain in the sole of the left foot and had to take a cab to reach his home. After this he developed all the symptoms of intermittent claudication. In June, 1900, he had an obscure "attack" with loss of speech and of power in the right arm, but apparently recovered after two weeks' treatment with iodides. Pulsation was now noticed to be absent from the dorsal artery of the left foot and to be slight in the right. Some improvement resulted from treatment with hydrargyrum and iodides, but only temporarily. Professor Riesman says that diet should be largely vegetable and that red meats, alcohol, tea, coffee, and tobacco should be forbidden during treatment. Alkaline waters are helpful. Fatigue should be carefully avoided. Massage did not prove helpful in the present case.

SELF-DRUGGING.

THE pernicious habit of self drugging has grown to be a source of untold mischief. It is greatly assisted by the enormous improvements which have been brought about in recent years in pharmaceutical preparations. 30 or 40 years ago medicines were bulky and had to be taken in large doses of generally a nauseating flavour. But now, owing to the invention of the various "-oids," "-forms," "-ettes," and "-ines," medicines can be taken in small doses and with a minimum of trouble. The columns of the daily press are given up to flaming advertisements setting forth in more or less scientific language the various feelings of *malaise* engendered by hepatic insufficiency and constipation, and the sufferer is assured that if he will take some or other preparation "that tired feeling" or any other of the thousand-and-one symptoms attributable to dyspepsia or lithæmia will vanish like a dream when one awaketh. The advertisements to which we take exception are not quack medicines. They undoubtedly are useful in the condition described under certain circumstances But the dangerous thing about them is that they induce the public to drug themselves and very possibly to omit to seek treatment for what may not be simply constipation, gout, or dyspepsia, but possibly the outcome of malignant disease. This is why we think that such advertisements are in no way right. They are, if not intentionally deceptive, at all events practically so.

THE NEW RADCLIFFE LIBRARY AT OXFORD.

JOHN RADCLIFFE, M.D., by his will dated Sept. 13th, 1714, bequeathed most of his property to the University of Oxford, and one of the results of this will was the Radcliffe Library which was completed in 1747. In a Convocation held at Oxford on Tuesday last the degree of D.C.L. *honoris causâ* was conferred upon Cornelius C. Dalton, C B, Master of the Drapers' Company, on the occasion of the formal handing over to the University of the new Radcliffe Library built by the Company at a cost of over £21,000. The building adjoins the museum and has been erected in the Renaissance style from the design of Mr. T. G. Jackson who has already done such good work for Oxford. The Drapers' Company being in the possession of funds now no longer applicable to their original purpose, it occurred to them whilst Dr. Henry Bond, the principal of Hertford College, was serving his term of office as Master of the Drapers' Company, that some of these funds might be devoted to the teaching of science in the University of Oxford. Dr. Bond approached the University on the matter and the new library was the outcome. This was the little history of the movement which Dr. Dalton gave on handing over the buildings to the University. We are happy to be able to add our meed of congratulation to the Drapers' Company for their munificent action. The great City companies have often been threatened with spoliation by those whose desire seems always to be to take away from him that hath, but so long as corporate bodies distribute their wealth after the manner of the Drapers' Company there is but little fear that they will be robbed.

THE MEDICAL ACTS AMENDMENT BILL.

The Medical Acts Amendment Bill was introduced in the House of Commons by Sir Richard Jebb, M.P. for Cambridge University, on Monday last. This Bill gives the General Medical Council power to erase from the Medical Register for a limited period the name of a registered practitioner who has been adjudged guilty of misconduct in a professional respect. The General Medical Council would thus be able to deal fitly with cases which can be met by temporary suspension from practice. A second object of the Bill is to enable medical authorities to deprive a practitioner whose name has been erased from the Medical Register of the degrees or diplomas obtained from that authority. At present the bodies which grant registrable qualifications do not all possess the same powers of taking them away from unworthy persons. The Bill also provides that penalties recoverable under the Medical Acts shall be paid to the General Medical Council. The measure is well backed and should become law.

"THE EXTERMINATING COLLECTOR."

In an annotation published under the above heading, which appeared in The Lancet of June 8th, p. 1613, we commented upon sundry statements made in letters to the *Times* written by Professor L. C. Miall and Professor R. Meldola concerning a programme of field studies in natural history which was issued apparently by the Essex Technical Instruction Committee, Biology Section. We say "apparently" because Professor Meldola said that the programme was unofficial. Mr. David Houston, F.L.S., has now sent us a copy of the programme in question which is, however, headed "County of Essex Technical Instruction Committee," by which we see that with regard to the vacation course in the New Forest, "members of the party will of course refrain from up-rooting rare or scarce specimens." The paragraph about collecting duplicates which appears on p. 7 of the programme does not refer to the New Forest but to "the Saturday or other rambles" in Essex. We may therefore possibly have been wrong in assuming the Essex Technical Instruction Committee to be wishful to collect rare plants in the New Forest, but why does Mr. Houston on p. 9 point out that four plants specially named as "rare" should be "particularly sought after"? All the same we most earnestly hope that most stringent measures will be taken to preserve not only our rare flowers and plants but also our rare animals. Only recently we have seen reported in the daily press the destruction of the badger and the otter, both wild animals, of which there are far too few. Granted that the otter destroys fish and the badger eats rabbits there is no reason why the angler should have his sport protected at the expense of such an interesting animal as the otter, and as for rabbits they are so prolific that the few eaten by a badger can make little or no difference. If the destruction of pheasants or partridges can be laid at the badger's door we suppose that he will have to go, but we fancy that the hedgehog is a greater criminal in this respect, at any rate, as regards eggs. Wild life in England is in a parlous condition and those animals which remain should, in our opinion, be protected as far as possible.

EPSOM COLLEGE.

The preliminary list of stewards of the festival dinner of the Royal Medical Benevolent College, Epsom, to be held at the Hotel Cecil, on Tuesday, July 9th, in aid of the fund for the pensioners and foundation scholars of the college, will be found in our advertising columns and promises well for the success of the object in view. We have often commended this excellent institution to the consideration of the medical profession and take this opportunity of doing so again. Epsom College ought to be supported by every medical man in the country, for the work that it does is of immense value. The pensions that it distributes represent to some of our old and unfortunate brethren the difference between life and death, while the service that it renders to the orphan children of medical men can with difficulty be calculated. Would that Epsom College could grant more pensions and receive within its walls more foundation scholars. At the present moment, however, the institution finds it almost impossible to respond to the calls made upon it, and we would urge upon our readers that they should make an attempt to support it by donations and regular subscriptions.

NATURE AND TREATMENT OF DIPSOMANIA.

Dr. P. C. Remondino of Los Angeles, California, in a paper on dipsomania contributed to the April number of the *Quarterly Journal of Inebriety*, draws attention to the singular features in the history of the dipsomaniac—viz., the recklessness manifested in the period of drinking while it lasts and the practice, for the most part, of total abstinence during the interval. He also makes certain practical suggestions regarding the climatic treatment of these cases, drawn from a specially large experience in them. Members of the dipsomaniacal class are to be found in all ranks of society, and it has long been a mystery to their friends how men of intellectual culture and even of refinement can continue to repeat such orgies of drink and dissipation, of the consequences of which they are fully conscious in the intervals. One of the cases recorded was that of a medical man, a person of "high intellectual culture and morals" and always in the enjoyment of excellent health. His periodic attacks would begin in most unusual fashion. For days before an attack he would cautiously gather bottles of brandy, gin, whisky, or other liquor, and secrete them in places likely to escape detection—e.g., in his hunting-boots, behind books in bookcases, and in other corners. When all was ready his spell of debauchery would be inaugurated at nightfall. Being missed at meals by his friends, who always feared the cause of his disappearance, he would be found in his room in a "glorious state of intoxication." He would walk up and down in a rigidly erect attitude, hardly able to articulate, and his eyes would have a wild, fixed, and unnatural stare. As many bottles as could be found would be removed, but the patient would still manage to get a few from their hiding-places and so finish his drinking spell—an ending that always came when his stomach refused to hold liquor any longer. A week of retching and vomiting, with headache, would follow, and he would suffer from attacks of deep contrition and slight suicidal promptings. He would then leave home for a fortnight's rest and convalescence, and return to his work in good condition. In a second case the patient's attacks followed overwork and cerebral fatigue.

He would then take a tonic (tincture of cinchona or other alcoholic drug) and repeat the dose a few times "to steady himself" as he said. The craving for drink would now come upon him with great intensity and he would drink until he passed *into a helpless stupor and his stomach refused* any more. Then followed days of intense neuralgia, gastralgia, "heavings," and repentance. When quite sobered he would read and study books on temperance, and, perhaps, deliver a lecture on the benefits of total abstinence before some local temperance association and rejoin some lodge which would receive him as a brand saved from the burning. After this he would remain an exemplary teetotaler until some new accident hurled him from grace. The periods of strict temperance in this patient lasted from a few months to two years. In two other cases, both laymen of more than average intelligence, attacks of dipsomania would be brought on "through the influence of a peculiar hysterical condition of the whole nervous system," precipitated by any excitement in social or municipal matters in which they took part. An unfortunate *condition of unstable equilibrium and weakness of the nervous* system would result, which imperatively called for some stimulant in these two persons. Dr. Remondino points out that in cases of dipsomania a neurotic heredity was often present. In the case of one patient with a gouty taint and of another with chronic malaria, cures of the dipsomania were effected by treatment of these bodily disorders, and in the latter case removal to a more congenial climate made the cure permanent. A humid and temperate climate with a "sedative" atmosphere was better than a hot and dry one for dipsomaniacs. Occasional cures might be effected by auto suggestion or by hypnotic treatment.

PAPER AS A WRAPPER.

NOT the smallest use amongst the great variety of uses to which paper is put is that of a wrapper and it would be hard to find a substitute. There is, of course, a special paper made for wrapping articles of food—as, for instance, butter, biscuits, and tea—but very frequently, and especially amongst the poor, almost any paper material is employed for the purpose. Thus a pennyworth of pease-pudding is commonly supplied in a piece of any old waste newspaper, or in the same way a slice of boiling hot ham, a bloater, or a well-oiled slice of fried fish. Some commodities, indeed, are supplied even in a well-nigh liquid state in this way. A boy in the street may frequently be seen licking his pennyworth of tamarind preserve from a piece of newspaper. The spectacle is not very edifying, and when we think of the possibility of the paper and the heavily-inked print upon it containing injurious substances we may shudder. Of course, the ubiquitous organism is bound to be present and not unlikely it may be a pathogenic one considering the dirty environment under which waste newspaper is frequently to be seen. In these days, too, when science would seem to show that arsenic in varying quantities is as ubiquitous as the microbe, the newspaper may become a dangerous wrapper. Such things as salt meats or salt fish would be calculated to exert a solvent action upon any irritant present. The print may often be found reproduced on the fat of a slice of salt beef or on the daub of pease-pudding. This aspect of the purity of newspapers is, therefore, worth considering and we are glad to be able to record, as the result of a recent inquiry in the laboratory, that at any rate the London newspapers are as a rule free from any reproachable substance. This is all the more satisfactory when we consider the cheapness nowadays with which newspaper production is required to be done. We have examined the penny newspapers and the halfpenny newspapers, the white newspapers and the *coloured newspapers, but in no case could* we find even traces of substances that are regarded as injurious. And this result exonerates also the printing ink, although we found when operating upon printing ink in bulk just the bare indication of arsenic, but the quantity of printing ink operated upon would represent a whole file of papers. Possibly a trace of arsenic occurs in the Prussian blue used in printing ink. Even the coloured evening newspapers are free from objection, although an aniline dye is calculated to excite suspicion. However, the green *Westminster Gazette*, the pink *Evening News*, *Star*, *Globe*, and *Sun*, were alike found to contain innocent colourings in infinitesimal quantity, while no irritants could be found on analysis. Of course the manufacture of paper involves the use of chemicals, notably lime, soda ash, chlorine, sulphuric acid, chromium salts, hydrochloric acid, and alum, and it is conceivable that in careless or cheap manufacture these substances or their impurities, amongst which may be reckoned arsenic, might be retained in the paper. In the light of our examination, however, the London newspapers at any rate may be *said to be satisfactory on these heads, and therefore any* objection against the use of the newspaper as a food-wrapper, apart from bacteriological possibilities, can only be sentimental.

THE BONES OF ST. THOMAS OF CANTERBURY.

"WHERE are now the bones of the famous and wise goldsmith, Weland? I call him wise, for the man of skill can never lose his cunning and can no more be deprived of it than the sun may be moved from his station. Where are now Weland's bones or who knoweth now where they are?" So wrote our great King Alfred more than 1000 years ago in his translation of the "De Consolatione" of Boethius in one of the reflective passages with which he interlarded the original text. The words came forcibly to our minds on seeing the little pamphlet by Mr. Pugin Thornton *entitled, "Becket's Bones."*[1] The pamphlet *arose from the* discovery of some bones in the crypt of Canterbury Cathedral during some excavations made in 1888. They were lying in a coffin within a few feet of the tomb in the crypt where the great archbishop was buried in 1170. From this tomb his bones were removed to the shrine in Trinity Chapel, where they rested undisturbed until the advent of Henry VIII. Mr. Pugin Thornton discusses the question as to whether or not the bones found are the bones of one who in his time was the most popular English saint. He comes to the conclusion that they probably are *and gives eight reasons for so doing. Among these are the* following. Apart from the evidence of injury to the skull the bones evidently belonged to a tall man, and Becket was over six feet in height. They had evidently been reburied in the place where they were found, for they were arranged in a certain order, the long bones crossing one another. We should say that the late Father Morris who was at first in favour of the bones being those of the saint afterwards argued strongly against this view. After Mr. Thornton's examination the bones were re-interred where they were found, but no inscription marks the site. We think that a hypothetical inscription might well be added, for except the building itself we fancy that there is no memorial of the Archbishop in the cathedral, and whether we look upon him merely as an Archbishop or as St. Thomas of Canterbury there is no doubt that he was a very great man. Apart from his influence in life he exercised for centuries after his death an influence over the thoughts, the minds, and the literature of Englishmen to which it is hard to find a parallel. Perhaps his memory is best preserved by the "Canterbury Tales" and by the solemn yew trees which mark the Pilgrim's Way from Southampton to Canterbury through Surrey and Kent. But, as Sir Thomas Browne says, "Who knows the fate of his bones or how often he is to be buried? Who hath the oracle of his ashes or whither they are to be scattered?"

---

[1] Becket's Bones. By W. Pugin Thornton. Canterbury: Messrs. Cross and Jackman. 1901. Pp. 16. Price 1s.

PRACTICAL MICROSCOPY.

As the medical profession is interested in the study of microscopy our readers may like to know that a new series of articles dealing with the practical side of microscopy, together with notes and queries, correspondence, and descriptions of new apparatus, are appearing each month in *Knowledge* under the editorship of Mr. M. I. Cross. The articles give good and practical information on the subject, and being edited by one of the joint authors of the well-known handbook, "Modern Microscopy," are sure to prove valuable.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.

THE provincial meeting of this society will be held on Saturday, June 29th, at the Medical Institution, Hope-street, Liverpool. From 3.30 P.M. to 5 P.M. there will be an informal exhibition of cases by Mr. Robert Jones, Dr. James Barr, Dr. C. J. Macalister, Mr. G. P. Newbolt, Mr. K. W. Monsarrat, and others, and at 5 P.M. the following papers will be read: Some Remarks on the Etiology of Rickets, by Dr. Henry Ashby; Tubercle of the Choroid, by Dr. George Carpenter and Mr. Sydney Stephenson: Note on a Case of Syphilis Transmitted to the Third Generation, by Dr. D. M. Hutton; A Short Note on the Surgical Treatment of Meningitis in Children, by Mr. K. W. Monsarrat; Observations on Cirrhosis of the Liver and Endocarditis in Children, by Dr. C. J. Macalister; A Note on the Treatment of Endocarditis in Acute Rheumatism and Chorea, by Dr. Richard Caton (introduced); Removal of a Foreign Body from the Second Part of the Duodenum, by Mr. R. Clement Lucas; A Case of Pneumococcal Peritonitis, by Dr. John H. Bryant; and Bimanual Examination in Diagnosis of Abdominal Disease in Children, by Dr. James Carmichael.

THE NATURE AND TREATMENT OF TICS AND ALLIED DISORDERS.

IN the *Revue Neurologique* of April 30th Dr. H. Meige and Dr. E. Feindel publish an interesting and practical paper on the subject of tics and allied disorders of movement of nervous origin and deal briefly with the treatment of some varieties. The cases studied were 20 in number and had been under observation for some years. They agree with Charcot[1] that tics are automatic and irrepressible movements which are caricatures of natural movements. The present study is especially concerned with tics of the face and neck which may be accompanied sometimes by movements of the shoulders and respiratory sounds. Among the causes imitation of gestures holds a prominent place, especially in the case of young "tiquers." Tics may be thus learnt and by repetition they may become habitual. A case is given of a child with oculo-motor tics which were acquired by imitation of the mother. The mother was cured of the habit and the child ceased to exhibit the tics thereafter. Echolalia, coprolalia, and the utterance of bizarre and uncouth sounds (grunts and the like) are other instances. Twitching of the eyelids as if from irritation by a foreign body, and blinking as if in the presence of excessive light are common tics. The latter is sometimes due to feebleness of will and sometimes to contracture and may be corrected by "gymnastics" of the eyelids. Tics of the lips and tongue are frequent, singly or combined, as poutings, suctions, biting of the lips, and movements of the jaws. Some are accompanied by tics of smelling, respiration, and phonation. Squirming of the head and neck as if irritated by a tight collar is included by Brissaud under the title "mental torticollis." Treatment should be directed towards the discovery and removal of those whom the patient imitates and the elimination of any local irritation. Regulated exercise of the muscles affected may complete the cure.

ACCIDENT TO PROFESSOR VIRCHOW.

WE learn with regret that Professor Virchow has met with an accident. While out walking he was blown by a very high wind against a tree and sustained an injury to the head. Happily, assistance was quickly obtained and the professor, who was unable to walk farther, was taken home in a carriage and the necessary surgical aid was rendered by his medical attendant. There is said to be no reason for any immediate anxiety, but it must not be forgotten that Professor Virchow is approaching his eightieth anniversary; moreover, he has been in indifferent health for some time past.

LIVERPOOL SCHOOL OF TROPICAL MEDICINE: DEPARTURE OF THE FIFTH ANTI-MALARIA EXPEDITION TO WEST AFRICA.

Major Ronald Ross, F.R.S., late I.M.S., accompanied by Dr. Logan Taylor, recently assistant lecturer in pathology at the University of Glasgow, sailed from Liverpool on June 15th, by the steamship *Axim*, for the West Coast of Africa under the auspices of the Liverpool School of Tropical Medicine, with the object of attempting to exterminate the mosquito which is supposed to be the transmitter of malarial disease. This is the fifth expedition organised by Major Ross and the first occasion upon which Dr. Taylor has associated himself with the work. Major Ross proposes to stay in West Africa about six months, but the length of his sojourn will depend upon the progress made. It is quite probable that the Colonial Office, which is impressed with the importance of the investigations, may shortly send a representative to assist in the work. Mr. Chamberlain has shown his sympathy with the expedition by sending a message wishing it every success, and has also intimated that he has instructed the Governor of Sierra Leone and other Government officials to give to Major Ross and Dr. Taylor all the assistance in their power. A large contingent, representing the Liverpool School of Tropical Medicine, assembled at the landing-stage to give Major Ross and Dr. Taylor a hearty send-off, amongst whom were Mr. Alfred L. Jones (the chairman), Lady Ross (the mother of Major Ross), Mr. W. J. Davey (of the firm of Elder, Dempster, and Co.), Mr. William Adamson (the vice-chairman of the school), Professor Rubert Boyce, Dr. H. E. Annett (a member of previous expeditions), Mr. F. C. Danson (a former President of the Liverpool Chamber of Commerce), Mr. A. H. Milne (secretary of the school), Mr. T. H. Barlow (secretary of the Liverpool Chamber of Commerce), Mr. John Holt (vice-chairman of the West African Association), and many others. Mr. A. L. Jones said he was glad to say a few words of congratulation and appreciation of the objects of the expedition on behalf of the Liverpool ship-owners and merchants. The Liverpool School of Tropical Medicine had done good work in many ways, and whether the mosquito theory be accepted or not no one could deny the accuracy of science. From the fact that the theory was supported by Lord Lister and other eminent scientific authorities there was little doubt as to its ultimate success in protecting people from the difficulties and dangers of tropical climates. In thanking Major Ross and Dr. Taylor, on behalf of Liverpool and the country, Mr. Jones hoped that they would be successful in their researches. Mr. Jones also assured Major Ross and his colleague that if anything was required in the way of funds Liverpool people would gladly provide it. Mr. Jones contended that if the West Coast of Africa was made as healthy as India it would be due to the energy of men like Major Ross, who laboured against the numerous difficulties encountered in tropical countries in the interests of science, trade, and humanity. As the tender left the *Axim* hearty cheers were given by the distinguished assemblage for Major Ross and Dr. Taylor.

---

[1] Leçons du Mardi, 1888-9 p. 464.

THE LATE MR. THOMAS BOND.

A POST MORTEM examination upon the body of the late Mr. Thomas Bond, whose death we recently chronicled, throws a light upon a tragedy that has much affected the medical profession. Microscopical examination of the prostate gland showed it to be not only enlarged but affected with scirrhus This explains the agonising pain which the unfortunate patient experienced during the last three or four months of his life, pain which, in the end, upset the mental balance and terminated the valuable life of a highly respected *confrère*.

DEATH REGISTRATION IN SCOTLAND.

THE *Glasgow Herald* of June 8th contained an interesting letter from Dr T. Colvin calling attention to the dangers arising out of the system of death registration in use in Scotland, which he stigmatises as chaotic. The reforms which he suggests will to some extent explain the present condition of things. He urges (1) that registrars should be empowered to refuse a burial order until the applicant produces a medical certificate of death signed by a duly qualified medical practitioner; and (2) that in all cases of sudden death where the deceased has not been examined by a medical man for a considerable time prior to his death there should be a coroner's inquest to detect and to prevent criminal practices of all kinds In the case which prompted Dr Colvin's letter a working man went to a registrar and told him that his child, having been attended for three days by Dr. Colvin for congestion of the lungs, was dead. A burial order was thereupon given to him by the registrar, but upon the registrar sending a medical certificate to Dr Colvin with a request that he should sign it the following state of affairs came to light Dr. Colvin had not attended the child, the child was not dead, and the fraud, for which the father was sentenced to 30 days' imprisonment, had apparently been perpetrated in order to obtain some privilege accorded by employers to bereaved parents We can only say that a system under which such an incident as that related is possible, and may, as far as Dr. Colvin informs us, take place at any time, is one which urgently needs reform. The English system is far from perfect, and a new system inaugurated in Scotland and avoiding the defects of that prevailing in this country might prove to be an experiment which would be very useful to both countries.

MEDICAL EXCURSION TO FRENCH MINERAL WATER RESORTS.

THE details of this year's trip to the mineral water stations of France have now been arranged as follows. The rendezvous will be at Uriage, near Grenoble, at which place visitors must arrive on Saturday, August 31st, or at latest on the morning of the following day. The trip will occupy exactly 12 days and will terminate at Thonon, on the Lake of Geneva In the interval the following places will be inspected, some of which, it will be observed, possess an interest which is general rather than scientific: Grande Chartreuse (Sept. 2nd); La Motte (Sept. 3rd); Allevard and Salins Moutiers (Sept. 4th); Pralognan (Sept. 5th); and Brides-les-Bains and Challes (Sept. 6th). On Sept. 7th Aix-les-Bains will be reached, and the day is to be spent in inspecting the city and its environs, Marlioz, Lake Bourget, and Hautecombe The following day will be occupied with an excursion to other places in the neighbourhood On Monday, Sept. 9th, the excursion will be continued as follows: Hauteville Sanatorium (Sept. 9th); Divonne (Sept. 10th); St Gervais (Sept 11th); Evian and Thonon (Sept. 12th). The price to be paid is 300 francs (£12 10*s*), and this will include everything from the point of rendezvous to the moment of breaking up Moreover, a railway ticket at half price can be obtained from any place in France (say Calais or Dieppe) to Uriage, and a similar ticket from Thonon back again. As in former years the tour will be under the direction of Professor Landouzy who will at each place give a short lecture on the composition of the waters, the balneological methods employed, and their therapeutic indications. Anyone intending to take part in the tour should communicate with Dr. Carron de la Carrière, 2, Rue Lincoln, Paris, stating (1) his name and address, legibly written; (2) the point at which he will enter France; and (3) the day on which he will arrive at Uriage. A cheque for £12 10*s* may be inclosed, or it may be sent separately to M le Directeur du Crédit Lyonnais, Agence B. Compte, V E M, Place de la Bourse, Paris. These details must be attended to before August 15th, after which date no application will be considered. Intending participators are strongly advised to reduce their personal luggage for the tour to the barest necessaries. In no case will dress clothes be required. Any further information may be obtained from Dr. Leonard Williams, 8, York street, Portman-square, W.

ONE EYE AT A TIME.

THE *Optician*, a widely circulated and well conducted journal, contains a paragraph in the number for June 14th which is, in our opinion, misleading. The statement is that a man on his travels, wearing a patch on one eye, is asked the reason of this proceeding. His reply is that he considers it to be advantageous to rest one eye; that as we do not use the two hands simultaneously neither should we use the two eyes, so that whilst one is working the other may be allowed to rest. Unfortunately for this view the analogy between the arms and their movements and the motions of the eye is very imperfect The nervo-muscular apparatus of the eyes does not correspond with that of the two arms. The muscles of the arms can be taught to work together or in opposition to one another, but no amount of practice will enable a man to move simultaneously the two eyes in opposite directions, either horizontally or vertically. The construction of the nerve centres is such that the eyes must roll in the same direction By closing the lids of one eye positive harm may be done, for friction between the globe and the lid of the closed eye will only serve to impede its movements and interfere with the due coördination of the muscle This effect is not unfrequently seen when one eye has for any reason been kept closed by a bandage, double vision often lasting for some time. To close one eye for the purpose of resting it seems about as sensible as it would be to tie up one leg and hop with the other on alternate days, or to plug one ear or nostril and rely upon the other for audition or for smell.

A BUST of Armauer Hansen will be unveiled at the Lunggaards Hospital in Bergen on the forenoon of August 10th Professor Virchow is issuing invitations in the name of the committee to prominent medical men of different countries to take part in this ceremony in order that it may prove an occasion of international professional fellow-feeling. Dr. Sandberg of Bergen is receiving the names of those invited who intend to be present.

AT the request of His Majesty the King His Royal Highness the Duke of Cambridge has undertaken to fill the office of President of the British Congress on Tuberculosis and will open the Congress at St. James's Hall, Piccadilly, W., on Monday, July 22nd, at 3 P.M.

HER MAJESTY QUEEN ALEXANDRA, who as Princess of Wales was for 30 years patroness of the Hospital for Diseases of the Skin, Blackfriars, S.E., has graciously consented to continue her Royal Patronage.

THE Master and Wardens of the Society of Apothecaries have issued invitations for a conversazione to be held at Apothecaries' Hall, Blackfriars, on Wednesday next, June 26th, from 8 to 11 P.M.

THE Past and Present West London Hospital dinner will be held at the Empire Rooms of the Trocadéro Restaurant on Tuesday next, June 25th, at 7 30 P.M.

ARMY MEDICAL DEPARTMENT REPORT FOR 1899.

I.

IT is unavoidable, we presume, that a considerable interval should ensue between the occurrence of the facts and medical transactions to which these reports relate and their publication. The information has to be drawn up and collected from the various military stations and commands and the various statistical returns have also to be revised and corrected before they can be embodied and issued in the form of a report which, being an official publication, has to be accurate. But it cannot be doubted that in the times in which we are living this has the effect of robbing such reports of much of the interest which they would otherwise possess. To the ordinary reader the perusal of an official history of past events and the examination of statistical tables and their results are not at the best of times an exhilarating occupation and they are only too apt to be regarded as a somewhat stale and unprofitable one. The consequence is that reports on the compilation of which great pains and labour have been bestowed often receive but scant notice, especially in the columns of current journalism. In the case of the Army Medical Service, moreover, the report intended for the information of Parliament and the public is usually issued first and separately, to be speedily followed by the more enlarged and expanded report containing an appendix embodying the special and more professional contributions of medical officers. It is to the latter, perhaps, that the main interest of the volume attaches, at least as far as the medical profession is concerned.

The reader will naturally turn first of all to the subject of the war in South Africa. But as regards South Africa we are told that no annual returns of sick are, for the present, forthcoming, and complete statistics for comparative purposes cannot be prepared until after the military operations have been brought to a close. The prevailing diseases previously to the outbreak of hostilities were, however, enteric fever and other fevers, dysentery, digestive disorders, venereal affections, and rheumatism.

The first pages of the report for 1899 give an excellent summary statement of the health of the troops at home and abroad, from which we glean the following:—

The average strength of the European troops serving at home and abroad, exclusive of South Africa, in 1899 was 201,004 warrant officers, non-commissioned officers and men. The total number of admissions to hospital was 173 204, and the total deaths were 1594. The admissions represent a ratio of 861·7 per 1000 of strength as above; the deaths one of 10·82 per 1000, on a strength of 204,720, which includes detached men not shown in the returns received. The statistics of the troops serving in the United Kingdom show that the admission and mortality rates were both higher than in 1898, but lower than the average rates for the preceding 10 years. The admission rate for eruptive fevers was practically the same as in the previous year. One case of small-pox occurred. Influenza was again prevalent, but did not appear in an epidemic form. Enteric fever showed a decline in the admission rate as compared with the previous year and the average rate, but the mortality rate was somewhat higher in both comparisons. Dublin with eight cases was again the station most affected. Of the cases of heat-stroke and sunstroke, 29 occurred at Aldershot, and 23 at the Curragh while manœuvres were being held. Eight cases of lightning-stroke occurred in a regiment on the march from Limerick to Thurles to participate in the Irish manœuvres, and practically the whole battalion is stated to have suffered from the effects of lightning. At Gibraltar the admission and constantly-sick rates were lower, but the death-rate was somewhat higher than in 1898. The admission and mortality rates for enteric fever were less than in the previous year. In the Malta command, which includes Crete, the health of the troops compared favourably with the previous year. In Canada the health of the troops was good, there being a decrease both in the admission rate and in the ratio of constant inefficiency as compared with 1898. The mortality rate was, however, somewhat higher. In Bermuda it is noted that the decline of enteric fever commented upon in the previous year's report was again maintained throughout 1899. The admission rate for venereal diseases, which is always extremely low in this command, had still further decreased.

At Barbadoes the health of the troops was good, but the ratios of sickness were higher than in 1898, though below the average rates. There was an outbreak of beri-beri during the year, the origin of which could not be traced to any special cause, but it is stated that the disease is frequently introduced into the island from the shipping. At Jamaica it is noted that the health of the troops, although good, was not quite equal to that in the previous year in consequence of the prevalence of malarial fevers and venereal diseases. In Mauritius the health of the troops was above the average. Plague was prevalent throughout the island, and was particularly severe at Port Louis, but owing to the strict military measures adopted to prevent the disease from spreading the troops were particularly free from attack, only one case occurring. There was a marked decline in the prevalence of malarial fevers. In Ceylon there was a marked increase in the admissions for malarial fevers, but this is believed to be due more to the importation of troops who had been affected with malaria elsewhere than to local causes. In the Straits Settlements the health of the troops was most satisfactory, the marked decrease in the admission rate for venereal diseases being especially noticeable, which decrease is attributed in a great measure to the increased supervision exercised by the municipal authorities over the bazaars, brothels, &c. There was also a considerable decrease in the number of admissions for malarial fevers. In China the ratios of sickness were higher than in 1898, chiefly due to the increase of admissions for malarial fevers. This is stated to be attributable to some extent to the arrival of a regiment which suffered severely while in Crete during the previous summer. Plague was again epidemic among the civil population, but the troops enjoyed comparative immunity, only two admissions and one death occurring. There was a further decline in the admission rate for venereal diseases. A local ordinance having for its object the prevention of the propagation of venereal disease came into operation in November and is said to be working satisfactorily. In India there was a decline in the admission, death, invaliding, and constantly-sick rates. The chief causes of sickness were, as usual, malarial fevers and venereal diseases, which together caused 48·6 per cent. of the admissions for all causes. Malarial fevers, enteric fever, venereal diseases, and dysentery were all less prevalent than in 1898, and there was only one admission for cholera. Notwithstanding the appearance of plague in epidemic form in several localities among the natives only a few cases are recorded among the troops. In Egypt the general health of the troops was very good, the admission, mortality, and constantly-sick rates being considerably lower than in 1898, and also than the decennial average rates. Plague occurred at Alexandria during the year among the civil population, but owing to the strict precautionary measures adopted no case appeared among the troops. Khartoum was in 1899 used as a station for the first time by British troops.

REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD FOR 1899-1900.

II.[1]

Mr. W. H. Power attaches considerable importance to the auxiliary scientific investigations which were carried out during the year by the assistant medical officers of the Local Government Board. The first of these to which he calls attention (Appendix B, No. 1) was an experimental inquiry into the condition which has received the name of "pseudo-tuberculosis," a word which, as Mr. Power points out, was formerly loosely used to include a number of morbid conditions which had nothing intrinsically in common. Of late the term has been employed in a restricted sense to denote a single disease which is pathologically allied to tuberculosis and which affects some of the lower animals, which is transmissible from animal to animal, and which is caused by a bacillus which is not the one that produces tuberculosis. Dr. Klein describes the clinical history and the post-mortem appearances of the disease. Guinea-pigs, rabbits, and mice were the chief animals used in the experiments and in these animals it was found that the disease ran a more rapid course than tuberculosis. The pathological similarity between tuberculosis and pseudo-tuberculosis was seen to be very close, but giant cells were usually absent from the necrosed tissue in the latter disease. Dr. Klein's paper is illustrated by coloured plates and by a large number of micro-photographs. The plates illustrate the morbid naked-eye appearance of the liver and spleen permeated by small white nodules and the first plate would readily have passed in the days of our ignorance for a good representation of organs affected by tuberculous disease. The second and third plates show some of the abdominal organs of a guinea-pig similarly affected, and the fourth plate the appearance produced by the growth of the pseudo-tuberculous bacillus on a potato. There are altogether no fewer than 45 illustrative plates. The pathological and etiological knowledge of the disease which has now been acquired will, Mr. Power believes, be of use in facilitating the detection of the disease and in confirming the diagnosis of tubercle in rodents. Dr. Klein gives exact measurements of the bacillus which produced the disease. He has found that its distribution is somewhat wide, for he has detected it in samples of the unfiltered water of the Thames and Lee, in sewage and in sewage effluents, in milk purchased in London shops, and in milk delivered direct from dairy farms before its arrival at the shops. Dr. Klein does not claim finality for the results of all his numerous experiments; of some he says only that they are highly suggestive and that they deserve repetition.

The second report published in Appendix B, which deals with the bacteriology of scarlet fever, gives the result of an elaborate investigation of the subject by Dr. M. H. Gordon Mr. Power in his summary of the results of this work recalls the fact that Dr. Klein studied the question as long ago as the year 1885 in connexion with an epidemic which it was suspected had been produced by contaminated milk. At a later period Dr. Klein and Dr. Gordon made an inquiry into what have been termed "return cases" of scarlet fever. The results of their investigations convinced them that the disease was due to an organism which they named "streptococcus scarlatinæ" and they believed that the infectiveness of the disease "was judged to be parallel with the presence or with the persistence in the patient's throat" of this micro-organism. The controversy which was raised on the bacteriology of scarlet fever will not have been forgotten. Its general result, Mr. Power says, was that "the conclusions of the Board's investigations were not generally accepted." The fact that streptococci are "morphologically and biologically unstable" makes the differentiation of them "largely a matter of personal equation." In these circumstances it was thought well to commission Dr. Gordon to make a general study of streptococci and to find out how differing conditions altered their biological character. This laborious investigation occupied Dr. Gordon for over two years, and the results of his work certainly deserve careful study. The general conclusions at which he arrived are as follows. 1. Streptococcus scarlatinæ or conglomeratus is a special pathogenic micro-organism distinct from streptococcus pyogenes on the one hand, and from bacillus diphtheriæ on the other. 2. It occurs in the mucous secretion on the surface of the tonsil and fauces in scarlet fever and may persist there in some cases up to a period considerably after the date of attack. 3. It has not been found in four inflamed non-scarlatinal throats examined for it, but on the contrary other virulent streptococci were present in these cases. 4. It may be present in the nasal discharge of scarlet fever. It has not as yet, however, been detected in the aural discharge of that disease. 5 It penetrates the system and can be obtained in pure culture from a serous effusion occurring as a complication in the course of scarlet fever. 6. It may be present in the blood and tissues in fatal cases of scarlet fever and may not infrequently be obtained in pure culture from these sources. 7. The characters of streptococcus scarlatinæ, as isolated from the tonsil of a mild but typical case of scarlet fever, are apt to undergo modification in the tissues of a mouse, and similar modification is found in the case of streptococci obtained from the tissues of a human being in a fatal case. In each instance this modification usually comprises increase of virulence accompanied by diminution of those morphological and cultural characteristics that distinguish the streptococcus scarlatinæ from the streptococcus pyogenes, though close examination shows that sufficient differences exist still to permit identification. The results of Dr. Gordon's observations and experiments, he thinks, "strongly support the view that streptococcus scarlatinæ is the specialised and essential agent of the specific infection known as scarlet fever." In a footnote he adds that "how far streptococcus scarlatinæ merits the epithet specific is a matter for future investigation to decide. The term is for the present better avoided."

Of the other reports contained in Appendix B, three are by Dr. A. C Houston, two by Dr. Klein, and one, containing a preliminary account of the results on bacterioscopic analyses of different cereals and food stuffs, is the result of the researches of Dr. Klein and Dr. Houston. The last report (Appendix 10) records the observations of Mr. H. S. Fremlin on the bacteria found in calf lymph during the process of glycerination. In the order of the frequency of their occurrence it was found that the staphylococcus pyogenes aureus headed the list (500), the staphylococcus pyogenes albus came second, and an unnamed bacillus was third. The effects of glycerine in the various organisms are described in detail and Mr. Fremlin is continuing his researches on the bacteriology of calf lymph, a subject of no small importance in these days of the conscientious objector to vaccination.

Dr. Houston's report on the value of the examination of water for streptococci and staphylococci with a view to the detection of its recent contamination with animal organic matter is of interest to all those who are concerned in the quality of the water supplied to towns from sources which are open to such pollution. The report now published (Appendix B, No. 3) describes Dr. Houston's more recent experiments in a matter which has previously engaged his attention. The general deductions which he draws as to the information really required in the bacteriological analysis of water are as follows. 1. It is a matter of the first importance to have a thorough knowledge of the kind of bacteria which are entitled to be considered "essentially of animal outcome." 2. Accurate knowledge is desirable as to the microbes found in water which are related to morbid processes in man. 3. It is desirable to distinguish between bacterial tests which indicate quite recent pollution from those which indicate less recent pollution, and again to distinguish the latter from those tests which indicate pollution of remote origin (for recent pollution is presumably especially dangerous and pollution of remote date indicates potential rather than actual danger). 4. The presence of the bacillus coli whether in the soil or in water implies recent pollution. For an account of the experiments the article itself must be referred to, but it may be mentioned in passing that the water of the river Brent and that of the Regent's Park Canal received attention. A note appended to Dr. Houston's report refers to the value of a method of research which it may be hoped will receive the attention it deserves as a rough test for indicating the extent to which biological purification has been carried in the case of sewage effluents and of polluted rivers.

---

[1] No. I. was published in The Lancet of June 15th, 1901, p. 1705.

Dr. Houston reports also on the chemical and bacteriological examinations of the washings of soils with reference to the amount and nature of the organic matter and the number and character of the bacteria contained in them (Appendix A, No. 4). This article gives an account of further researches on a subject dealt with in two previous Supplementary Reports of the Medical Officer of the Local Government Board (Appendix B, No. 5, 1898–99, and Appendix B, No. 2, 1897–98). The more recent work consisted of chemical and bacteriological examinations of the washings of soils. The soils, amongst others, which were examined were taken from sewage farms, virgin soil, and the mud of the Thames and of the Brent. The chemical methods adopted in the investigation were those used for the determination of the amount present of free ammonia, albuminoid ammonia, and for the estimation of the amount of oxygen absorbed from permanganate. Biologically the soil waters were examined for the determination of the total number of bacteria, for the spores of aerobic bacteria, for the bacillus coli communis, for the bacillus enteritidis sporogenes (of Klein), and for streptococci.

The conclusions at which Dr. Houston arrives at the end of his three years' inquiry are that soils containing a large proportion of vegetable organic matter, a small proportion of inorganic substances, and little or no animal matter often contain more albuminoid ammonia and absorb more oxygen from organic matter than do soils which contain a large proportion of inorganic substances, and a small proportion of vegetable organic matter, but which are saturated with animal matters of excremental origin. "Washings" from soils enormously and dangerously polluted might contaminate water. This pollution might be chemically inappreciable, yet a like contamination would yield to bacterial examination unequivocal proof of its objectionable origin. The chemical distinction between animal and vegetable organic matter is in great part conjectural in character and fails to define the relative proportions of the different kinds of organic matter present in a substance. Virgin soils do not contain spores of the bacillus enteritidis sporogenes nor of the bacillus coli, nor do they contain streptococci in large numbers. Soils polluted with animal organic matter contain spores of the bacillus enteritidis sporogenes in great quantity. They contain also bacillus coli and streptococci if the contamination be of recent date. The total number of bacteria found in virgin soils is much smaller than that found in polluted soils. The recent derivation of a water from the "washings" of soils can readily be detected by the presence in it of soil microbes and by the large number of spores of aerobic bacteria which it contains.

The inference which Dr. Houston suggests should be drawn from these facts is "that chemistry cannot always be relied on to detect in a water-supply the presence of 'flood water,' much less of 'flood water' of objectionable or dangerous sort, but that bacteriology is capable of appreciating admixture of 'flood water' in comparatively small amount. The presence or absence of spores of the bacillus enteritidis sporogenes further enables the bacteriologist to draw a distinction between 'flood water' derived from soils at one time or another polluted with excremental matters and that which has come from soils free from present or past contamination of objectionable sort. Lastly, the presence or absence of the bacillus coli (or closely allied microbes) and of streptococci allows the bacteriologist to say whether there is or is *not* trustworthy evidence that the 'flood water' has been derived from soils recently polluted with matters of animal outcome."

Dr. Sidney Martin gives a further report on the growth of the typhoid bacillus in soil (Appendix B, 5). The paper has the distinction of being concise, clear, and well written. The experiments conducted by Dr. Martin, as Mr. Power points out, mark a distinct advance in our knowledge of the subject. The results arrived at are the following. 1. Certain cultivated soils, especially garden soils, when sterilised are favourable to the vitality and growth of the typhoid bacillus. Under comparable conditions other virgin or uncultivated soils do not support the bacillus, which rapidly dies. A previously virgin soil which had recently come under grass was found when sterilised to support the life of the bacillus for a certain period but not nearly so long as the more definitely cultivated garden soils. 2. When the typhoid bacillus is added to unsterilised soils, kept very moist and at a temperature of from about 19° to 37° C. it has not been possible to recover it from the soil even after a short period. If, however, the soil be kept in a drier condition and at a low temperature (from 2° to 12° C.) the bacillus can be regained after a certain interval which in these experiments did not exceed 12 days. After this it appeared to die out. 3. The reason of the disappearance of the typhoid bacillus from the unsterilised soils appears to be the antagonism of some of the soil micro-organisms to its growth, and there is some evidence to show that, under the conditions of experiment, the disappearance of the bacillus has taken place *pari passu* with an increase in the number of the putrefactive bacteria. 4. As far as is known the typhoid bacillus has no spores, so that if it once dies it cannot be expected to reappear, unless a fresh inoculation occurs.

The next report is by Dr. Houston and gives an account of a chemical and bacteriological examination of soil obtained from the "fever" and "non-fever" areas at Chichester (Appendix B, 6). It will be more convenient to refer to this paper in connexion with the very able and exhaustive report of Dr. T. Thomson and Colonel Marsh on the prevalence of enteric fever in the city of Chichester.

Dr. Klein's investigation on cockles as the distributing agents of infectious disease (Appendix B, 7) showed that cockles are capable of taking into their interior the microbes of sewage. He found also that raw cockles bought in their shells from a street hawker contained specimens of the bacillus coli and of virulent bacillus enteritidis sporogenes. The report is a preliminary note on a very important inquiry, one part of which is to determine the behaviour of the typhoid bacillus in cockles kept in water polluted with the "material of the typhoid fever."

Dr. Klein's report on the behaviour of certain pathogenic microbes in milk, cream, and cheese (Appendix B, 8) shows that at certain temperatures the tubercle bacillus grows in milk, in cream, and in cheese; that the typhoid bacillus grows in milk and in cream, but not in cheese; that the diphtheria bacillus grows in milk, but not in cream or in cheese: and that the streptococcus scarlatinæ grows well in milk and does not grow well in cream or in cheese. Some interesting points in regard to the growth of the tubercle bacillus were discovered in the course of the experiments.

Dr. Klein and Dr. Houston give a preliminary account of the results of a bacteriological analysis of different cereals and food stuffs. Wheat, oats, rice, and flour from various sources were examined (Appendix B, 9). A number of micro-organisms were discovered, but with the exception of that ubiquitous organism the bacillus enteriditis sporogenes it is comforting to know that they were non-pathogenic.

THE ANNUAL DINNER OF THE ROYAL ARMY MEDICAL CORPS.

THE annual dinner of the Royal Army Medical Corps was held at the Whitehall Rooms of the Hôtel Métropole on Monday, June 17th. Considering the number of officers who are absent on service in South Africa there was a very good attendance, though, of course, the senior members of the service predominated. Surgeon-General J. Jameson, C.B., late Director-General, presided and gave the Royal toasts which were loyally and cordially honoured. He then proposed "The Guests" and alluded to the presence of the civil consulting surgeons who had rendered them such excellent aid in South Africa, pointing out that in affording help in a time of strain to their country they had not only temporarily to break their home ties but also to run many of the risks of war—in fact, one of them, the late lamented Sir W. Stokes, met his death out there He then referred to Sir W. Mac Cormac ("a tower of strength"), Sir F Treves, Mr. Makins, Professor Chiene, Mr. Watson Cheyne, Mr. Lenthall Cheatle, and others. The speaker mentioned the fact that lately he had seen two German attachés who were in South Africa during the war, and on asking them if they could suggest any improvements with regard to our medical service received the reply, "We have *nothing* to suggest"; he also referred to a gentleman from St. Petersburg who said that they greatly admired the medical service and that was the only English service which they did admire. In submitting the toast of "The Guests" he emphasised the great value of the moral support which they had received from the civil consulting surgeons and assured them that the Royal Army Medical Corps cordially congratulated them on the honours which they had so worthily won.

The toast was responded to by Sir **WILLIAM MAC CORMAC**, who bore testimony to the excellent work done in South Africa by the Royal Army Medical Corps, saying that from a considerable experience in other wars as well as in the present one he had no hesitation in saying that the work done by the Army Medical Service in South Africa was as good as, if not even better than, that which had distinguished them in any previous campaign or any similar work in other countries. At the present moment China offered an object lesson of this, for there our Medical Service was admittedly superior to that of our allies. Referring to the difficulties caused by the undermanning of the Royal Army Medical Corps he said that revolutionary changes were often fraught with evil, and in the present instance did not seem to be required. The all essential matter was to procure a sufficiency of men to fill the vacancies in the corps. What was chiefly needed on the part of the authorities and the outside world generally was a much larger measure of sympathy and appreciation for good work well done and without regard for self. The large number of civilian surgeons, some 700 in number, who had served in South [illegible] this. They had witnessed the devotion [illegible] y Medical Corps, which would serve to promote the solidarity between the two branches of the profession.

Sir **FREDERICK TREVES** said that in replying to this toast he had to invert the usual order and refer to the hosts rather than to the guests. He bore tribute to the kindness which had been experienced by the consulting surgeons at the hands of every member of the Royal Army Medical Corps. He then referred to the criticism which had been directed against the Army Medical Service and described it as being in many particulars unfair and un-English, and said that Sir William MacCormac and he had taken the earliest opportunity on their return to England of expressing their high opinion of the services of the Royal Army Medical Corps. He referred to the services of Surgeon-General Jameson at headquarters at home and said that he had every single detail of the department at his finger-tips. In South Africa itself he was surprised to find how wonderfully the work was done, seeing that surgery in war was attended with all sorts of difficulties and not to be conducted as it was at home in a hospital. In passing he mentioned the pleasure it was to civil surgeons to serve under Colonel Stevenson. He referred to the great abilities of Sir Thomas Gallwey in Natal as an organiser and remarked that he had become an expert in the art of commandeering. Lieutenant Colonel Babtie, V.C., too, was noticeable for his powers of organisation, whilst the splendid deed performed by him at Colenso would cause his name to live in history. He mentioned the services at Durban of Major MacCormack and at Pietermaritzburg of Major Dodd. In conclusion, he observed that to obtain a proper estimate of the work of the Royal Army Medical Corps the opinions of two classes should be sought—namely, of the civil surgeons and of the sick and the wounded. He could only say that any corps would be proud of that testimony—testimony borne, be it remarked, by the people who really knew.

Professor **CHIENE** endorsed all that had been said by Sir William MacCormac and Sir Frederick Treves and said that the work that he had seen done as he passed through Wynberg, Kimberley, Mafeking, Johannesburg, and Pretoria was work equal to that done in any civil hospital, and as to the criticisms which had been directed against the medical service all that he could say was that he simply did not understand it. The work done by the Royal Army Medical Corps was work that no civil surgeon could be ashamed of. "We do not believe a word said against you," remarked Professor Chiene. He then proceeded to allude to the enormous difficulties that beset them and the way in which they had been met, and added that the work out there had been well done because Surgeon-General Jameson was at the head of affairs at home. He had come that day from Edinburgh to be present at the dinner in order to support Surgeon-General Jameson and to indicate on behalf of the profession in Scotland their opinion of his work.

Surgeon-General **O'DWYER** then proposed the health of Surgeon-General Jameson, a toast which was most warmly received and greeted with musical honours.

Surgeon-General **JAMESON**, in reply, thanked the officers and guests for the cordial way in which they had received him. He referred to the difficulties of the campaign and bore tribute to the excellent assistance which he had received from his colleagues at headquarters. "Never," he said, "had a Director General been better served." As to the future he had little fear; they would work out their own salvation. The alterations that were needed could be counted on a man's fingers; but one thing was indispensable: the *personnel* must be increased and to that end the service must be rendered attractive. There was the whole pith of the matter. It was also desirable that more sympathy should be extended to them from outside Although he had no longer official connexion with the Army Medical Service he could assure them that his interest in the department would never cease, and he felt confident that the cloud which had so suddenly arisen and was now hanging over them would as suddenly disappear.

During the evening the band of the Royal Army Medical Corps played an excellent selection of music.

THE ANNUAL DINNER OF THE INDIAN MEDICAL SERVICE.

THE annual dinner of the Indian Medical Service was held at Princes Restaurant, Piccadilly, London, W., on June 13th, Surgeon General R. Harvey, C B, D S O, Director-General of the Service, being in the chair. There was a good attendance which doubtless would have been even better had it not been for the trying circumstances through which India has lately been passing—plague, famine, and the wars in China and South Africa having made heavy claims upon the services of Indian medical officers.

The usual loyal toasts having been given by the Chairman and duly honoured, "The Sister Services" was proposed by Surgeon-General Sir Joseph Fayrer, who alluded to the good work that had been done by the services in the South African war and quoted the report of the Royal Commissioners in support of his statements.

Sir Henry F. Norbury, Director-General of the Royal Navy Medical Service, in replying, said that up to the present time there had been at the several examinations a sufficiency of competent candidates, and no gentleman had received a commission as a medical officer in the Royal Navy who had not been considered quite professionally competent by the board of examiners. The war in China had, as far as the medical department of the navy was concerned, at one time been beset with much greater difficulties than it had experienced in South Africa, and in China the way in which the arduous medical work had been carried out had been most favourably reported on by Vice-Admiral Sir E. Seymour, G C B, the Commander-in Chief on that station. Surgeon-General A F. Preston, A M.S, also briefly acknowledged the toast.

"The Indian Medical Service" was then proposed by Surgeon-General Harvey, who said that it would be manifestly improper for him to discuss the various schemes for the improvement of the medical services that were at once to be, or had been, put forward These schemes would receive the most careful consideration from the Government of India, and he believed that the Service was patriotic enough to accept any changes which might be considered necessary in the real interests of the State. He did not think, however, that any change disastrous to the Service could possibly be in the interests of the State, and he therefore considered that the Service might regard whatever proposals might be put forward with equanimity. As these subjects were tabooed he would say a few words as to certain misconceptions which seemed to exist as to the conditions in the Service itself and the relations of the Government of India to the Service. There was said to be much discontent in the Service, but this was mainly due to the one great grievance—the constant interference with leave. Steps had been taken to remedy this and he thought that most of the other grievances were more or less imaginary. A complaint had recently appeared in a medical journal that the pay on entry to the Service was

286 rupees. A statement of this kind, if true, would tend to make good men hesitate to enter the Service, and he could not conceive what good the author of it expected to gain by appealing to the papers instead of representing the matter to his departmental superior. The statement, however, was the reverse of true, for the minimum was raised from 286 to 317 rupees more than 16 years ago, and further raised to 350 rupees four years ago, so that with this and exchange compensation allowance the pay of the junior officers was some 30 per cent. higher than the amount stated. Another grievance recently put forward was that the pensions of civilians was much larger than those of the Service, but the inventor of this one was probably not aware that every civilian contributed more than half of his own pension, while the medical pensions were given by the State without any contribution from the officers concerned. He had recently been asked whether it was true that medical officers had to act as butlers to their brother officers. This was a very coarse way of expressing the fact that regimental medical officers were frequently asked to be managers of the mess. In all regiments some officer had to do this, and he was proud to say that he had had the honour to be "butler" to the Central India Horse during the greater part of the time he had belonged to the regiment. He had seen a recent complaint that the work of a civil station and the responsibility of a jail were too heavy and exposed a man to risk of having to answer for the misdeeds of his subordinates, but he was glad to think that what most men wanted was the opportunity for hard work and responsibility, and he knew that if they did their work properly subordinate officials would have no chance of involving them in loss. One other point he would like to allude to. Two years ago their secretary had stated that he knew of no instance of a man receiving any proper acknowledgment for distinguished work in the ordinary lines of the profession. That was, unfortunately, true, speaking as he was of purely surgical and medical work, but the six appointments of Honorary Physician and Surgeon to the King were intended to reward such. A gentleman in a medical journal had, however, given a new complexion to the complaint by saying that with the single exception of Dr. D. D. Cunningham no man had ever been rewarded for good professional work. This statement also would tend to deter good men from entering a service where there were no rewards for merit, but in this extended sense it happened to be entirely untrue, since representatives of every other branch of the profession had from time to time been decorated for good work in botany, physiology, hygiene, obstetrics, and gynæcology, medical jurisprudence, college and jail, plague, and famine, work, while a distinguished chemist's name was before the Government for recognition when he unfortunately died, and Mr. Haffkine, who, though not a member of, was in intimate relation with, the Service, had received a C.I.E. for bacteriological work in connexion with cholera and plague. The Government of India was frequently accused of indifference to the interests of the Service and particularly of neglect to further medical research. He had recently read how the perverse imbecility of an administrative pedant had thwarted Major Ronald Ross in his most valuable and distinguished work by taking him away from the scene of his labours and setting him to routine work which anyone else could have done as well. The truth was exactly the other way. The Government of India had taken Major Ross from routine work, put him on special duty to investigate the malaria problem, given him 200 rupees a month additional pay when so employed, and had thus given him the opportunity and the leisure without which his valuable discoveries might not have been completed. They were associating one of their own officers with the envoys sent to India by the Royal Society to investigate Indian fevers, and he hoped it might be found possible to send an officer with Major Ross on his new expedition to Africa. The Government of India had given an allowance which had enabled the committee of which he had the honour to be President to start the Pasteur Institute of India which was doing admirable work. They had started a new alienist department and sanctioned the scheme for research laboratories. The central laboratory would be started at once and the provincial laboratories would follow as funds became available. He thought, therefore, that he had shown that the Government of India was alive to its responsibilities and that the Service held out as good opportunities as ever to good men. He knew of no service in the world which gave so many opportunities of doing good. It gave to its most unfortunate member a reasonable subsistence and a fair pension, while to many of its members it gave good, and to some very valuable, prizes, with the chance of honours and distinctions. He believed that the Service would continue to deserve well of the country in the future as in the past, and he invited them to drink to this most desirable consummation.

"The Guests" was proposed by Dr. W. S. Playfair, and responded to by Dr. F. W. Pavy, who referred humorously to the physiology of dining.

Lieutenant-Colonel Lyon then rose and said that they must not forget to thank Mr. Freyer, who had acted as secretary of the dinner and to whom, indeed, was due the credit for the initiation of the annual dinner of the Indian Medical Service.

Mr. Freyer, in replying, laid stress on what, in his opinion, was a great grievance—namely, that honours were not given as they should be for good work done purely in surgery and medicine which lay at the very foundation of the work of the Service.

During the course of the toast-list Surgeon-General Sir Joseph Fayrer mentioned that a history of the Indian Medical Service was being written by Surgeon-General Beatson.

In the intervals between the toasts the pleasure of the evening was enhanced by Mr. Percy French who sang amusing Irish songs and drew in chalks topsy-turvy pictures which would, we imagine, delight the author of the "Bab Ballads."

The following is a list of the officers and guests present:—

Surgeon-Generals: W. B. Beatson, Sir J. Fayrer, Bart., K.C.S.I., F.R.S., W. R. Rice, C.S.I., and O. Sibthorp, C.B. *Colonels:* W. E. Oates, H. Cayley, D. E. Hughes, J. O. Penny, W. H. Roberts, and D. O. O'O. Raye. *Lieutenant-Colonels:* O. Baker, S. H. Browne, C.I.E., A. Crombie, E. F. H. Dobson, P. J. Freyer, T. J. Greany, P. de H. Haig, D. F. Keegan, Sir George King, K.C.I.E., Sir A. S. Lethbridge, K.C.S.I., I. B. Lyon, C.I.E., R. Macrea, H. McCalman, G. Massy, R. D. Murray, E. Palmer, J. Parker, W. A. Simmonds, J. F. Tuohy, R. R. H. Whitwell, and A. H. Williams. *Majors:* J. W. Caldwell, E. R. W. C. Carroll, T. E. Dyson, F. J. Drury, S. Hassan, and O. T. Hudson. *Captains:* S. Dallas, G. G. Giffard, P. P. Kilkelly, A. E. H. Pinch, and E. E. Waters; and Dr. W. S. Playfair.

Guests: Sir H. F. Norbury, K.C.B., Surgeon-General A. F. Preston, A.M.S., Dr. F. W. Pavy, F.R.S., President of the Royal Medical and Chirurgical Society, Mr. John H. Morgan, F.R.C.S., President of the Medical Society of London, Dr. J. E. Squire, and Mr. Thomas Wakley, jun.

MIDLAND MEDICAL UNION.

A MEETING of the Nottingham branch of the above Union was held at the Masonic Hall, Nottingham, on June 12th, Mr. G. B. WRAY being in the chair.

Mr. O. J. PALMER (Mansfield) reported on the work done in his district. 1. An ironworks club which had proposed to alter its form of payments so that an average pay of from 18*s*. to 20*s*. per accident should be reduced to 15*s*. had been told that its suggestion was not agreeable to the surgeons (18 or 20 in number). The club thereupon gave way and continued the old rate. 2. Most of the friendly societies in the neighbourhood were paying 4*s*. per member and were now being approached with a view to having that fee raised. 3. The guinea midwifery fee was generally adopted except in one or two colliery villages. In the case of Dr. W. C. Rainsbury (Teversall), who had received notice after adopting this fee, another surgeon had been engaged, but there were strong reasons for hoping that Dr. Rainsbury would eventually be reinstated on his own terms.

Dr. E. H. HOUFTON (Shirebrook) said that a similar condition of things was to be reported from Chesterfield. Most of the clubs had been raised to 4*s*. and arrangements were in progress to meet delegates from the friendly societies with a view to a further rise. Dr. Houfton pointed out that one or two of the men who still refused to adopt the guinea midwifery fee (and so stood in the way of others) were men in good position who perhaps charged full fees themselves; but having very large practices they allowed their assistants to take 15*s*. and even 10*s*. 6*d*. Such men could better afford to risk losing a few shillings than many of those who had taken the risk and gained the point.

The following motions (previously passed at Mansfield and Chesterfield) were put from the chair, seconded by Dr. J. H. THOMPSON (Nottingham), and carried unanimously:—

[illegible] objects of the Union.

Dr. W. HUNTER (Nottingham) congratulated the Mansfield and Chesterfield branches on what had been done. It showed that something could be done if men stood together. He thought that further efforts should be made to interest the profession in Nottingham as there were plenty of things to discuss and many matters that could be improved upon by concerted action.

The question of an indemnity fund was next raised. At meetings held recently at Chesterfield and Mansfield it was unanimously resolved that a fund should be commenced for the purpose of fighting to a conclusion the question of the increase in remuneration for contract work, &c., and more particularly for the purpose of aiding financially any of the members who might need such help in consequence of their loyally abiding by the Union. It was further resolved that subscription to this fund should not be compulsory, but that in the case of a member applying to be indemnified from this fund who was not a subscriber to it the granting of any money should be left to the president and vice-president, who should decide whether there were special circumstances entitling such members to relief. It was further resolved that members should be asked to guarantee five guineas, or multiples of five guineas, so that in the event of indemnity being required the money might be called up in the proportion promised. The sums promised up to the present amount to over 300 guineas. Further promises are solicited, but will not be called up unless required.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Southampton Port Sanitary District.—The efficiency of port sanitary administration in the port of Southampton is of special significance at this moment when, bubonic plague being present in South Africa, large numbers of troops are returning from the Cape and the Transvaal to this country and notably perhaps to Southampton. The regulations relative to plague, yellow fever, and cholera drawn up by Mr. A. Wellesley Harris, the medical officer of health, indicate that vigorous steps are being taken at Southampton and that the plague order of the Local Government Board is being liberally interpreted. It seems to be the practice to require all vessels from infected ports to bring up opposite Netley and there to await the visit of the medical officer of health. Moreover, a list of ports regarded as infected is drawn up by this officer and furnished to the Customs officers, pilots, ship-owners, and masters. This is in our view the proper arrangement, and we think that all port medical officers of health should endeavour to bring about similar inspections of vessels from infected ports. The regulations referred to contain, besides the list of infected ports, a concise synopsis of the symptoms of plague in one or another form, a caution as regards rats, directions for obtaining material for cases of suspected plague, a recommendation as to vessels being provided with a supply of Yersin's serum which, in the view of Mr. Harris, is both prophylactic and curative, and, lastly, a recipe for the preparation of a useful disinfecting solution.

Bristol Port Sanitary District.—This annual report might not inappropriately be termed "the rat report," seeing that a large portion of it is taken up with wholesome considerations as to the dangers of allowing rats from "infected" or "suspected" ports to have access to the shore and to hold communication with local rats. Dr. D. S. Davies and Mr. J. O. Heaven, the port medical officers of health, furnish in their report an interesting synopsis of much of the evidence which associates plague in rats with that in the human species. The writers of the report liken plague to typhus fever in respect of infectivity; but although this is an oft-quoted parallel we doubt if the bubonic type of plague at all approaches typhus fever in its infective power. With regard, however, to pneumonic plague a different story has to be told, its power of infectiveness being quite equal, if not above, that of typhus fever in modern days. To revert, however, to the question of rats there is no doubt that the part which they take in the diffusion of plague varies enormously in different outbreaks. In Sydney, as Dr. Davies and his colleague point out, the association of rats with the outbreak of plague in human beings was most marked, but, on the other hand, there is not sufficient evidence to show that either in the case of Oporto or Glasgow were these rodents instrumental in conveying disease. In the report which is now before us a summary is given of the measures of precaution adopted at sundry places in the direction of control of rats. A useful addition might have been made to this information by including the regulations as to ship-berthing which are in force in Melbourne and Sydney. In these regulations the master is required to sign a deed undertaking to fulfil all the conditions if his vessel is allowed to proceed to her berth and immediately to take her out of harbour on request. Among these regulations we note that the vessel is to be kept off from the wharf by means of fenders for a distance of at least four feet; fresh tar is to be applied to each end of the hawser or rope, such tar to be kept moist by repeated applications; all gangways are to be drawn up when not wanted for the discharge of cargo; and the ship's sides are to be well lighted by means of electric or other lights. We notice that Dr. Davies refers to a recommendation by Dr. Calmette that the discharge of cargo, especially grain and cotton, from places where plague exists should be strictly forbidden until the most rigorous inspection has been made. Bales and sacks should be opened and their contents emptied out and examined. "If any dead rats are found the whole must be destroyed without the ship being allowed to touch the quay." This is a far-reaching recommendation on the part of Dr. Calmette and it is difficult to believe that he entirely comprehends the magnitude of it or that he has given such advice without at least ascertaining that the rats died from plague. Dr. Davies himself furnishes a most instructive narrative which admirably illustrates the difficulty of dealing with a vessel thus circumstanced; and it is well that all port medical officers of health should be aware of it. On Jan. 22nd of this year it was reported that six rats had been found dead in the forehold of a vessel which had arrived on Jan. 20th at Bristol from Smyrna, with her crew all well. The vessel at the time of this discovery was discharging a cargo of barley and valonia by the quay-side in the centre of the city. One of the dead rats was examined by a local bacteriologist and the presence of plague was strongly suspected. It was not, however, deemed desirable to take definite action upon this suspicion, and, the watch on the vessel being redoubled and other precautions being taken, the report of the Local Government Board, to whom other rats had been sent, was awaited. On Jan. 27th the fact that the rats were infected with plague was announced by the central Board, and the ship in question was certified as "infected" under the terms of the plague order. Apparently she was sent into mid-stream and her holds were thoroughly fumigated with sulphur. After this the rest of the cargo was discharged and a second fumigation was carried out. The men who had unloaded the ship were kept under observation for 14 days. As Dr. Davies adds, the circumstances connected with this vessel raise some interesting points. Before confirmation of the rat examination three-fourths of the cargo had been discharged. Dr. Calmette would, it seems to us, have recalled this three-quarters and destroyed it, together with the remaining fourth. The Bristol sanitary authority, on the other hand, "disinfected" the remaining fourth, but apparently let the bulk of the cargo go, notwithstanding the fact that it was not improbably interspersed with rat dejecta, some of which may have been specifically fouled. But Dr. Davies acted in the only practicable fashion, and it is perfectly clear that he is as alive as any medical officer of health in this country to the dangers which threaten our ports. Theory and practice, however, are difficult to combine on board ship and in cases where cargoes worth perhaps many thousands of pounds are at stake. As with Southampton, so with Bristol, the medical officer of health has drawn up a list of infected ports. Dr. Davies and Mr. Heaven, whose report is most interesting, supply a map of the world showing the places where plague has occurred since January, 1899.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6203 births and 3189 deaths were registered during the week ending June 15th. The annual rate of mortality in these towns, which had been 16·7, 16 3, and 15·2 per 1000 in the three preceding weeks, further declined last week to 14·5 per 1000. In London the death-rate was 13 7 per 1000, while it averaged 15 1 in the 32 large provincial towns. The lowest death-rates in these towns were 8 5 in Croydon, 9 5 in Cardiff, 9 8 in Derby, and 10 4 in Portsmouth; the highest rates were 19 4 in Preston, 20·5 in Sunderland, 22 6 in Swansea, and 22 7 in Gateshead. The 3189 deaths in these towns last week included 357 which were referred to the principal zymotic diseases, against 387, 361, and 320 in the three preceding weeks; of these 114 resulted from measles, 78 from whooping-cough, 61 from diarrhœal diseases, 41 from diphtheria, 39 from scarlet fever, and 24 from "fever" (principally enteric). No death from any of these diseases was registered last week either in Plymouth, in Norwich, in Derby, or in Huddersfield; in the other towns they caused the lowest death-rates in Cardiff, Burnley, and Newcastle, and the highest rates in West Ham, Swansea, Wolverhampton, Bolton, and Gateshead. The greatest mortality from measles occurred in West Ham, Birmingham, Wolverhampton, Bolton, and Gateshead; from scarlet fever in Preston; from whooping-cough in Swansea, Wolverhampton, and Gateshead; and from diarrhœal diseases in Wolverhampton and Blackburn. The mortality from "fever" showed no marked excess in any of the large towns. The 41 deaths from diphtheria included 13 in London, four in Liverpool, four in Salford, and four in Leeds. No fatal case of small-pox was registered last week in any of the 33 large towns; only one small-pox patient was admitted into a Metropolitan Asylums hospital during the week, and one remained under treatment on Saturday last, June 15th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2594, against numbers increasing from 1522 to 2462 on the seven preceding Saturdays; 323 new cases were admitted during the week, against 341, 317, and 314 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 240 and 187 in the two preceding weeks, further declined last week to 159, and were 68 below the corrected average. The causes of 31, or 1·0 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Nottingham, Salford, Hull, and in 13 other smaller towns; the largest proportions of uncertified deaths were registered in Wolverhampton, Liverpool, Halifax, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20 7, 20·1, and 19 6 per 1000 in the three preceding weeks, further declined to 16 9 per 1000 during the week ending June 15th, but showed an excess of 2·4 per 1000 over the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 12 5 in Aberdeen and 15 7 in Paisley to 17·8 in Glasgow and 19 8 in Greenock. The 539 deaths in these towns included 32 which were referred to whooping-cough, 17 to measles, 17 to diarrhœa, three to scarlet fever, three to diphtheria, and three to "fever." In all, 75 deaths resulted from the principal zymotic diseases last week, against 94, 97, and 102 in the three preceding weeks. These 75 deaths were equal to an annual rate of 2·4 per 1000, which was 0·8 above the zymotic death-rate last week in the 33 large English towns. The fatal cases of whooping-cough, which had been 40, 47, and 48 in the three preceding weeks, declined again last week to 32, of which 16 occurred in Glasgow, nine in Edinburgh, three in Dundee, and two in Paisley. The deaths from measles, which had been 17 and 21 in the two preceding weeks, declined agai to 17 last week, and included nine in Glasgow, tw in Edinburgh, two in Dundee, and two in Greenocl The fatal cases of diarrhœa, which had been 30, 2 and 18 in the three preceding weeks, further decrease last week to 17, of which nine were registered in Glasgo and five in Edinburgh. The deaths referred to different form of "fever," which had been three and six in the two preceding weeks, declined again to three last week and a occurred in Glasgow. The mortality from diphtheria showe a slight decline from that recorded in recent weeks, whil that from scarlet fever was slightly in excess. The death referred to diseases of the respiratory organs in these towns which had been 107 and 98 in the two preceding week rose again last week to 101, and were equal to the numbe in the corresponding period of last year. The causes of 31 or nearly 6 per cent., of the deaths in these eight towns las week were not certified.

HEALTH OF DUBLIN.

The annual rate of mortality in Dublin, which had been 24 3 21·3, and 20 0 per 1000 in the three preceding weeks, furthe declined to 19 6 per 1000 during the week ending June 15th During the past four weeks the death-rate in the city ha averaged 21·3 per 1000, the rates during the same period bein 14·7 in London and 20·3 in Edinburgh. The 141 deaths o persons belonging to Dublin registered during the week unde notice showed a decline of three from the number in th preceding week, and included eight which were referred t the principal zymotic diseases, against five and nine in th two preceding weeks; of these, four resulted from diarrhœa, three from whooping-cough, and one from "fever." These eight deaths were equal to an annual rate o 1·1 per 1000, the zymotic death-rates during the same period being 1·6 in London and 2 9 in Edinburgh. The mortality from diarrhœa showed a marked increase upon that recorded in any recent week, while the deaths from whooping-cough, which had been five, two, and five in the three preceding weeks, declined again last week to three. The 141 deaths in Dublin last week included 27 of children under one year of age and 40 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons showed a slight excess on the numbers in the preceding week. Nine inquest cases and six deaths from violence were registered, and 39, or more than one-fourth, of the deaths occurred in public institutions. The causes of 12, or nearly 9 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING MAY, 1901.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality in each of the 29 cities and boroughs in the county of London. With regard to the notified cases of infectious diseases it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to an annual rate of 8·5 per 1000 of the population, provisionally estimated at 4,543,757 persons in the middle of the year. In the three preceding months the rates had been 5·8, 5·3, and 5 2 per 1000 respectively. The rates were considerably below the average in Kensington, the City of Westminster, Stoke Newington, Wandsworth, and Woolwich; while they showed the largest excess in Fulham, Hackney, Finsbury, Shoreditch, and Bethnal Green. Three cases of small-pox were notified in London last month; of these, one belonged to St. Marylebone, one to Islington, and one to Bethnal Green. One small-pox patient was admitted into a Metropolitan Asylums hospital during the month, and remained under treatment on Saturday, June 1st. Scarlet fever was excessively prevalent last month; among the various metropolitan boroughs this disease showed the greatest proportional prevalence in Fulham, Finsbury, the City of London, Shoreditch, and Bethnal Green. The Metropolitan Asylums hospitals contained 2291 scarlet fever patients at the end of May, against 1791, 1533, and 1491 at the end of the three preceding months; the weekly admissions averaged 339, against 156, 142, and 179 in the three preceding months. The prevalence of diphtheria also showed a marked increase over that recorded in recent months; this disease was proportionally most prevalent in Hackney, Shoreditch, Bethnal Green, Poplar, and Deptford boroughs. There were 1101 diphtheria patients

(*Specially compiled for* THE LANCET.)

Cities and Boroughs.	Estimated population in the middle of 1901.	Notified Cases of Infectious Disease. Small pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Deaths from Principal Infectious Diseases. Small-pox.	Measles.	Scarlet fever.	Diphtheria.*	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœal diseases.	Total.	Annual rate per 1000 persons living.	Deaths from all causes.	Death rate per 1000 living.	Deaths of infants under one year to 1000 births.
LONDON...	4,543,757	3	2082	1027	3	155	3	29	387	—	3683	8·5	1	202	75	90	249	—	24	—	77	718	1·6	6702	15·4	112
West Districts.																										
Paddington	144,154	—	43	29	—	5	—	3	7	—	87	6·3	—	—	1	5	9	—	—	—	1	16	1·2	174	12·6	90
Kensington	176,737	—	36	24	2	3	—	—	16	—	81	4·8	—	2	1	5	3	—	—	—	3	14	0·8	225	13·3	113
Hammersmith	112,819	—	44	24	—	3	—	—	11	—	82	7·6	—	1	1	2	13	—	1	—	2	20	1·9	147	13·6	122
Fulham	138,426	—	85	36	—	9	—	—	12	—	142	10·7	—	2	3	3	20	—	—	—	4	32	2·4	182	13·7	112
Chelsea	73,879	—	23	10	—	3	—	—	7	—	43	6·1	—	6	—	1	—	—	—	—	2	9	1·3	124	17·5	157
City of Westminster	182,502	—	43	26	—	15	—	—	7	—	91	5·2	—	—	3	2	13	—	6	—	1	25	1·4	254	14·5	72
North Districts.																										
St. Marylebone	133,060	1	43	32	—	3	—	1	19	—	99	7·6	—	2	1	2	7	—	—	—	3	15	1·2	200	15·7	90
Hampstead	82,237	—	23	19	—	3	—	—	3	—	48	6·1	—	—	—	2	2	—	—	—	1	5	0·6	81	10·3	105
St. Pancras	235,297	—	128	59	—	6	—	1	20	—	214	9·5	—	4	4	4	14	—	2	—	3	31	1·4	349	15·5	120
Islington	335,325	1	94	77	—	9	—	4	28	—	213	6·6	—	4	3	7	13	—	4	—	3	34	1·1	473	14·9	116
Stoke Newington	51,328	—	10	9	—	1	—	1	2	—	23	4·7	—	1	1	1	—	—	—	—	—	3	0·6	55	11·2	95
Hackney	219,720	—	95	86	—	9	—	1	30	—	221	10·5	—	4	3	9	7	—	—	—	2	25	1·2	297	14·1	106
Central Districts.																										
Holborn	59,205	—	23	13	—	—	—	—	10	—	51	9·0	—	3	—	2	—	—	—	—	2	7	1·2	90	15·9	82
Finsbury	101,253	—	73	23	—	3	—	2	7	—	113	11·6	—	3	2	5	3	—	—	—	3	21	2·2	215	22·1	147
City of London	25,627	—	17	6	—	1	—	—	2	—	26	10·2	—	—	—	—	—	—	—	—	—	—	—	43	18·8	94
East Districts.																										
Shoreditch	118,554	—	220	44	—	8	1	—	18	—	291	25·8	—	6	6	1	9	—	1	—	1	24	2·1	214	18·8	131
Bethnal Green	129,700	1	238	63	—	4	—	2	16	—	324	26·1	1	10	15	5	5	—	—	—	—	35	2·9	216	17·4	98
Stepney	298,824	—	102	78	—	12	—	5	28	—	225	7·9	—	20	1	8	13	—	3	—	7	52	1·8	530	18·5	119
Poplar	168,887	—	58	47	—	11	—	1	20	—	137	8·5	—	24	4	5	14	—	—	—	5	52	3·2	305	16·8	111
South Districts.																										
Southwark	206,219	—	90	43	—	6	—	—	12	—	151	7·6	—	26	4	2	15	—	—	—	4	51	2·8	371	18·8	123
Bermondsey	130,348	—	76	35	—	4	—	—	11	—	126	10·1	—	10	3	4	16	—	2	—	4	39	3·1	241	19·3	169
Lambeth	302,460	—	86	54	—	7	1	2	24	—	174	6·0	—	13	3	1	19	—	1	—	5	42	1·4	448	15·4	97
Battersea	169,764	—	65	21	—	3	—	1	6	—	93	6·1	—	14	1	2	13	—	—	—	5	35	2·2	204	12·6	102
Wandsworth	233,913	—	81	22	—	7	—	2	18	—	130	5·8	—	7	1	—	9	—	1	—	3	21	0·9	261	11·6	77
Camberwell	259,897	—	120	61	—	5	1	2	23	—	212	8·5	—	18	9	7	9	—	2	—	3	48	1·9	372	14·9	176
Deptford	110,732	—	43	36	—	2	—	—	4	—	85	8·0	—	11	3	1	7	—	—	—	—	22	2·1	170	16·0	181
Greenwich	90,183	—	42	10	—	6	—	—	16	—	74	8·0	—	9	1	1	9	—	1	—	—	21	2·3	138	16·0	100
Lewisham	122,423	—	48	20	—	2	—	1	4	—	75	6·1	—	1	1	2	4	—	—	—	1	9	0·7	143	11·6	70
Woolwich...	117,619	—	26	12	—	2	—	—	5	—	45	4·0	—	1	—	1	3	—	—	—	4	9	0·8	170	15·1	101
Port of London	—	—	2	—	—	3	—	—	1	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including membranous croup.

under treatment in the Metropolitan Asylums hospitals at the end of May, against 1111, 1084, and 960 at the end of the three preceding months; the weekly admissions averaged 160, against 136, 134, and 117 in the three preceding months. Enteric fever was slightly more prevalent last month than in the preceding month; among the various metropolitan boroughs the greatest proportional prevalence of this disease occurred in Fulham, City of Westminster, Shoreditch, Poplar, and Greenwich. The number of enteric fever patients under treatment in the Metropolitan Asylums hospitals, which had been 224, 162, and 121 at the end of the three preceding months, had further declined to 95 at the end of May; the weekly admissions averaged 14 last month, against 25, 18, and 16 in the three preceding months. Erysipelas was proportionally most prevalent in St. Marylebone, Hackney, Holborn, Shoreditch, and Greenwich. The 29 cases of puerperal fever included five in Stepney, four in Islington, and three in Paddington.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various metropolitan boroughs, the deaths occurring in the public institutions of London having been distributed among the various boroughs in which the deceased persons had previously resided. During the five weeks ending June 1st the deaths of 6702 persons belonging to London were registered, equal to an annual rate of 15·4 per 1000, against 19·8, 18·2, and 17·6 per 1000 in the three preceding months. The lowest death-rates last month in the various metropolitan boroughs were 10·3 in Hampstead, 11·2 in Stoke Newington, 11 6 in Wandsworth and in Lewisham, and 12·6 in Paddington and in Battersea; the highest rates were 18·5 in Stepney, 18 8 in the City of London, in Shoreditch, in Poplar, and in Southwark, 19·3 in Bermondsey, and 22·1 in Finsbury. During the five weeks of May 718 deaths were referred to the principal zymotic diseases; of these, one resulted from small-pox, 202 from measles, 75 from scarlet fever, 90 from diphtheria, 249 from whooping-cough, 24 from enteric fever, 77 from diarrhœal diseases, and not one either from typhus fever or from any ill-defined form of continued fever. No deaths from any of these diseases occurred last month in the City of London; among the various metropolitan boroughs they caused the lowest death-rates in Kensington, Hampstead, Stoke Newington, Lewisham, and Woolwich, and the highest rates in *Fulham, Bethnal Green*, Poplar, Southwark, and Bermondsey. The fatal case of small-pox was that of a person belonging to Bethnal Green. The 202 deaths from measles showed a decline of 178 from the average number in the corresponding periods of the 10 preceding years; this disease was proportionally most fatal in Chelsea, Poplar, Southwark, Deptford, and Greenwich. The 75 fatal cases of scarlet fever slightly exceeded the corrected average; among the various metropolitan boroughs the greatest proportional mortality from this disease occurred in Shoreditch, Bethnal Green, Poplar, Bermondsey, Camberwell, and Deptford. The 90 deaths from diphtheria were only about one-half of the corrected average number; this disease was proportionally most fatal in Paddington, Hackney, Finsbury, Bethnal Green, and Holborn. The 24 fatal cases of "fever" showed a marked decline from the average number in the corresponding periods of the 10 preceding years; the highest "fever" death-rates occurred in the City of Westminster, Islington, Stepney, and Bermondsey. The 77 deaths from diarrhœal diseases were almost equal to the average number; these diseases were proportionally most fatal in Fulham, Holborn, Finsbury, and Woolwich boroughs. In conclusion, it may be stated that the aggregate mortality from these principal zymotic diseases in London during May was nearly 29 per cent. below the average.

Infant mortality in London last month, measured by the proportion of deaths of children under one year of age to registered births, was equal to 112 per 1000. The lowest rates of infant mortality were recorded in Paddington, the City of Westminster, St. Marylebone, Holborn, Wandsworth, and Lewisham; and the highest rates in Chelsea, Finsbury, Shoreditch, Bermondsey, and Camberwell.

A TABLET placed in the Church of St. Andrew, Holborn, in memory of the late Dr. William Marsden, the founder of the Royal Free Hospital, was unveiled on Wednesday last by Archdeacon Sinclair. The tablet, which is set in one of the panels on the right of the entrance to the church, is the gift of the Cordwainers' Company.

METROPOLITAN HOSPITAL SUNDAY FUND.

THE following is a record of some of the principal amounts that have been received in aid of the Fund up to the time of going to press on Thursday. The total sum then amounted to £25,000. At the corresponding period last year the total was £24,000:—

	£	s.	d.
Mr. George Herring	10,000	0	0
Sir Fredk. L. Cook, Bart., M.P.	4000	0	0
St. Michael's, Chester-square	1228	0	0
All Saints', Ennismore-gardens	459	0	0
St. Mary's, Bryanston-square	272	0	0
St. Nicholas, Chislehurst	269	0	0
St. Paul's Cathedral	229	9	9
Delta	200	0	0
"A. G. P."	200	0	0
Westminster Abbey	177	0	0
All Saints', North Peckham	166	0	0
Holy Trinity, Tulse Hill	161	0	0
Christ Church, Mayfair	131	0	0
Holy Trinity, Roehampton	104	0	0
St. Paul's Presbyterian Church, Westbourne-grove	101	0	0
A. T.	100	0	0
St. John's Wood Presbyterian Church	100	0	0
St. John's Presbyterian Church, Kensington	100	0	0
The Earl of Cranbrook	50	0	0
Sunday Concert Society, Queen's Hall	50	0	0
Mr. Walter Cunliffe	25	0	0
Mr. Fredk. Druce	25	0	0
Mr. Norman McCorquodale	25	0	0
Mr. Alex. Miller	25	0	0
Mr. and Mrs. Chas. E. Layton	42	0	0
St. John's, Ealing Dean	27	0	0
St. Mary's, Finchley, Parish Church	32	0	0
St. Mary's Old Church, Stoke Newington	36	0	0
In Memoriam Crosby Lockwood, S.L. and D.E.L.	20	0	0
St. Matthew's, Brixton	46	0	0
St. James's, Camberwell	31	0	0
F. T.	30	0	0
St. Paul's, Upper Holloway	26	0	0
Mr. C. N. Steven	50	0	0
St. Anne's, Wandsworth	51	0	0
Mr. C. H. Hawkins	21	0	0
St. Luke's, Battersea	55	0	0
St. James's, Garlick-hill	28	0	0
St. Peter's, Ealing	22	0	0
East-hill, Wandsworth, Wesleyan	21	0	0
[illegible]	60	0	0
[illegible]	31	0	0
[illegible]	33	0	0
St. Matthew's, Westminster	20	0	0
St. Peter's, Clapham	23	0	0
Orange-street Congregational Church	37	0	0
St. John's, Redhill	46	0	0
St Mary's, Cuddington	25	0	0
Victoria Park Christian Evidence Association	71	0	0
St. Mary's, Boltons	72	0	0
St. Mary's, Hornsey-rise	23	0	0
Upper Holloway Baptist Church	21	0	0
St. Jude's, Upper Chelsea	29	0	0
Hornsey, Willoughby road Wesleyan Chapel	21	0	0
Highgate Presbyterian Church	37	0	0
St. John Baptist, Pinner	26	0	0
St. Mary's, Shortlands	43	0	0
Metropolitan Tabernacle	50	0	0
All Saints', Woodford Wells	22	0	0
St. Mary the Virgin, Putney	25	0	0
Belgrave Presbyterian Church	25	0	0
St. Augustine's, Highbury	74	0	0
St. Luke's, Deptford	63	0	0
West Wickham Churches	44	0	0
St. Michael's, Barnes	20	0	0
St. Luke's, West Norwood	38	0	0
Holly Park Wesleyan Church, Crouch Hill	26	0	0
Archway-road Wesleyan Church, Highgate	23	0	0
St. Clement's, Ilford	20	0	0
Brentwood Parish Church	20	0	0
Lemsford Parish Church	62	0	0
St. Andrew's, Watford	30	0	0
Beckenham Parish Church	63	0	0
Finchley Presbyterian Church	30	0	0
"B. C. M."	25	0	0
Trinity Presbyterian Church, Wimbledon	28	0	0
High Beech Parish Church	26	0	0
St. Stephen's, Westminster	22	0	0
All Saints', Norfolk-square	23	0	0
Keston Parish Church	22	0	0
St. Mary's, Plaistow, Bromley	50	0	0
Mitcham Parish Church (moiety)	29	0	0
St. Luke's Parish Church, Chelsea	50	0	0
Merton Parish Church	37	0	0
St. Paul's, Forest Hill	50	0	0
St. Saviour's, Paddington	53	0	0
St. Thomas's, Portman-square	72	0	0
Trinity Presbyterian Church, Notting-hill	34	0	0
St. John the Evangelist, Putney	50	0	0
St. James the Less, Westminster	29	0	0
Bromley, Kent, Parish Church	50	0	0
St. Andrew's, Leytonstone	64	0	0
Christ Church, Newgate-street	44	0	0
Eaton Chapel, Eaton-square	25	0	0

THE SERVICES.

Royal Navy Medical Service.

Fleet Surgeon Thomas Desmond Gimlette has been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets in His Majesty's Fleet.

Surgeon P. T. Sutcliffe is appointed to the *Niobe*.

Royal Army Medical Corps.

Albert Stanley Knight Prescott, Deputy Surgeon-General, retired list, has been selected for medical charge of troops at Gravesend. Captain O. T. Samman joins at Woolwich. Captain *O. B. Lawson* proceeds to Dover for duty. Lieutenant-Colonel Matthew D. O'Connell to be Colonel, vice C. F. Churchill, retired. Lieutenant-Colonel J. D. Day retires on retired pay.

India and the Indian Medical Service

The King has approved of the following promotions among the officers of the Indian Medical Service:—Majors to be Lieutenant-Colonels: *Bengal Establishment:* Frederic Daly Cæsar Hawkins, John Adams Cunningham, Alexander Silcock, Patrick Mullane, John William Rodgers, and James Farquharson Maclaren. *Madras Establishment:* Arthur Theophilus Lodge Patch, Charles Adams, Jamshedji Kharshedji Kanga, and Alfred James O'Hara. *Bombay Establishment:* Alexander Milne, Richard John Baker, William Alfred Corkery, and Sarkies Thaddeus Avetoom. Captains to be Majors: *Bengal Establishment:* Fairlie Russell Ozzard, Adam Rivers Steel Anderson, John Telfer Calvert, Edgar Jennings, and Arthur Gervase Hendley. *Bombay Establishment;* William Symonds Percival Ricketts, Charles Malcolm Moore, George William Jenney, and Charles Tilson Hudson.

The King has also approved of the retirement from the Service of the undermentioned officers: *Madras Establishment:* Lieutenant-Colonel Arthur Henry Leapingwell and Lieutenant-Colonel Francis Joseph Doyle. *Bombay Establishment:* Colonel Samuel O'Brien Banks, Lieutenant-Colonel Mathew Lorenz Bartholomeusz, and Lieutenant-Colonel Joseph Parker.

Militia Medical Staff Corps

Samuel Thomas Beggs to be Surgeon-Lieutenant.

Imperial Yeomanry.

Cheshire (Earl of Chester's): Surgeon-Captain G Harrison signs his commission, with permission to retain his rank id to wear the uniform of the regiment on retirement erbyshire: Surgeon-Captain C. H. Hough resigns his mmission and is granted the rank of Surgeon Major, ith permission to retain his rank and to wear the uniform the regiment on retirement.

Volunteer Corps.

Rifle: The Queen's Rifle Volunteer Brigade the Royal cots (Lothian Regiment): Brigade-Surgeon-Lieutenant-olonel C. W. MacGillivray resigns his commission, with perission to retain his rank and to wear the uniform of the orps on retirement, vacating at the same time the appointent of Senior Medical Officer to the Forth Volunteer fantry Brigade. 3rd (Dumfries) Volunteer Battalion the ing's Own Scottish Borderers. Surgeon-Captain J. aclachlan to be Surgeon-Major. 1st (Pembrokeshire) olunteer Battalion the Welsh Regiment: William Starbuck riffith to be Surgeon-Lieutenant. 1st Volunteer Battalion e Northamptonshire Regiment: Surgeon-Lieutenant J llison to be Surgeon-Captain. 3rd (Buchan) Volunteer attalion the Gordon Highlanders: Robert John Cheves to e Surgeon-Lieutenant.

Volunteer Medical Staff Corps.

The Woolwich Companies: John Hardie to be Surgeon-ieutenant

Volunteer Infantry Brigade.

Glasgow: Surgeon-Lieutenant-Colonel J. Macfie, 4th Volunteer Battalion the Cameronians (Scottish Rifles) to be Brigade-urgeon-Lieutenant-Colonel on appointment as Senior Medical fficer to the Brigade.

South African War Notes.

In the official list of casualties which occurred at Vilmansrust on June 12th among the list of killed appears he name of Surgeon-Lieutenant H. A. Palmer, 5th Victorian Mounted Infantry.

The following are reported to be slightly improved:—Civil Surgeon Wilbond and Civil Surgeon Graham (June 14th).

The following officer has been discharged from hospital to duty: Civil Surgeon C. Lindsay Dunn The following officers are on passage home: Major J. H. Greenway, R A M C, Major A. E Tate, R.A.M C, and Civil Surgeons L E. Owen, G. H. Bristow, R Lindsay, F. B. Stewart, R. Whittington, and W. R Griffin.

Mrs. Skey Muir, the honorary secretary of the Royal Army Medical Corps South Africa Fund, and Mrs. Charters Symonds, the honorary treasurer, have issued an appeal for contributions to enable them to send a final consignment of comforts to the men of the Royal Army Medical Corps in South Africa who still number over 4000. Contributions will be gladly received by Mrs Charters Symonds, 58, Portland-place, W.

Army Affairs in South Africa.

The war news from South Africa is of a somewhat mixed character. On the one hand there has been severe fighting with De Wet's force near Reitz followed by its defeat with the capture of a convoy of stores, ammunition, vehicles, and horses by General Elliot's column; and, on the other hand, the surprise of a detachment of Victorian Mounted Rifles detached from General Beatson's column, by the Boers near Middleburg in the Transvaal with the capture of two guns and severe loss to the Australians. Taken altogether the most recent war news is not of special importance, but the results are, on the whole, favourable to the British and show that the usual captures of prisoners, stock, and ammunition are still going on and that the opposition and strength of the Boer forces are being slowly but surely worn down. They carefully avoid all general engagements or fighting on any large scale. The list of casualties in the recent fighting is a heavy one considering the small size of the forces engaged and there is still the chronic drain going on from disease-causes. Some cases of bubonic plague have been recently reported from Port Elizabeth, Maitland, and Simonstown. The total number of cases hitherto reported from South Africa has been 714, of which 318 have terminated fatally. What most people regard as the most disquieting news does not come from South Africa or abroad, but has its origin in this country, and is of a political and manifestly party character. The movement to which we allude is one of limited extent and so far as it is of a purely political nature it does not concern us, but as a matter of common sense we cannot shut our eyes to the injurious effect it is likely to have at the present time. No one is likely to accuse us of being unmindful of the sufferings of those who are detained or sheltered in the various camps of refuge in South Africa. In common, we suppose, with everyone else, we deeply regret the hardships, sickness, and other evils that have been brought upon a number of innocent women and children, but surely Mr Kruger and those who sided with him and were instrumental in bringing about this war should have thought of all that beforehand and are responsible for it? To read much of what is being put forward at the present time it might be supposed that Mr Kruger and his allies had never made any preparations for this war; that they had not delivered an ultimatum couched in the most peremptory terms and immediately followed it up by invading the late Queen's territory; and that the late President of the Transvaal Republic, after having involved his unfortunate country in all this misery and distress, had not consulted his own personal safety and interests and fled, leaving his suffering and ruined people and his wife to take care of themselves. Rightly or wrongly there are a good many people in South Africa and at home who think that but for the humanity, merciful consideration, and leniency with which the Boers and their families have been treated in the past, the war would have been over long ago. The task of providing for all the women and children is one of enormous difficulty and candour compels us to say that it would be about as just to blame the Government of this country for the present exceptional weather as to blame them for an outbreak of measles [illegible] refugee camps or, under the circumstances, [illegible] children [illegible] the empire, who have been [illegible] the campaign, [illegible] g all the [illegible] including suffering and hardships of the campaign, [illegible] want of food, for nearly two years to find that the sympathies of some of their countrymen are, after all, apparently with the Boers This war in South Africa has, indeed, been unique in a good many respects; in addition to its having been throughout a fight with physical geography as well as with an astute and stubborn foe. It has been the graveyard not only of innumerable humane and brave soldiers but of many *military reputations and a source of keen* disappointment to the medical service. But things will and must right themselves in the end, justice will be done, and the right-thinking, who happily form the large but silent majority, will see that it is done when they have the opportunity *of declaring their opinion.*

Hæmostasis on Active Service.

In an original article bearing evidence of great research, which was published in the *Archives de Médecine et de Pharmacie Militaires* for March and the two following *months, Surgeon-Major Moingeard treats of hæmorrhage on* active service and the means for most effectually controlling it. It is the *writer's object "to demonstrate on the* one part the procedures which are the most simple, and on the other those which under the circumstances of a campaign could be employed with the greatest certainty." Some of the older authorities maintained that deaths from hæmorrhage on the field of battle were of infrequent occurrence, whereas others *said that three-fourths of the fatalities were* due to it. According to the Crimean statisticians primary hæmorrhage was responsible for 18 per cent. of the deaths *during an action, and Chenu* has placed the same proportion on record for the war of 1870. On the introduction of the modern rifle with its small hardened projectile the general belief was that hæmorrhage would attend on gunshot wounds with greater frequency than before, but in the opinion of Surgeon-Major Moingeard such has not proved to be the case. In the late Spanish-American war La Garde found that hæmorrhage was comparatively rare after *gunshot injuries. Secondary* hæmorrhage, according to Surgeon-Major Moingeard, is of two kinds. In the *first* variety the fibrino-globular plug which prevents the loss of blood becomes soft and disintegrated under the influence of suppuration, the degenerative process being *entirely due to septic causes. In* the second variety the plug becomes displaced while it is still healthy though friable, either in consequence of some derangement of the hæmostatic appliance *or else owing to injudicious movements* on the part of the patient or of his attendants. If gunshot wounds could only be kept aseptic from the first the latter *form of secondary* hæmorrhage would alone be met with. It is, however, very difficult to ensure the surgical cleanliness of gunshot wounds. First-aid is for the most part administered by stretcher-bearers whose hands are always *more or less soiled.* "Never," exclaims Surgeon-Major Moingeard, "shall we succeed in convincing these men of the capital importance of asepsis to an extent sufficient to induce them to wash their hands before touching open wounds." On active service it is, unfortunately, not always possible to apply surgical science in its perfection. Even at dressing stations, although the *personnel* be efficient and the *matériel sufficient, the* surgeon must content himself with "verifying the security of the provisional hæmostatic measures already adopted, making them, if possible, still more *secure. Only* very exceptionally shall he venture to apply ligatures in cases where he finds it is impossible to affix appliances. Needless to say he must not dream of arresting an internal hæmorrhage. He should at once apply an antiseptic and occlusive dressing without adventuring on any exploration whatever. We will say more—he should carefully refrain from all explorations of the wound." Not until the ambulance is reached can a wounded soldier hope to receive to its full extent the surgical aid which he would have in a civil hospital. The greater portion of Surgeon-Major Moingeard's paper is devoted to the mode of applying hæmostasis, according to the region of the body implicated. In the section on Wounds of the Neck the following interesting story is quoted *from* Larrey's *Clinique Chirurgicale*:—

> During the siege of Acre, while he was superintending a battery of artillery, M. Arrighy, who afterwards was Duke of Padua, received a bullet in his neck which severed the external carotid artery close to its separation from the internal and just before its entrance under the parotid gland. The fall of the wounded nobleman and the jets of blood spurting from both ends of the divided vessel attracted the attention of the gunners, *and one of* them, a highly intelligent man named Pélissier, had the presence of mind to promptly insert his fingers into these orifices, thus arresting the hæmorrhage. Having been immediately summoned I ran to the wounded personage's aid amidst balls and bullets. A compressive bandage, preceded by firm graduated compresses methodically applied, to my great astonishment, arrested the rapid march of death and saved this officer, who was cousin-german to the general-in-chief, Bonaparte.

Surgeon-Major Moingeard concludes his article with short chapters on Venous Hæmorrhage, Secondary Hæmorrhage, and General Treatment. In his summing-up he emphasises the need of *better instruction* for stretcher-bearers.

The Public Medical Services.

It seems to be forgotten by the War Minister and all concerned how much turns upon the question of supply and demand in the matter of obtaining eligible candidates for the medical services. Great changes have, speaking generally, taken place in regard to the medical profession of late years. The medical curriculum has been increased from four to five years, entailing increased expense, longer courses of study, and a diminished number of students at the medical *schools than was formerly the case.* The public medical services have not kept pace with this altered state of things, while the *amount of foreign service, of responsibility*, and of work have gone on increasing. But even apart from these things there are underlying social questions and considerations which tend to affect the popularity of the services, and medical officers are tired, after having undergone all the hardships of a campaign in which they are conscious of *having done their best, of being subjected to adverse criticism* on the part of so many irresponsible or incompetent judges. Shortly put, the foregoing may be taken as expressing a very general feeling.

The Boer Prisoners at Ahmednagar.

As our readers are aware there was a great outcry raised when it was known that a large batch of *Boer prisoners* were to be quartered at Ahmednagar. It was pointed out in vain that an Indian station which was considered good enough and healthy enough for the occupation of British soldiers might suffice for the Boers. Ahmednagar is really a healthy elevated station and a pleasant and popular place of residence, and we now learn that the Boer prisoners are well satisfied with it and "full of gratitude at the kindness and consideration with which they have been received." They are housed in roomy, airy huts, enjoy a good deal of liberty, and are supplied with good rations and suitable clothing, and are, in short, very well off. The water-supply is, it is believed, of excellent quality.

Army Medical School, Netley.

The eighty-second session of the Army Medical School will be brought to a termination on Saturday, June 29th, when the prizes will be distributed by the Right Hon. the Earl of Northbrook, G.C.S.I.

On Wednesday, *June 19th, Colonel W. J. Charlton* and the officers of the Royal Army Medical Corps quartered at Netley entertained Surgeon-General J. Jameson, C.B., the retiring Director-General of the Army Medical Service, at a farewell dinner.

Surgeon-General A. F. Preston, A.M.S., has been selected for a distinguished service pension of £100 per annum.

Correspondence.

"Audi alteram partem."

"SURGICAL OR MEDICAL TREATMENT IN GASTRIC ULCER?"

To the Editors of The Lancet.

Sirs,—Dr. L. Wheeler's letter in The Lancet of June 15th is a valuable contribution to gastric surgery, but he gathers from my paper in The Lancet of June 8th that I recommend "that, broadly *speaking,* all *cases of gastric ulcer should be* operated on as soon as the diagnosis is assured." I am afraid the length of my paper has so wearied the attention of the reader as to lead to its not being understood. I am certainly not in favour of operating on all cases of gastric ulcer, and I am as certainly not in favour of waiting till the *diagnosis* is assured before operating. Nothing is more fatal to success in abdominal surgery than waiting till the diagnosis is assured. And, paradoxical as it may seem, no surgeons perform so large a proportion of futile exploratory laparotomies as those who work with physicians who wait until the diagnosis is "assured" (and too often assured wrongly). *The right and simple rule is that every other reasonable, available, and safe means of diagnosis, which does not involve delay, should be exhausted before an operation is decided* *upon.* If such a study of the case leaves one in absolute perplexity, that very condition of doubt may be the strongest reason for operating.

With regard to the case which Dr. Wheeler reports himself, mprovement appears to have begun immediately after he pened and washed out the stomach with boric solution, nd not before, in spite of morphia and rectal feeding. It vould be interesting to have the history of this case after eaving hospital. It is of the kind which often comes to either gastro-enterostomy or pyloroplasty or Loreta's operation fter all. With regard to the patient whom Dr. Wheeler *did ot* operate on, a case of gastric ulcer which was treated on imilar lines was discharged seven weeks ago from the West London Hospital apparently quite well. She returned in hree days. Thanks to the acumen and decision of Dr. Otto Grünbaum, then house physician, I was asked to perform aparotomy, although the diagnosis was far from assured (at east, according to ordinary rules)—e g., there was absolutely o abdominal tenderness. But perforation of a gastric ulcer ad taken place. As there were pus and lymph in the pelvis s well as over the stomach and the perforation was 24 hours ld the patient had a narrow escape.

Apropos of my inquiry as to the present condition of Dr. Wheeler's Case 1, I may mention that seven years ago man nearly died from gastric hæmorrhage at Brighton. fterwards his stomach dilated and his pyloric obstruction ot worse so gradually that for years until the very day efore his death (the 23rd ult.) he went to no medical man. n attack of tetany occurred and Dr. Gilbert Richardson as then called in. He promptly saw that nothing but urgery could save the patient, even if it were not too late or that. The tetany was relieved, but death occurred from xhaustion ten minutes before the surgeon's arrival.

I am, Sirs, yours faithfully,

Grosvenor-street, W., June 15th, 1901. C. B. KEETLEY.

"PRELIMINARY MEDICAL EDUCATION."

To the Editors of THE LANCET.

SIRS,—Dr. Lombe Atthill, in the explanation he has hought fit to offer in your columns of his reasons for voting gainst the resolution which I proposed at the General Medical Council, says that he voted against the resolution ecause it withdrew from the Council the main questions nvolved by the recent action of the London Colleges—viz., heir ignoring the resolutions of the Council requiring five ears' study at a recognised medical school and their onsequently ceasing to require a certificate of registration from the candidates for their licence, and he states urther that I announced that the vote on my resolution ould be final, so that not alone was no expression f opinion possible on these points but no alternative ourse other than complete submission by the Council to the ecision of the Colleges was possible under the resolution. s regards this last allegation Dr. Atthill is entirely in rror on a question of fact, of course unintentionally. If he ill refer to your report of the discussion he will find the ollowing: "The President asked Dr. McVail whether he ntended, if his motion were carried, to represent the matter o the Privy Council. Dr. McVail replied that if the motion ere carried, as he hoped it would be, he would be perfectly ontent to leave the matter there until next session. The Royal Colleges and the other bodies would then have an pportunity of understanding the position of the Council in he matter."

I also said that my motion would not tie the hands of any ther member of Council who might choose to propose any ther resolution on the subject. It was, therefore, entirely pen to Dr. Atthill or to any other member of the Council o have moved an amendment to my resolution or, had the esolution been carried, to have followed it by another irecting whatever action the proposer might have thought o be desirable. It is, therefore, not the case that my esolution was in any sense final or withdrew any aspect of he question from the consideration of the Council. The esolution was as follows:—

> [illegible] hysicians of [illegible] n so far as [illegible] subjects of [illegible] that these [illegible]

This directly relates to the first of the main questions lluded to by Dr. Atthill—viz., the resolution of the Council equiring five years' study at a recognised medical school, and yet he gives as his reason for voting against the resolution that it did not relate to the five years of curriculum. My resolution distinctly included the question of the substitution by the Royal Colleges of secondary and other schools as places in which the first year of professional study might be taken instead of at a recognised medical school as desired by the Medical Council. But as Dr. Atthill is of opinion "that when possible physics and chemistry should be taught as subjects of preliminary education" it would have been impossible for him to have done otherwise than vote against my resolution, but it is difficult to understand that his reason for doing so was because I did not propose stronger action against the Colleges for conduct of which in this particular he strongly approves.

The terms of my resolution were carefully framed so as to vindicate the position of the Council as to the courses of study for the first professional examination and yet to leave it open to the Council to postpone ulterior action for six months to enable the English Colleges to reconsider their action. I did not include in the motion any reference to registration in the Students' Register, as under the Medical Acts the Council cannot enforce such registration. The institution of the Students' Register was essentially a voluntary arrangement on the part of the universities and incorporations. It was extremely convenient and saved much trouble both to the students and to the officials of the licensing bodies, but any one of these bodies might ignore the Register should it so decide. My resolution dealt with the sufficiency of the courses of study, and the supervision of medical education is the primary function of the Medical Council. The Council is the General Council of Medical Education and Registration. Clause 20 of the Medical Act of 1858 is as follows:—

> In case it appears to the General Council that the course of study and examination to be gone through in order to obtain any such qualification from any such College or body are not such as to secure *the possession by persons obtaining* such qualification of the requisite knowledge and skill for the efficient practice of their profession, it shall be lawful for such General Council to represent the same to His Majesty's most Honourable Privy Council.

The very circumstance that *study* is in this clause undefined, imposes on the Council the duty of informing *itself regarding every particular of the medical curriculum of* every one of the licensing bodies as to the nature and extent of the curriculum which each of them should as a minimum require from candidates for its degree or diploma. The Council is left entire liberty as to the manner in which it will arrive at and express its opinion as to the courses of study which should be required. Just as in the matter of infamous conduct in a professional respect there is no definition in the acts and as courts of law have held that the decisions of the Council as to what constitutes infamous conduct are final and not to be reviewed by any judicial body in the kingdom, so does the twentieth clause in the Act give an equal power in the matter of the medical curriculum, and all powers and privileges possessed by any licensing body in virtue of charters or *deeds* of incorporation are subject to the twentieth clause of the Medical Act. It is the imperative duty of the Council to lay down its minimum of the course of study in any subject that it may deem requisite, and if the opinion of the Council be persistently ignored by any medical authority the Council must then perform its final duty of reporting to the Privy Council. This step the Council can never be eager to take, and no member of the Council is less desirous than I am to adopt such a course, and therefore it was that my motion was so framed as to leave the door still open to the Royal Colleges to conform to the Council's opinions. The Medical Council, however, having by a small majority refused the *motion I proposed*, and having then proceeded to other business, has left the English Royal Colleges free to continue in their present course of conduct, and the first year of the medical curriculum can continue to be taken by candidates for their diplomas at any one of a large number of ordinary schools, and that in courses which as to their length are altogether undefined, and this year at school is to be the first of the five years of their medical curriculum. No doubt other licensing bodies may be tempted to act likewise and, further, may regard themselves as being quite safe from any action on the part of the Council in making other departures in subsequent parts of the curriculum from what the Medical Council has declared to be necessary. Chaos indeed may result, and the work of 40 years be wholly undone. But I hope that at a very early date the Medical

Council may take steps to define rigidly and unmistakeably its position as to medical study under the unlimited duty and power which devolve on it under the twentieth clause of the Act of 1858.—I am, Sirs, yours faithfully,

Glasgow, June 19th, 1901. D. C. MCVAIL.

"THE SWALLOWING OF FOREIGN BODIES."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of June 15th I notice a short article on "The Swallowing of Foreign Bodies" which concludes with the moral that "when a patient swallows his false teeth he knows it and does not infer it from symptoms." The following case will show that even this moral is not always a safe one to act upon. A woman of powerful physique and not hysterical sent for me one afternoon because she had just swallowed her false teeth. It was an incomplete gold set that had been given her many years back, when she was in domestic service, by her mistress, and in consequence of her having lost several teeth since the plate was made it fitted very loosely in her mouth. She told me that she was eating some cabbage soup and that she felt an unusually large piece of cabbage catch in one of the sharp angles of the plate and that the cabbage and the teeth slipped down her throat at the same time. On examining her abdomen and pressing firmly over the lower border of the stomach she complained of a sharp cutting pain which she, of course, concluded was the gold plate. I suggested making a thorough search over the house before attempting an operation, but the woman was indignant that I could suppose her capable of making such a mistake, and declared that she had positively "felt the teeth going down." I therefore promised to call the next morning and to do what was necessary for the recovery of her lost property. In the meantime, however, she had found her teeth among some potato parings and so no surgical interference was needed. I concluded that the teeth had actually slipped out of her mouth during the day without her noticing it and that she must have swallowed a bone with the soup, which passed through her intestines without giving rise to any symptoms. I have always been very suspicious of "false teeth" episodes, but particularly so ever since I saw a gastrotomy done for a set that was afterwards found in the patient's trousers pocket.

I am, Sirs, yours faithfully,
ERNEST O. B. VOISIN, M.R.C.S. Eng.
St. Heliers, Jersey, June 15th, 1901.

"LEGISLATION AGAINST NATIONAL INTEMPERANCE."

To the Editors of THE LANCET.

SIRS,—Dr. Andrew Wilson states of me that "in one case he appears a Weismannian out-and-out; in another he figures as an opponent of the view that it is the germ plasm alone that can transmit features from one generation to another." Dr. Wilson is mistaken in both instances. I have never been a supporter of Weismann and I have always maintained the obvious truth that it is the germ plasm alone that can transmit features from one generation to another—obvious since from the germ alone spring future individuals. As Dr. Wilson thinks it interesting perhaps I had better explain. Years ago Mr. Galton propounded the view that acquired characters are *not* transmissible. The higher plants and animals are compounded of cells, each one of which in a very real sense is a separate living entity. All the cells are differentiated for the performance of different functions, reproduction being reserved for the germ cells. Now there is no more reason for supposing that muscle or liver or any other of the somatic cells are concerned in reproduction than for supposing that germ cells are concerned in the production of motion or of bile. In other words, there is no reason for supposing that each one, or indeed any one, of all the millions of traits acquired by every man (for example) so impresses the germ cells that the *particular* trait the parent acquired is reproduced by the child. *A priori* the thing appears incredible. *A posteriori* the plant and animal kingdoms have been ransacked and no single instance of the transmission of an acquirement has ever been proved. We are entitled, therefore, to believe that acquired characters are not transmitted. Weismann supposes that some of the germ plasm of the parent is separated off and handed on practically unchanged to the offspring. He adds amazing complications in the shape of ids, idants, biophors, and so forth, the bearers of heredity. If his hypothesis be true it must follow as a corollary—*but as a mere corollary*—that acquired traits are not transmissible. But a theory that only inborn characters are transmissible is one thing: a theory as to *how* inborn characters (to the exclusion of acquired characters) are transmitted is quite another thing. The former (Mr. Galton's) theory rests on the solid ground of well-ascertained fact—on the cell theory. The other (Weismann's theory) is absolutely unsupported by evidence. It may or may not be true. There is not a shred of evidence one way or the other. No one has seen, or at least no one can recognise, the germ plasm, much less an id or an idant. Medical men commonly assume that the neo-Darwinian (Mr. Galton's) theory stands or falls by Weismann's metaphysical speculations. It would be as reasonable to decline to admit the fact of a man's death unless it were first proved that he died in a certain specified way.

While it is unbelievable that the characters acquired by alcoholic parents are transmissible to offspring, the assumption that parental ill-health due to alcoholism, or to alcohol circulating in the parent's blood and acting directly on the germs, may injure the latter and through them the offspring is a much less incredible assumption. But here, again, the evidence points to an opposite conclusion. Germinal changes are known to be transmissible to remote descendants. Did alcoholism injure the germs, a race that used it would, by the accumulation of injury during generations, tend towards extinction. I am not aware that the South Europeans, for instance, who have used alcohol for thousands of years, are approaching extinction or even that they are more degenerate than Terra del Fuegians who, Dr. Sharp notwithstanding, have never used alcohol. I know only that they have become extremely temperate, apparently through the elimination of the more drunken.

"M.D., B.S." complains that "the discussion of this question seems to have degenerated into a vain and unprofitable attempt to get at the meaning of Dr. Archdall Reid's theories." I daresay he is right, but the fault is not mine. I have endeavoured to avoid the mention of my theories. They did not seem to me relevant to the point at issue—the point as to whether temperance legislation is productive of *immediate* good or harm. I challenged opponents to mention a single instance when, under the *ordinary* conditions of civilised life, repressive legislation had not been productive of increased drunkenness as well as of many attendant evils—a very definite challenge to which there has been no reply. However, if "M.D., B.S." desires to have any definite point cleared up he has only to state it and I will do my best. Meanwhile, it is a pity that he did not verify his references. I suppose with care it would be possible to misrepresent the report of the Research Committee of the Society for the Study and Cure of Inebriety more completely than he has done, but it would be very difficult. He had no justification in the summary published in THE LANCET.

I have only one remark to add, to which, however, I wish to give all the emphasis possible. When the question of temperance reform is raised in such an organ as THE LANCET the interest it excites is not limited to a few medical men. The present controversy has been watched by the officials of every important temperance organisation in the kingdom. It is their business to keep themselves informed of the effects of temperance legislation all the world over, and presumably they are eager in the cause of "reform." The readers of THE LANCET will appreciate at its proper value the fact that though temperance reform has been tried on an enormous scale, these gentlemen have not attempted to controvert my very grave assertion that it has invariably been productive of increased debauchery when tried under conditions less than half as onerous as those which prevail in England at the present day.—I am, Sirs, yours faithfully,

Southsea, June 11th, 1901. G. ARCHDALL REID.

A CASE OF HERMAPHRODITISM.

To the Editors of THE LANCET.

SIRS,—I was asked to prescribe for a girl, aged 20 years, who had never menstruated. As, however, I did not care to do this without previous examination I obtained the necessary consent. I then found that the vagina ended in a cul-de-sac, and in making this examination the knuckle of my index finger came against a swelling in one labium. I then exposed and found two fully-developed testes, one in each labium majus, and each in a sac of its own. They were freebly moveable and there was testicular sensation. The clitoris was an inch long. The genital hair did not extend on to the abdomen but was limited to the pubes. The mammæ were small and poorly developed, although larger than in the male. The patient was tall and slight, with a coarse voice, and suffered now and again from hysteria and "ovarian tenderness," for which she had been blistered. There was sexual orgasm. It may be also mentioned that her brother has a hare-lip.

I am, Sirs, yours faithfully,
J. THOMSON SHIRLAW, M.B. Edin.
Upholland, near Wigan, June 13th, 1901.

"LOCAL v. GENERAL ANÆSTHESIA IN CERTAIN CASES OF ABDOMINAL SURGERY."

To the Editors of THE LANCET.

SIRS,—It would almost appear that the skilled anæsthetist can only look at anything involving the administration of anæsthetics from his own high level. In my letter on the above subject published in THE LANCET of June 8th I endeavoured, amongst other things, to point out that the administration of a general anæsthetic in a critical case, whilst, perhaps, fairly safe in the hands of a very competent anæsthetist, became a source of shock and danger in the hands of an unskilled administrator thereof. Will Dr. J. Blumfeld deny this? In operations of urgency in the country we can seldom obtain the services of a skilled anæsthetist, and Mr. T. H. Morse was, I consider, when speaking of his own extensive experience in such cases, justified in asserting that "shock varies in proportion to the skill of the administrator and is often dependent upon the duration of the operation and hence upon the amount of the anæsthetic which is inhaled."

I am, Sirs, yours faithfully,
Norwich, June 16th, 1901. S. JOHNSON TAYLOR

THE BALLYMAGRAN SCANDAL AND THE IRISH LOCAL GOVERNMENT BOARD.

To the Editors of THE LANCET.

SIRS,—For the information and satisfaction of my friends who are readers of THE LANCET permit me to acquaint them that the Local Government Board have at my request held their sworn inquiry into the circumstances of the sad death of Mrs. Jones, and their decision is "that he [the medical officer] was not guilty of any neglect of duty in connexion with this case."

I am, Sirs, yours faithfully,
R. D. PATTERSON,
Medical Officer, Caledon and Ballymagran Dispensary District
Caledon, June 18th, 1901.

CORPORATION MEDICAL APPOINTMENTS IN SOUTH AFRICA.

To the Editors of THE LANCET.

SIRS,—At the desire of the Honourable the Colonial Secretary, Cape Town, I inclose copy of a letter dated 11, Selborne-road, Denmark-hill, S.E., 23rd April, 1901, addressed to a medical gentleman residing in Cardiff, and signed by "Fred. E. Willson," regarding vacancies for corporation medical officers in South Africa. I am to state that the Cape Government knows nothing whatever of Mr. Fred. E. Willson or of the appointments to which he refers, and I would feel obliged if you would be good enough to publish this letter and its inclosure in order to warn medical men against putting any faith in Mr. Willson's representations.

I am, Sirs, yours faithfully,
D. TENNANT, Agent-General.
100, Victoria-street, London, S.W.,
June 11th, 1901

[COPY]

11, Selb[illegible]

DEAR SIR,—Your fav [illegible]
the appointments are [illegible]
salary of £2 per day [illegible]
20 men are wanted *immediately*. There is a grand opportunity for fully-qualified men under 40, genera' [illegible]
ability, sound common sense, and no [illegible]
for outfit, passage money, and initial [illegible]
No need to purchase a practice. I [illegible]
information and advise at personal I [illegible]
above qualifications By appointm[illegible]
venience April 25th, 26th, and 27th, May 1st and 2nd.

Yours, &c.,
(Sgd.) FRED. E. WILLSON.

"DENTISTRY AND THE SERVICES."

To the Editors of THE LANCET.

SIRS,—I am glad to see that the scheme for the appointment of army dental surgeons which was recently published in THE LANCET as the result of my experiences in the Imperial Yeomanry Hospital at Deelfontein, South Africa, has so far borne fruit that four dental surgeons have been appointed and have sailed for the Cape. On their arrival the question will arise as to how their services can best be employed. Four dental surgeons are of no appreciable use to meet the requirements of the army, and as they are not to be supplied with workroom appliances they will not be able to deal with the worst cases that have to be invalided home for lack of artificial teeth. I think the best way would be to send all four of them to any one of the military hospitals, where the record of their work would indicate the necessity of sending 40 more to follow them as quickly as possible. The soldiers' teeth have been neglected, and on an average there is a day's work for a dental surgeon in the mouth of every one of them. This statement is confirmed by statistics derived from other sources. The appointment of four dental surgeons to each of the general hospitals would go far towards meeting the urgent needs of the army in South Africa, and the authorities could obtain a good deal of help from the practitioners in large towns to deal with cases which would otherwise have to be invalided home for artificial teeth. In Cape Town and Kimberley I found dental friends and practitioners who, I am sure, would do their best to meet the authorities in supplying dentures for special cases. I need scarcely refer to the proposal of Mr. Morton Smale, who thinks that the Royal Army Medical Corps should undertake the treatment of the soldier's teeth. A large number of additional army surgeons would be necessary, and it is not clear that they would prove better dentists or less expensive than ordinary dental surgeons.

I am, Sirs, yours faithfully,
June 17th, 1901. F NEWLAND PEDLEY.

THE ROYAL INSTITUTE OF PUBLIC HEALTH.

To the Editors of THE LANCET.

SIRS,—It is arranged to hold a dinner on Wednesday, July 24th, in the Whitehall Rooms of the Hôtel Métropole at 7 P.M., at which the Harben Medal will be presented to Professor Koch in recognition of his great scientific services. A large number of influential guests have already accepted invitations to be present, including Lord Lister, Lord Strathcona, Professor Brouardel, &c. The council will be glad to welcome anyone desirous of being present. Tickets for the dinner are one guinea (inclusive of wine) to be obtained from myself, an early application for which is desired.—I am, Sirs, yours faithfully,

W. A. BOND, M.D. Cantab.,
Honorary Secretary.
19, Bloomsbury square, W.C., June 18th, 1901.

LIME-WATER FOR OUR STREETS.

To the Editors of THE LANCET.

SIRS,—During the last few years I have on several occasions advised the employment of freshly-made lime-water for watering our streets with in hot weather. The reasons which in the first instance led me to make the suggestion were the following: (1) the observation that animal excreta set mortar into a hard substance like egg-shell; (2) that lime tends to petrify and preserve wood under favourable conditions, as is seen in old half-timbered houses; (3) that it binds together bits of dry dung and so prevents them flying about in the wind; (4) that its slight solubility enables it to act gradually and for a lengthened period, as all perfect antiseptics should act; and (5) that it renders the surface of wood less greasy and slippery.

During a recent visit to Vienna I have had the good fortune to see lime employed in the simplest possible manner for the disinfection of sewage at a new institution for the open-air treatment of phthisis. This institution, which is situated in an ideal spot in the hills of the Wiener Wald, is in every way excellent and up-to-date, and no pains seem to have been spared with regard to sanitary arrangements. Though I have always been a believer in the value of lime as a disinfectant I must confess to a little surprise when I discovered how simply and effectively it could be applied to the treatment of sewage. A day's sewage is collected in one of three tanks and with it is mixed "fresh milk of lime" in the proportion of 1 to 2 per cent. The whole is then allowed to settle for 48 hours. The clear fluid is drained off and the sediment is used for manure and is said to be of great value. I was assured that the purifying action of the lime was so complete that the treated fluid when allowed to escape from the tank was purer than the water of neighbouring mountain streams. I need not remind surgeons that fresh lime, if strong and in quantity, is a powerful caustic, but in weak solution it forms a soothing antiseptic dressing for the most sensitive conditions of the skin, such as scalds, burns or weeping eczema. Our streets have not been very offensive during the recent spell of hot weather because they have been constantly dry. If now in their cracked condition they become wet every crevice will be converted into an offensive little cesspool, unless the streets are watered with a suitable antiseptic. After what I have stated I do not think it is too much to ask that the proper authorities should give lime a fair—by that I mean a scientifically conducted—trial.

I am, Sirs, yours faithfully,
ALFRED EDDOWES, M.D. Edin.

Wimpole street, W., June 17th, 1901.

ACTIONS FOR NEGLIGENCE.

(FROM A LEGAL CORRESPONDENT.)

ALTHOUGH actions for negligence against members of the medical profession are of comparatively rare occurrence, their importance is such that a short outline of the law upon the subject may be found useful. No statute throws any light upon the question. The Medical Acts make no reference to the liability of members of the profession for malpractice, and the attitude of courts of justice can only be discovered from a consideration of the cases which have arisen from time to time.

The question, "What is negligent conduct on the part of a physician or surgeon?" is one of fact rather than law, just as the duty of the medical man towards his patient should be defined rather by reference to rules of etiquette and the working of his own conscience than by a strict legal formulary. It is the lot of the practitioner to be at the beck and call of his patients at all hours of the 24; it is his lot to have to continue in attendance upon a case when the chance of remuneration is small and where that remuneration, even if paid to the full, must constitute but a poor return for the fatigue of long journeys and the anxiety of many weary hours. In such circumstances it is satisfactory to know that slight carelessness or neglect will not necessarily be visited with a fixed punishment, but that all the facts will be considered before liability is attached to the unfortunate practitioner.

An attempt is sometimes made to draw a hard-and-fast distinction between qualified and unqualified practitioners when liability for negligence is under discussion. As a matter of fact no clear distinction can be drawn, the question being entirely one of degree. Nevertheless, the ignorance of a man who undertakes to perform a difficult operation is a matter which may have an important bearing upon his liability for negligence, and in so far as the quack is more ignorant than the registered medical practitioner he may be said to be under a greater degree of liability. A review of the cases in which damages have been recovered for negligent surgical or medical treatment generally discloses the fact that the heaviest penalties have been awarded against defendants who were unqualified. In Ruddock *v.* Lowe (4 F. & F. 519) the defendant, who kept an anatomical museum in the Strand, was unqualified, but he kept a qualified assistant as the ostensible practitioner and professed himself a master in the art of healing certain disorders "which he never undertook unless he could guarantee a perfect cure." The plaintiff who was suffering from such a disorder desired the advice of the defendant, who saw him frequently, treated him ignorantly and improperly, and administered an improper medicine, by which he was rendered worse instead of better. The jury found a verdict for the plaintiff, damages £200.

The question whether the practitioner has been guilty of negligence is one of common sense and of fact for a jury to decide upon. Chief Justice Tindal thus summed up to the jury in the case of Lamphier *v.* Phipos (8 C. & P. 475): "Every person who enters into a learned profession undertakes to bring to the exercise of it a reasonable degree of care and skill. He does not undertake, if he is a surgeon, that he will perform a cure, nor does he undertake to use the highest possible degree of skill. There may be persons who have higher education and greater advantages than he has, but he undertakes to bring a fair, reasonable, and competent degree of skill, and the question is whether the injury must be referred to the want of a proper degree of skill and care in the defendant or not." It was also pointed out by Chief Justice Erle in Rich *v.* Pierpont (3 F. & F. 35) that "it is not enough to make the defendant liable that some medical men of far greater experience or ability might have used a greater degree of skill, nor that even he might possibly have used some greater degree of care."

In America the correct rule has been said to be that a physician and surgeon when employed in his professional capacity is required to exercise that degree of knowledge, skill, and care which physicians and surgeons practising in similar localities ordinarily possess (see Dunbauld *v.* Thomas, Am. Law Dig., 1900, p. 3656).

As has been said, the question of what is negligence is one which depends on the facts of each particular case. The following American cases are useful instances. Thus in Edwards *v.* Lamb (Am. Law Dig., 1900, p. 3656), where the plaintiff under the direction of the defendant assisted in dressing a wound of her husband and became infected with poison by reason of slight scratches on her fingers, the defendant, who knew of the danger, was found to be guilty of negligence in assuring her there was none, since he was not justified in assuming that her hands were free from such wounds. In another extraordinary case it was decided that a physician is under no obligation while a person is his patient to tell her or her husband that a fragment of a needle broken in a surgical operation was left in her body, but it is his duty to tell her so when discharging her as his patient from his care (Eislein *v.* Palmer, Am. Law Dig., 1899, p. 1870).

The question, "To whom is the practitioner liable?" is often one of considerable importance as he is frequently employed by the relatives of his patient, while the injury attributable to negligent treatment is sustained by the patient alone. It has often been decided that although the practitioner may have been employed by the next friend of his patient yet the patient can bring an action and recover damages for negligence. Thus in Gladwell *v.* Steggall (5 B. N. C. 733) the plaintiff by her next friend sued the defendant, "who was a clergyman and who practised also as a medical man," for damages for a misfeasance. It was held that the fact of the plaintiff submitting to the defendant's treatment was sufficient proof of an allegation of employment of the defendant by her.

This leads to the consideration of the question whether surgeons and others who hold staff appointments and who give their services gratuitously to the patients in hospitals can be sued for negligence. The writer is not aware of any action having been successfully brought against a hospital surgeon for negligence, the distinctive feature of his position being that what he does he does gratuitously. The few cases which are upon record, although they come very near to the point, fall short of actually deciding it. The consequences of holding surgeons irresponsible in such cases were thus pointed out by Baron Garrow in the case of Pippin *v.* Sheppard (11 Price, 400): "In the practice of surgery the public are exposed to great risks, from the number of ignorant persons professing a knowledge of the art, without the least pretensions to the most necessary qualifications, and they often inflict very serious injury on those who are so unfortunate as to fall into their hands. In cases of the most brutal inattention and neglect the patients would be precluded, frequently, from seeking damages by course of law, if it were necessary to enable them to recover that there should have been a previous retainer on their part of the person professing to be able to cure them. In all cases of surgeons retained by any of the public establishments it would happen that the patient would be without redress, for it could hardly be expected that the governors of an infirmary should bring an action against the surgeon employed by them to attend the child of poor parents who may have suffered from his negligence and inattention."

While the liability of a hospital surgeon for his personal acts has been left unsettled, it has been decided that a hospital surgeon is not liable for the acts or defaults of nurses in the hospital to whom the more minute care of the patients is entrusted. Thus in the case of Perionowsky *v.* Freeman (4 F. & F. 977) the plaintiff, who had been a patient at a London hospital, sued two of the surgeons for maltreatment there by causing him to be placed in a bath so hot that he was scalded and injured. It was proved that the bath had been ordered by the defendants but that it had been actually administered by the nurses. Chief Justice Cockburn, in leaving the case to the jury, said. "The defendants cannot be held liable for the negligence of the nurses unless they were near enough to be aware of it and to prevent it. No doubt persons who go as patients into hospitals are not to be treated with negligence, but, on the other hand, medical gentlemen who give their services gratuitously are not to be made liable for negligence for which they are not personally responsible." A verdict was returned for the defendants. So much is generally left to the nurses and attendants at a hospital that the above case will serve to relieve the staff of much responsibility.

Passing on to consider a few cases of more recent date it is interesting to notice that save in cases of exceptional hardship juries seem to be inclined to decide actions for professional negligence in favour of the practitioner. In a case which occurred in March, 1899,[1] the plaintiff sought to recover damages from the defendant in respect of alleged negligence in his professional treatment of her. It appeared that he had opened an abscess and inserted a drainage-tube. This tube was afterwards missed, but it was supposed that the patient had lost it when she removed the bandages. The wound eventually healed, but ultimately a second operation was performed by another practitioner, and a piece of indiarubber tubing was removed from the arm. The defendant denied that he had been guilty of any negligence. Corroborative evidence was given by two other practitioners who said that it would not have been justifiable to slit up the sinus in order to search for the tube. The jury found a verdict for the defendant whose case had been conducted by the Medical Defence Union.

Where the damages arise through some mistake against which no practitioner can at all times be on his guard it is in the highest degree important that the defendant should be absolved from responsibility. In Russell *v.* Crec[2] the plaintiff, a clerk, sought to recover the sum of £24 damages in the Clerkenwell County-court for the alleged negligence of the defendant, a medical practitioner, in certifying that "he was suffering from scarlet fever and was therefore unable to follow his profession." It turned out that he was in reality suffering from "erythema." It was shown that the case was extremely doubtful and that the spots visible were very deceptive. Judge Meadows White said that he could not see where the negligence came in and the action was dismissed.

The question must sometimes occur to the practitioner whether he is in duty bound to go on with a case after he has seen the patient once. Continued attention may in some cases prove very irksome, especially if the patient lives at a distance and is not a regular patient. The following Scotch case[3] serves to show that while a medical man is not bound to continue attendance in an emergency case a jury may sometimes be persuaded to give damages. It appeared that the defender as the nearest medical man had been called in to attend a labourer who had sustained a fracture of the tibia of his right leg just above the ankle. Upon examination the defender found that the man was not in a fit state to have the leg set and for several reasons he advised that he would be better at the Edinburgh Infirmary, six miles off. Having done up the pursuer's leg so as to guard it against the dangers of removal he sent him to hospital, intimating at the same time that he would have nothing more to do with the case. He was not the regular attendant of the pursuer nor was he the surgeon for the mill at which the pursuer had been working. Further, the defender never entered the pursuer's name in his books nor did he ask any fee for what he had done. After seeing the pursuer the defender was himself laid up with influenza for a month, when he again saw the pursuer, who had never been moved to the hospital. By that time the mischief had been done, and as the result of an operation which was then found necessary one leg was shorter than the other. Lord Adam, who charged the jury in an action brought against the defender for negligence, said that the case turned altogether on the question whether the defender undertook in November to give his continuous professional attendance to the pursuer. He also remarked: "Because a doctor attends a man in an emergency it does not follow that he is bound to go on with the case. Unless it is proved that besides doing what he did he also undertook to treat the pursuer as his patient the obligation ceased." In spite of this very explicit direction the jury returned a verdict for the pursuer with £50 damages. Although the jury decided in favour of the plaintiff the direction of the learned judge in the above case represents an accurate statement of the law, and it corresponds with the attitude taken up by American lawyers. In Keller *v.* Lewis (65 Ark. 578) a physician gave his services gratuitously to a patient who knew he was going away. It was held that he was responsible only for such treatment as he had administered personally and that he could not be held liable for any negligence or want of skill on the part of a physician who was subsequently called in.

Apart from the risk of having an action lodged against him for negligence the practitioner may also find his alleged negligence set up in answer to a claim for fees. It was long ago decided that if the defendant in such an action receives no benefit, *in consequence of the plaintiff's want of skill,* the latter cannot recover (Kannen *v.* McMullen, Peake, 59); but the remuneration of a practitioner who has used due skill and diligence does not depend on his effecting a cure. In the case of a surgeon, if an operation which might have been useful has failed in the event he is nevertheless entitled to charge; but if it could have been useful in no event he has no claim (per Alderson, J., in Hill *v.* Featherstonhaugh, 7 Bing. 574).

From a report of the case of Matcham *v.* Lacey,[4] it appears that at least one member of the county court bench takes the view that when a medical man undertakes a case he must go through with it to a finish, although the parents or other persons who have immediate control of the patient persistently refuse to take the medical man's advice. In the case under notice the plaintiff retired from a case on this ground and sued for his fees up to date. The learned judge found in favour of the defendants, remarking that a medical man is bound to continue in attendance upon a case which he takes up and that if he leaves it at an early date he must forego his entire fee. It is very doubtful whether this is a correct statement of the law. If the medical attendant gives sufficient notice to his patient and entrusts the case to a brother practitioner in whom he has confidence it would be hard indeed to find him guilty of negligence and so to deprive him of any reward, especially when his motive for leaving the bedside was his clear perception that those in charge persistently refused to take his advice or, although able to afford the fees, the patient's friends were determined not to pay. A solicitor will often refuse to proceed without a payment on account. A medical practitioner, although his doing so would not be consistent with the highest professional etiquette, should be allowed to take the same course in emergency.

---

[1] Brit. Med. Jour., March 18th, 1899.
[2] Ibid., March 17th, 1894, p. 608.
[3] Ibid., April 7th, 1894, p. 755.
[4] Ibid., May 4th, 1901, p. 1121.

CENTRAL LONDON THROAT AND EAR HOSPITAL, GRAY'S INN ROAD.—The annual meeting of the committee and subscribers of this hospital, of which H.R.H. the Duke of Connaught is the patron, was held last week, Captain Hutton presiding. The report read by the secretary, Mr. F. Kershaw, showed that the ordinary income of the hospital for the past year amounted to £2032 and the expenditure to £2328. The liabilities at the present time were no less than £3579, of which £2000 were owing to the bankers; an urgent appeal was made for funds to redeem these debts and also for the erection of an operation room, towards which the council of the Prince of Wales's Hospital Fund had given a donation of £150.

THE CONTAMINATION OF POST-OFFICES.

ACTION TAKEN BY THE FRENCH GOVERNMENT.

(FROM OUR SPECIAL CORRESPONDENT.)

THE candidates for employment under Government are far more numerous than the vacancies that occur. This is not only the case with regard to the better paid posts of the Civil Service, but even the poorest positions in small post-offices, for instance, are eagerly sought after. But if the demand for employment under Government is keen in England it is even more accentuated in France. Such a form of occupation is thoroughly in keeping with the natural instincts of a large section of the French people. There the spirit of commercial enterprise is not so widely developed, but there is a very strong love of officialdom, consequently it is more easy for the French Government than for the English Government to obtain the civil servants needed by the various State Administrations. Under such circumstances there is no absolute need to improve the conditions of employment. Even if these are unhealthy and the civil servants die off rapidly it will be easy to replace them. This is a callous view to take, but then Governments or Ministers are so busy and have so many matters to manage. The poorer and less influential classes are thus especially likely to be neglected. It is therefore particularly to the credit of the present French Government that it should have gone out of its way to improve the condition of its humblest servants. As an employer it is especially in the postal and telegraphic services that the State engages the service of a large number of persons at a low rate of pay. Now in France, and more particularly in Paris, it has been found that an exceptionally large proportion of the post-office clerks and others employed indoors died from tuberculosis. This disease is not so prevalent among the letter-carriers whose work keeps them out of doors. Consequently, in the month of April, 1900, a circular was sent by the Government to the chiefs of all the post-offices insisting that an official notice should be hung up warning the public not to expectorate on the floor. But the first injunctions sent out produced very little effect, and Dr. Mignot, member of the Government Commission of Tuberculosis, was instructed to draw up a special report on the subject for the administration of the posts and telegraphs. Dr. Mignot's report bears the date of Jan. 9th, 1901, and has become, as it were, the scientific sanction of the more energetic measures now taken by the Government.

Dr. Mignot points out that the Commission appointed by the President of the Council—i e., M. Waldeck-Rousseau—to discover the most practical means of checking the spread of tuberculosis had lengthily discussed the dangers arising in localities where a large number of persons gather together. In such places one single individual suffering from tuberculosis and expectorating on the floor might, they considered, endanger the health of hundreds of other persons. On the other hand, as the means by which tuberculosis is spread are now known, this danger might be almost entirely dispelled if the proper precautions were taken. Where many were employed, and especially if they were employed by the State, it was easy to take these precautions. A useful example could thus be given. Dr. Mignot regrets he cannot produce precise statistics because those suffering from the earlier stages of tuberculosis were not known to the Administration. Nevertheless, it was ascertained that in 1899 there were about 71,000 persons employed in the French postal and telegraphic services. Of this number 200 were certified to have died from tuberculosis during that year and 88 had to be dismissed because they were suffering from this disease. This is equal to a mortality of 28·1 per 10,000 and a loss to the service of 40 5 per 10,000 through tuberculosis alone. But if we take into consideration those who die after they have been removed from active service the mortality from tuberculosis among this category of civil servants is likely to be about 40 per 10,000. The general mortality from all diseases was 1557 during the years 1897, 1898, and 1899, and the deaths from tuberculosis amounted to 561, not including those who had been dismissed from the service; therefore, out of 100 deaths about 36 are due to tuberculosis. Taking the entire population of France the deaths from tuberculosis are set down at 54 per 10,000, but this higher figure deals only with the towns where there is a regularly established statistical service, and this does not exist in many rural districts for the general public, though it does for the persons in the employ of the State. Also, the higher figure includes persons of all ages and conditions of health, while those engaged in the postal service have to pass a medical examination before they are admitted. The fact that the employés in the postal services are especially exposed to tuberculosis is more emphatically demonstrated if only the statistics of Paris be taken. In 1899 the post-office clerks, &c., numbered 1500. Of these, 43 died from tuberculosis and 50 had to retire from the service in consequence of this disease. This made a loss equal to 62 per 10,000, whereas the mortality from tuberculosis for the entire population of Paris amounted to only 49 per 10,000.

The first precaution to be taken, according to Dr. Mignot's report, is to prevent the contamination of the post-offices by providing numerous spittoons. These should not be put on the floor but on stands about three feet high, and they should contain an antiseptic solution. The whole question resides in preventing the desiccation of the sputa and its conversion into dust that can be conveyed to the lungs with the breath. Till such measures have been enforced Dr. Mignot insists that every post-office must be considered as a contaminated place. The method of cleaning the offices must be altered. Sweeping and dusting only propagate the evil. The broom, says Dr. Mignot, "is a terrible engine of death." The floors must be wiped over every day with wet rags and scoured once a week. This practice has already been introduced in barracks and police-stations. The ideal would be to wash in the same manner the walls and the ceiling. The floor, especially where the public is admitted, should be made of an impermeable substance. But the greater part of the offices have been built in a most unsuitable manner and there are any amount of dark corners, angles, and recesses where dangerous dust accumulates. The telephone cabinets are also dark and unsuitable recesses. All this, it is urged, must be altered when new offices are built. With regard to the postal servants themselves, no candidate suffering from tuberculosis should be accepted. Instruction should be given to all as to the best means of protecting themselves from this disease. Finally, when anyone contracts tuberculosis he should be sent away and properly treated. The medical examination before admission to the service should be more strict; the written details given of the diagnosis of illness during service should be more detailed, especially when the complaint is contagious. When a case of tuberculosis does occur it is rarely possible to nurse the patient properly in his own house, and yet the State cannot abandon its servants. Therefore, and in spite of the considerable cost involved, Dr. Mignot recommended that a sanatorium should be built for the employés who suffer from tuberculosis.

Following upon this advice a sanatorium for tuberculous patients has now been established near Paris, and M. Millerand, Minister of Commerce, Posts, and Telegraphs, sent out a strongly-worded circular to the chiefs of all the post-offices, which was dated Feb. 1st, 1901. In the first sentence M. Millerand complains that in spite of numerous recommendations issued in regard to the sanitary measures to be adopted at the post-offices these offices are still left in a very defective condition, and he adds: "I absolutely insist that this state of affairs, which is so prejudicial to the health of the employés and of the public, shall cease." Therefore M. Millerand gives instructions that on the receipt of this circular spittoons containing a 2 per cent. solution of sulphate of copper must be placed in the post-offices. They should be of a cone-like shape and of enamelled ironware. The contents must be thrown down the drains at least every other day, and the posters instructing the public as to the importance of utilising the spittoons are to be put up in prominent positions in the post-offices. Any postal servant who does not observe the rules must be reported. Further, the circular adds that the floors of all the post-offices are to be rendered impermeable by the application of a coal-tar mixture. Then when the leases of the premises occupied are terminated they must not be renewed unless the proprietor consents to effect sundry sanitary improvements, including the substitution of tiles for the wooden floors. Nor must the sweeping with brooms be allowed—cloths wet with a 2 per cent. solution of carbolic acid must be used instead. Wall-papers are to be replaced whenever possible by oil-paint, coloured varnish, or other substances that can be easily washed. Nor must posters and public announcements be allowed to remain too long on the walls, but must be renewed when dirty or dusty. All the chairs, desks, and other furniture must be kept scrupulously clean. The telephone cabins must be washed out every day with a carbolic acid solution. "Further," adds M. Millerand, "I attach the greatest importance to the frequent cleansing of the urinals and water-closets and that the offices should be amply ventilated, especially during the hours when the staff is absent" Other equally practical instructions are given and this in an authoritative and positive manner. Then the circular concludes with the warning that inspectors will be sent round to see if these instructions have been carried out.

In regard to the construction of new post-offices a Ministerial decree was issued on Jan 30th, 1901, stating *that all plans for such edifices must be submitted to the* medical committee attached to the Ministry before they can be sanctioned. Further, all premises which are to be used for the postal services must be inspected by medical officers especially appointed for that purpose. Details for the application of this decree are given in a Ministerial circular, dated April 1st, 1901. This circular first explains that, so far, the tendency has been to instal the postal services in buildings that already exist and that were not constructed for this special purpose and consequently are so defective as seriously to compromise the health of the employés. Therefore, the circular urges that whenever possible instead of renting existing premises buildings should be erected especially for the postal services. The local postal authorities are urged to endeavour to come to some mutual agreement with private banks and other financial establishments which need offices possessing somewhat similar sanitary advantages To facilitate such endeavours the architects attached to the administration, acting according to the indications given by the Ministerial Medical Committee, have drawn up plans of model post offices, and these accompany the circular. In regard to the premises occupied for the postal services there is also a circular forbidding the employment of lead in the paint used. No building contract is to be signed unless those concerned undertake to employ oxide of zinc instead of lead in the paint used for the walls, doors, &c. From all this it will be seen that the Minister of the posts and telegraphs has exercised paternal watchfulness over the 71,000 persons who are under his control. The great difficulty is the ignorance and indifference of the postal employés themselves Their knowledge of bacteriology and of sanitary science is very limited and all the rules and restrictions which M. Millerand is endeavouring to impose are apt to be qualified as grandmotherly legislation that is vexatiously meddlesome and trivial. But there is no better form of education than that derived from object-lessons, and as these sanitary measures are more widely enforced the persons concerned will gradually realise their advantage and lend themselves to their more strict and effective application.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

An Important Scheme in Connexion with the Indian Census —The Biological Treatment of Sewage in Bombay City.—The Decline of the Plague Epidemic —Precautions at Simla —The Indian Medical Service.—Some Acquired Habits of the Natives of India —The Continued Famine

A SCHEME has now been sanctioned whereby various investigations are to be undertaken in connexion with the census operations with regard to ethnography, or the systematic description of the history, structure, traditions, and religious and social customs of races and castes in India, and also their anthropometry. Each local government will appoint a superintendent who will have a staff under him and who will have funds to reward persons to draw up the monographs on the various castes for the provinces of Madras, Bombay, Bengal, the North-West Provinces, the Punjab, Burmah, the Central Provinces, and Assam. The total cost will exceed £10,000

Probably on account of the successful institution of the biological treatment of sewage at the Leper Asylum, Bombay, the commissioners of the city are about to adapt this system to a part of the drainage of the city. It is proposed to construct a septic tank to contain one day's flow, or 300,000 gallons, of sewage. The process is much more rapid in the higher temperature of India than in England, so that this construction gives a liberal allowance. The tank is to be made into compartments in case it requires to be cleaned. In addition to the septic tank there will be bacteria beds to carry on the aerobic purification These will be filled automatically and will thus give to the beds their periods of aeration. The gas which comes off from the septic tank is to be collected and utilised for the illumination of the works at night. The effluent, which in the Leper Asylum has been proved to be so remunerative on the farm, will in the city drainage scheme unfortunately be allowed to run into the sea. This system of treatment of sewage is also to be applied to several adjacent villages and will in this installation be utilised for the irrigation of a farm. It is expected that the annual cost of the latter experiment will be more than *covered by the yield of the farm. As the farm has been* made to pay at the Leper Asylum I do not see why it should not, if properly managed, be made to pay elsewhere. The adoption of this scheme by the Bombay municipality speaks well for the work already executed by the engineer at the Leper Asylum

The epidemic of plague is declining rapidly. The total deaths throughout India for the week ending May 25th were 1427, as compared with 1918 in the previous seven days. The deaths, however, are still in excess of the corresponding period of last year The mortality has dropped in Bombay city from 295 to 199, and in the Presidency from 457 to 97. In Bengal the worst places are Calcutta (47 deaths), Patna district (38 deaths), Saran district (78 deaths), Gaya district (36 deaths), and Darbhanga district (57 deaths). There has been a slight rise in the Jumna district of Kashmir. An unfortunate occurrence is reported from Patiala territory. Inoculation had been introduced for a few cases of plague, and amongst others a Hindu lad was inoculated but died within an hour. The medical man declared the death to be due to plague, but the villagers were up in arms and put the death down to inoculation This incident has of course acted adversely to the progress of inoculation and it shows apparently great carelessness If the lad died from plague he must have been ill when he was inoculated. Some authorities seem to think that this operation can be left to almost anybody to perform, but it would seem that these public performances of inoculation by officials should be only made under direct European supervision. A somewhat similar death following inoculation occurred some time ago in Calcutta and it is said to have acted to the discredit of inoculation ever since

The proximity of plague cases to Simla has determined special precautionary measures being taken to prevent plague cases occurring in that place. A plague hospital and camp have been constructed and the usual arrangements for segregation have been made. During the last fortnight a large quantity of plague prophylactic serum has been sent out from the Plague Research Laboratory, Parel, Bombay, *some going to Shanghai, some* to the Seychelles, and some to South Australia.

There is a proposal to increase the strength of the Indian Medical Service, as recent experience has shown it to be seriously undermanned. Until this has been decided upon the further proposal to divide the furlough reserve of the service between the military and civil departments will stand in abeyance.

So called German "whisky" has apparently attracted the taste of the poorer classes in India. It has had a largely increased sale during the past year, probably from its cheap price of about Rs 3 a gallon. British spirit costs over Rs. 8 and French spirit nearly Rs 10 a gallon Recent revelations are said to have shown that this "whisky" sent to India is made of methylated spirits, coloured, sweetened, and flavoured. It has been known for some time that well to-do natives have developed a taste for whisky and other strong alcoholic beverages, and that this altered taste is extending rapidly. Whether these forms of alcoholic liquors will be withstood by the native constitution remains to *be seen. Another* change of habit is said to have occurred in the more general use of umbrellas by all classes of natives A serviceable umbrella is largely imported which sells at about a rupee. The importance of this innovation consists in the probable effect of the sun's rays after the prolonged use of the umbrella has caused the native's head to become more sensitive. Some authorities will assert that sunstroke only occurs in those who are overfed or who have alcohol in their stomachs. It is at any rate very uncommon among those who are in repose—exercise being a powerful factor in its determination. The native with his dark eyes and black skin can readily withstand the glare of the sunshine. This it is which causes the chief distress and minor ailments to the pale-faced European. Even among the latter sunstroke is probably not so common as is generally supposed. In the course of a few years, however, we may hear of the natives getting sunstroke.

The numbers under famine relief continue to increase. Half a million people appeal for assistance. In Bombay province the totals are 353,247; Bombay native States, 41,462; Baroda, 25,649; Hyderabad, 13,913; Central India States, 4712; and Madras, 5165. Fortunately there is every hope of a satisfactory monsoon.

May 31st.

MANCHESTER.

(From our own Correspondent.)

Heaton Park.

As was anticipated a fortnight ago the Manchester City Council are repeating the performance which they indulged in over Trafford Park. On June 5th, at the monthly meeting of the council, the report of the Parks and Cemeteries Committee, which was adverse to the purchase of the park, was received for entry on the minutes and an amendment in favour of offering £210,000 was rejected by 44 to 28. The effect of this is that the resolution of the council passed in April last authorising the Parks Committee to consider the question of purchase still holds good, but that further negotiations, if any, are to come from the other side. It is pretty generally agreed that a mistake was made in letting Trafford Park slip and regret is felt, not only that an open space valuable from a hygienic standpoint was lost to the city, but that a good bargain for the ratepayers was thrown away. If Heaton Park could be kept as an open space without purchase it would be all very well, but that cannot be. The alternative to purchase is that before very long it will be utilised by the jerry-builder and covered by inferior houses, so that the smoke by which, according to some of the councillors, it is already affected will be considerably increased. It is time for the smoke nuisance in Manchester and Salford to be more vigorously dealt with, and with the increased use of gas and electricity there ought not to be much difficulty in freeing the city from much of the cloud that now overhangs it.

The Ancoats Explosions.

The sewer explosions in Ancoats on May 3rd were referred to by the deputy chairman of the Rivers Committee at the meeting of the Manchester City Council on June 5th. He said that they occurred on the introduction of a lighted candle into the bell mouth of a sewer, and that "a certain firm of manufacturers" had admitted that the emission of "a certain inflammable effluent" from their works into the sewer had caused the explosion. This effluent should have gone into a catchpit but got into the sewer "by accident." This "certain firm," the name of which was not revealed, had undertaken to pay for the damage done. Dr. Bishop said that he had been connected for seven years with a society which had been agitating against the pouring of noxious fluids into the sewers, and that it was humiliating to the council that it had taken no action in the matter until an explosion had occurred. In a letter to the papers the Rev. S. Nugent Perry, rector of St. Mark's, says that "for many years the people have been bitterly complaining to the corporation authorities of the foul smells and, in my opinion, dangerous gases which have forced their way into their dwellings from the sewers." It seems that the manholes have been fitted with iron plates which kept the gases from escaping into the open streets but transferred them into the houses where the nuisance was increased tenfold. In a report of the Sanitary Committee dated December, 1898, some of the sewers were ventilated into the chimney of some works, but "with regard to the Canal-street sewer it has not been thought advisable, owing to the highly-explosive nature of the liquids used, these being a source of great danger should a small quantity even get accidentally into the sewer." So that this danger has not been sprung suddenly on the city authorities. Mr. Perry also says that where the manholes were sealed up, "notwithstanding protests, there have been three explosions—viz., Oct. 3rd, 1898, when the manholes were blown open and the pavement disturbed in Sandal-street; on Whit-Sunday, 1900, in the dwelling-house, 267, Bradford-road, where the cellar-flags were blown up; and the recent one on May 3rd." Mr. Perry thinks that the explanation of the deputy chairman is poor consolation to those who are compelled to live in the neighbourhood. With this opinion most of us will agree. It is perhaps a difficult and delicate question as to whether the city authorities or "a certain firm of manufacturers" should be held as the more culpable. The one knows of a danger and applies a remedy which is not a remedy but merely diverts explosive forces from one place to another, while the firm of manufacturers allow their catchpit, about which we are told very little, to fail in its duty and explosions take place. There seems to be a failure of duty and of obligation on both sides. But corporations are said to have no souls, and the same proverb may possibly be applicable to "firms."

No Accommodation for Lunatics.

A case was brought forward at the meeting of the Chorlton Board of Guardians on June 7th which illustrates some of the difficulties that occur in dealing with lunatic patients. The workhouse master reported that he had refused admission to a man brought by the police, as they had at the present time no accommodation. "The man was insane, of suicidal tendencies, and dangerous to others." It was stated that the receiving room in the male lunatic ward was full and even overcrowded and that there were two padded rooms continually occupied. There were also three suicidal inmates and four delirium tremens patients under treatment. The chairman said that the Manchester Board of Guardians were not troubled with lunatics apprehended by the police. They were taken in charge, and as early as convenient they were taken to the police-court and certified by a medical man that they were lunatics and should be removed. The magistrates on the bench signed the order and the police took the patients to the asylum. The superintendent of an asylum must take the case in. He thought the Chorlton Board were entitled to the same treatment as other boards. With the asylums and the workhouses full, the provision of additional accommodation ought to be pushed on with more energy than seems at present to be expended on the matter.

Overcrowding of the Chorlton Union Workhouse.

At a recent meeting of the Chorlton Board of Guardians Mr. Jenner-Fust, an inspector of the Local Government Board, made some strong remarks on the overcrowded state of the workhouse. He said that no one could go through the wards without seeing that day-rooms were occupied as dormitories, beds put close together, and all the usual signs of the accommodation being insufficient. It was decided to provide additional accommodation in December, 1897, but for various reasons the extensions had not been carried out. One reason probably was the doubt as to the future of the imbeciles and epileptics, but legislation with respect to them had apparently been indefinitely postponed, so that it was all the more necessary for the guardians themselves to deal with the question of accommodation for the indoor poor. He recommended the plan of building two new pavilions so as to allow of future extension, to be occupied at first by the imbecile and epileptic patients, which would relieve the serious overcrowding of the main building, and of a new nurses' home. When the new asylum was built the pavilions would afford accommodation for the sick. It seems that there are still 90 children in the workhouse, and Mr. Jenner-Fust said that the guardians should direct their attention to the removal of the whole of them. He thought that they could hire premises which with slight alteration would enable them to accommodate the "ins and outs" who could not be transferred to Styal, and he also expressed the hope that the Joint Asylum Committee would "come to some definite decision in proceeding with the scheme for dealing with imbeciles and epileptics." As regards the extension of the Styal homes Dr. J. M. Rhodes referred to the delay of the Local Government Board in passing the plans. He did not know who was to blame but he wished the ratepayers to understand that the guardians were not in fault.

Manchester and Salford and a Small-pox Hospital.

At the meeting of the Salford Council on June 5th it was carried by the casting vote of the mayor that the Health Committee should reopen negotiations with the Manchester

Corporation in favour of the joint use of the proposed hospital for small-pox to be built in Drinkwater Park Objection was made that Manchester patients would have to be taken through the streets of Salford at the risk of spreading sickness in the borough, but Dr. C H Tattersall had assured the proposer of the motion that there would not be the least danger No scheme can be brought forward to which objection will not be raised, but if this one can be carried out it must prove an economy to both towns which should be pleasing to the ratepayers It is curious to notice how the long suffering ratepayers are always brought forward in opposition to every effort made for the improvement of the health and surroundings of a community, and how many deeds of narrow short sightedness and unwisdom are done ostensibly for their benefit

Stockport Water supply.

The supply of water to Stockport has for a long time been somewhat anxiously considered The corporation may therefore be congratulated on the preamble of the Bill to enable them to go to the Hayfield district for an additional supply, at an estimated cost of £800,000, having been proved

June 18th.

WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS)

Sanitation at Weston super-Mare

IN many country districts and in small towns the sanitary officials are not encouraged by the local authorities under whom they serve to hunt up insanitary conditions, it is *usually deemed sufficient for them to deal with such as are* brought to their notice, but it is not often they receive definite instructions to neglect a duty cast upon them by an Order of the Local Government Board It might be supposed, too, that a seaside resort would be the last place in which such neglect would be recognised, but the urban district council of Weston super Mare at their meeting on June 13th instructed the inspector of nuisances not to inspect and report upon the drainage or condition of empty or other houses unless a *bonâ-fide* nuisance exists or is alleged to exist, the council considering that it is no part of the duty of the sanitary authority to undertake work of a private nature which more properly belongs to the business of a sanitary engineer. It is generally held that systematic and regular inspection of all premises is the best mode not only of discovering nuisances but of preventing slight nuisances becoming grave dangers The Weston super-Mare District Council apparently think otherwise and need to be reminded of the Order of the Local Government Board dated March 23rd, 1891, Article 19 (3) of which, referring to the duties of an inspector of nuisances, requires that "he shall by inspection of the district both systematically at certain periods and at intervals as occasion may require keep himself informed in respect of the nuisances existing therein that require abatement" The members of the district council might also read with advantage Section 92 of the Public Health Act, 1875, which states that "it shall be the duty of every local authority to cause to be made from time to time inspection of their district with a view to ascertain what nuisances exist calling for abatement under the powers of this Act'

Electric Light at Pontypridd Workhouse

The board of guardians of the Pontypridd Union have decided to light the workhouse at Pontypridd with electric light The installation will consist of about 500 incandescent lamps generated from plant to be erected on the premises

Overcrowding.

Although the census returns have shown the estimates of the population in several colliery districts in Glamorgan to have been placed too high there is undoubtedly in many localities a great deal of overcrowding of houses A very flagrant instance is reported from Margam, where in a three-roomed house with two bedrooms there were living in addition to the father and mother and six children as many as five adult lodgers

Admission of Visitors to Workhouses

There has been some discussion recently at the meetings of the Tavistock (Devon) Board of Guardians in reference to the guardians allowing members of the Salvation Army to visit the sick wards of the workhouses, the medical officer holding that as he was responsible for the health of the inmates the right of allowing these visitors entrance should be vested in him The Local Government Board were eventually appealed to on the matter, and at the meeting of the guardians held on June 14th a letter was read from that authority stating that the guardians could allow members of the Salvation Army or of any other religious denomination to visit the sick at the workhouse, but if the medical officer considered that the holding of services in, or the admission of visitors to, the workhouse would be detrimental to the health of the inmates his views should be attended to

Isolation Hospital for Tiverton and District

Tiverton (Devon) Isolation Hospital was formally opened on June 8th The hospital is built on the block system and contains accommodation for 13 beds; the grounds have an extent of three acres The cost of the building, including the land, has been £6300, and the maintenance is estimated at about £700 per annum

June 17th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS)

Glasgow University

THE celebration of the four hundred and fiftieth anniversary of the foundation of Glasgow University has proved in every respect an unqualified success The programme of events was certainly a somewhat crowded one, but the energy and *organising ability of the University authorities proved fully* equal to the occasion, and the lighter social festivities as well as the more severe academic exercises were carried through with a smoothness and completeness on which all concerned are to be heartily congratulated Perhaps the most striking feature of an occasion which must necessarily remain a conspicuous landmark in the history of the University was the number and distinction of the delegates sent to convey congratulatory and sympathetic messages from sister universities and learned bodies in all parts of the world The only academic event which in this respect can afford a parallel, at least in recent years, is the celebration of Lord Kelvin's jubilee as a professor some seven years ago In addition to men of distinguished reputation sent from all parts of Great Britain and from India and the colonies representatives were present from the principal universities of the continent and the United States, two native Japanese professors presented a congratulatory address from the University of Tokyo, and a sympathetic message was announced from the Pope To all these Glasgow extended a hospitable welcome and as an expression of her appreciation many of the foreign visitors were honoured by receiving the honorary LL D degree The ceremony at which the delegates were presented followed the commemoration service in the Cathedral and was a very impressive occasion It was introduced by an eloquent address delivered by Principal Story who read a message of congratulation received from His Majesty the King The most prominent event of the second day's proceedings was the graduation ceremony, at which an address on James Watt was delivered by Lord Kelvin and one on Adam Smith by Professor Smart Among those who received the honorary degree of LL D were most of the foreign delegates and a considerable number of representatives from the United Kingdom Among the best-known names were those of Lord Balfour of Burleigh, the Marquis of Dufferin, Lord Strathcona, Lord Reay, Lord Glasgow, Lord Beauchamp, Major General Sir Ian Hamilton, Lieutenant-General Sir Archibald Hunter, Sir William Selby Church, Sir William MacCormac, Sir James Reid, Sir Henry Roscoe, Professor Bayley Balfour, Professor Chiene Professor Fraser (all three of Edinburgh), Professor Cunningham (Dublin), Professor Oliver Lodge (Birmingham), Principal John Yule Mackay (Dundee), Professor Ogston (Aberdeen), Principal Sir George Philipson (Durham), and Sir John Williams (University College, London) Mr Carnegie received the same degree, and his advance to the platform not unnaturally was greeted with a special ovation For the first time in its history the University included ladies among its honorary graduates, and the Principal, in the name of the Senate, "capped" Mrs. James Campbell, Mrs. John Elder, Miss Emily Davies, and Miss Agnes Weston. The third day of the ceremonies included an oration on William Hunter by Professor John Young who traced Hunter's connexion with the University and delivered an eloquent appreciation of his work and of the services which he rendered to his *alma mater*, more especially in the gift of the museum which bears his name. The last academic event of the jubilee celebrations which remains to be chronicled was the opening of the new Botanical Institute which has been designed and equipped on a most elaborate scale. The ceremonies in connexion with this attracted much interest. Sir Joseph Hooker formally declared the institute open and in doing so gave an account of the life and work of his father who was Professor of Botany in the University of Glasgow for a period of 20 years. The vote of thanks to Sir Joseph Hooker was proposed by Lord Lister. Speeches were also delivered by Sir William Thistleton Dyer and by Professor Bayley Balfour. The social features of the celebrations were both numerous and varied. They included conversaziones, garden parties, a banquet, a students' ball, and a gaudeamus, and all of these were marked by great vivacity and success. The corporation entered heartily into the University scheme and gave a banquet in honour of the University and its official guests, and the University, not to be outdone in courtesy, made the Lord Provost an honorary LL.D. Apart from the sentimental value and interest of all these proceedings they may be expected to attract attention to the wants of the University and to its attempt to raise a large sum for extending its laboratory and research equipment. Some evidence of this is found in the fact that during the week the Principal has received one cheque for £5000 and a second one for £2000. Mr. Carnegie's munificent benefaction will do much for the universities and for Scotland, but it will not satisfy every need. Instead of checking the generosity of others it is hoped rather that it will provide the proverbial force of a good example.

Presentation of a Statue of Queen Victoria.

At a meeting of the Town Council of Paisley on April 24th 1900, ex-Provost Clerk stated that a gentleman who wished his name to be withheld had offered to present the town with a statue of Queen Victoria. The council unanimously accepted the offer and the central site of the William Dunn-square was granted for its erection. Much speculation took place as to the identity of the donor, but it became known only quite lately that he was Dr. John Baird Hunter of Paisley. On June 11th the statue was unveiled by Miss Hunter, a sister of the donor, in the presence of a large and enthusiastic assembly. Dr. Hunter then delivered an address, after which Provost Wilson spoke in eulogistic terms of the public spirit which actuated many present and former inhabitants of Paisley and concluded by formally accepting the gift in the name of the citizens. A meeting was afterwards held in the town hall, at which Dr. Hunter presided and various speeches were made. The statue is of bronze on a square granite pedestal, the height of the pedestal being 7 feet and that of the statue 6 feet 10 inches. It represents Her Majesty as at the date of the Diamond Jubilee. The inscription on the front is, "Victoria Dei Gratia Regina Imperatrix Praestantissima, 1837–1901."

Public Baths, Aberdeen.

The city architect has been ordered to report as to the cost of putting into order for the busy season the swimming pond and some of the private baths at the foot of Constitution-street in the premises of the Aberdeen Swimming Bath Company, lately acquired chiefly for the Corporation Tramways Department.

Proposed Public Sanatorium for Aberdeen.

At the last meeting of the Aberdeen United Trades Council the following motion was unanimously adopted: "Considering the fact that nearly one-fifth of all the deaths in this city are caused by tubercular disease, and that professional opinion is unanimous in declaring that when taken in its early stages it is curable, this council agrees to approach the town council with the view of asking them to consider the advisability of erecting in the country a hospital for the open-air curative treatment of consumption." The chairman estimated the cost of 10 acres of land at £1000, and of providing buildings for 160 patients annually at £6000, and the yearly charge at £3400, equal to about 1¼*d.* per pound additional on the rates. It was also resolved that a request should be made that a deputation should be heard by the Corporation's Public Health Committee.

University of Aberdeen.

Mr. Pittendreigh Macgillivray, A.R.S.A., Edinburgh, who has been commissioned to execute the proposed mural medallion portrait of the late Principal Sir W. D. Geddes for King's College, is to visit Aberdeen and to recommend a suitable position.—Aberdeen University sports were held on June 12th and resulted in a popular and successful gathering.

Small-pox at Peterhead.

A mild case of small-pox is being treated in hospital and no danger of the disease spreading is entertained.

Unhealthy Area in Aberdeen.

The old Bursars' Hotel and other buildings, Nos. 59 to 62, Exchequer row, included under the Provisional Order for dealing with the unhealthy area in that quarter, are to be removed.

Another new Public Park for Aberdeen.

Aberdeen's city chamberlain has been instructed by the town council's Parks Committee to negotiate with the Northern Lighthouse Commissioners, owners of Girdleness Lighthouse, as to the marking out of the boundary line of a new public park, near the bay of Nigg, for the use of the people of the municipal ward of Torry, on the south side of the River Dee. The new park is to be under the charge of the superintendent of Duthie Park and part of the ground will be at once ploughed up and sown with grass seed.

June 18th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The National Association for the Prevention of Tuberculosis.

AT a meeting of the executive committee of the National Association for the Prevention of Tuberculosis held on June 5th at the Royal College of Physicians of Ireland a resolution was adopted unanimously in favour of bringing before the notice of the Commissioners of National Education the advisability of appointing lecturers to give instruction on the prevention of consumption to the students in the various training colleges for teachers in Dublin. Sir Charles Cameron's report as to the working of the voluntary system of notification adopted by the Dublin Corporation stated that since October last 65 cases of phthisis had been notified, chiefly by the dispensary medical officers, but that in the majority of cases the patients' friends refused to allow the infected rooms to be dealt with. In all cases application for liberty to disinfect was made, but in only about one-fourth was it acceded to. The proper remedy, Sir Charles Cameron said, was the conferring upon the health authorities of compulsory powers of disinfection and the inclusion of tuberculosis in the list of diseases which must be notified, but until that power was obtained the public health departments of the city and the two outlying townships of Pembroke and Rathmines were prepared to carry out the work of disinfection free of cost. The Marquis of Dufferin and Ava presided at the last meeting of the Belfast branch of the society and made some interesting observations. The mortality, he said, from consumption in Ulster, which otherwise was as healthy a region as any in the United Kingdom, was double that of Lancashire and quadruple that of the healthiest counties of Great Britain.

Irish Medical Association.

The sixty-second annual meeting of this association was held in the Prince's Restaurant, Belfast, on June 11th. The incoming President, Professor Whitla, in his address, after thanking the members for electing him and welcoming them to Belfast, referred to the objects and aims of the association. He dwelt upon the grievances of the Irish dispensary medical officers—superannuation, abuse of the ticket system, locum-tenents, and annual holidays—which the association had tried to remedy, as well as upon such points as the rights of factory and police surgeons, consultants' fees, sanitary prosecutions, lunacy fees, &c. He regretted that of 800 Poor-law medical officers less than one-half were members of the association and that of the 2500 medical men residing in Ireland only about one-fourth were enrolled. The annual report showed that the council had held five meetings and the committee of council 38 meetings during the year. 44 members had been elected. £158 had been expended in law costs during the year, the greater part being incurred in the effort to secure the rights of medical officers to four weeks' vacation. On the motion of Mr. S. B. Coates (Belfast), seconded by Mr. J. W. Olpherts (Downpatrick), the report and statement of accounts were adopted. Sir Charles Cameron moved, and Dr. A. H. Benson (Dublin) seconded, the following motion which was passed :—

> That the council be instructed to take such proceedings as may seem advisable in support of the Poor-law Officers' Superannuation Bill now before Parliament.

On the motion of Mr. T. Myles (President of the Royal College of Surgeons in Ireland), seconded by Dr. J. B. Story (Dublin), it was agreed :—

> That as the duties of Poor-law medical officers require ceaseless attention at all hours, day and night, it is in the interest of the sick poor as well as of the medical officers that a period of needful rest be provided, and that the Council be instructed to continue their exertions to have Article 28 of the Dispensary Regulations so amended as to secure to medical officers their reasonable demand for an annual vacation:

Dr. L. Kidd (Enniskillen) moved, Dr. S. Agnew (Lurgan) seconded, and it was passed :—

> That the Council be requested to consider the advisability of revising the articles of association generally, and especially with regard to the formation of branches and making the association a defensive one.

On the motion of Mr. O'C. J. Delahoyde (Dublin), seconded by Mr. J. Taylor (Tandragee), it was carried—

> That this meeting declares that the salaries at present paid to the dispensary and workhouse medical officers are inadequate and totally disproportionate to the labour involved in the onerous and important duties they have to discharge, and therefore that the council be instructed to take this question into immediate consideration with a view of formulating a scheme whereby a minimum salary, rising by periodical increments to a certain maximum, shall be fixed for all Poor-law medical appointments, and that copies of this resolution be sent to the different licensing bodies and their coöperation requested to attain its object.

A vote of thanks to the retiring President (Sir P. C. Smyly) and to the press concluded the meeting, after which the visitors were shown over the great shipbuilding yard of Harland and Wolff. Subsequently they attended the garden party given by the Lord Mayor and Lady Mayoress to welcome home the Ulster Yeomen. In the evening the annual dinner was held in the Prince's Restaurant, when Professor Whitla, the President, occupied the chair. In addition to a large number of members the following guests were present: The Lord Mayor, the High Sheriff, Sir James Henderson, D.L., Sir R. J. McConnell, Bart., D.L. Sir Charles Cameron, Professor Byers (President of the North of Ireland Branch of the British Medical Association), Professor W. H. Thompson (President of the Ulster Medical Society), Lieutenant-Colonel Thomsett, P.M.O., R.A.M.C., Mr. C. J. Clibborn (Local Government Board inspector), Mr. H. G. Croly (Dublin), Mr. T. Myles, Mr. R. Agnew (Local Government Board inspector), Mr. J. R. Fisher (editor of the *Northern Whig*), and Mr. A. McMonagle (editor of the *Ulster Echo*). After a very well-served dinner the following toasts were given. "The King" and "The Queen, the Duke and Duchess of Cornwall, and other members of the Royal Family," were proposed by the President. "The Lord Mayor and Corporation of the City of Belfast" was proposed by the Chairman, to which Sir Daniel Dixon, D.L. (the Lord Mayor), replied. Sir James Henderson, D.L., gave "The Navy and Army," to which Lieutenant-Colonel Thomsett replied. Professor J. A. Lindsay proposed "The Medical Corporations," to which Mr. Myles responded. The toast of "The Irish Medical Association," coupled with the health of the President, was given by Professor Byers (President of the North of Ireland Branch of the British Medical Association), to which Professor Whitla replied. Sir Charles Cameron proposed "The Press," which was acknowledged by Mr. McMonagle and Mr. Langford Symes (editor of the Journal of the Association). Dr. McLaughlin proposed "The Health of the Local Government Board," to which Mr. C. J. Clibborn replied. "The Health of the Dinner Committee" was proposed by the chairman, and Dr. J. J. Robb, Mr. Coates, Dr. J. Nelson, Dr. H. L. McKisack, and Dr. J. Colville responded. During the evening selections were rendered by a band and vocal items were given by Mr. D. Glasgow and Mr. W. Livingstone. Prior to the commencement of the business meeting those present were hospitably entertained to light refreshments by the new President (Professor Whitla).

Sanitary Condition of Portadown.

Mr. C. J. Clibborn, Local Government Board inspector, in his report in reference to his recent inspection of Portadown, urges the necessity on the part of the urban council that they should no longer delay to take steps to adopt a more perfect system of sewerage. Stone-built sewers should be replaced by pipe sewers so as to prevent the soakage into the surrounding soil of deleterious matter. A consultant engineer should advise as to the best possible scheme to adopt to have the sewage purified before its discharge into the rivers or as to the adoption of some system of septic tanks for the final disposal of sewage. A supply of good drinking-water is urgently required. The condition of insanitary premises should be remedied and houses which are unfit for human habitation should be dealt with, and on this subject the medical officer of health should be asked to give a detailed report. The house drains connecting with the main sewers should be fitted with modern disconnecting traps and the back yards should be better paved so as to prevent soakage of deleterious matter into the surrounding soil. The Portadown Urban Council is to consider carefully this important report which is so condemnatory of the sanitary state of that thriving town.

The Irish Poor-law System.

At a meeting of the Armagh County Council on June 13th, the following motion, proposed by Dr. E. Magennis, J.P., was unanimously passed :—

> That in the opinion of the County Council of Armagh the time has now come when the Government should appoint a Commission to inquire into the working of the Poor-law system in Ireland with a view to introduce some other method of dealing with the poor, or to make such changes in the present system as will lessen the very heavy expenditure imposed on the ratepayers and be more in accordance with the wishes of the people.

The evils of the present system, which everyone must admit, were fully pointed out by Dr. Magennis.

The Midwife Question at Caledon.

In THE LANCET of June 1st, p. 1574, appeared a reference to a sworn inquiry by the Local Government Board of Ireland in regard to an extraordinary verdict of a local jury condemning Mr. R D. Patterson, the medical officer of the Caledon and Ballymagran district, for "neglect of duty" in the case of a woman who died from puerperal septicæmia. The result of this sworn inquiry, brought about by a public meeting held in Caledon to protest against the verdict and demanding an investigation of the circumstances, is "that he [the medical officer] was not guilty of any neglect of duty in connexion with this case." The life of a dispensary medical officer in Ireland is truly an unenviable one, but fortunately, as in this case, there is occasionally a fair public opinion, and in every circumstance the Local Government Board still exists as a just tribunal to which in all cases there is the right of appeal. Mr. R. D. Patterson is entitled to the full sympathy and congratulation of his private and professional friends on his triumph in this case.

The Belfast Hospital for Sick Children.

Dr. W. C. Steen having resigned the post of assistant physician to the Belfast Hospital for Sick Children, Dr. R. M. Beatty has been appointed in his place.

Cork South Charitable Infirmary: Introduction of Nuns.

Some weeks ago the matron of the Cork South Infirmary resigned owing to ill-health and some of the Roman Catholic governors considered that members of a community of nuns should be introduced, one of whom should act as matron. The proposal came up for consideration at two meetings of the board of the institution and gave rise to considerable discussion. Though strong views were held on both sides the debates were conducted with decorum. The Roman Catholic view put forward by various speakers was as follows: that as 95 per cent. of the patients were Roman Catholics it was desirable to have religious consolation administered to them by nuns whilst due provision would be made for the Protestant patients; that the presence of nuns in the Cork Union Hospital had improved the moral tone of the inmates there; that the nun whom it was proposed to appoint as matron had already acted as a nurse at the union hospital and had received high commendation from the medical staff attached to that institution; that the services of four nuns, one of them to act as matron, could be had for £30 a year each without rations; and that the salary and rations of the last matron came to about the same amount—viz., £120 a year. On the other hand, the Protestant governors expressed the opinion that the matron should be one who had been specially trained in some large general hospital; that if a nun were appointed as matron Protestant parents could not be expected to send their daughters there to be trained as nurses; that no complaints had been made by the patients as to their treatment; that the spiritual wants of the patients were already freely provided for; that there were several Protestant subscribers; and that a portion of that support might be withdrawn. Eventually a vote was taken and four nuns of the Mercy order were selected, one to act as matron and three as assistants.

June 18th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Assassination of a Director of the School of Pharmacy by a Pharmaceutical Chemist.

A PAINFUL incident recently occurred at Nancy which has given rise to lively emotion among the various professors of the faculties. A pharmaceutical chemist, M. R. Four, killed M. Bleicher, the Director of the Higher School of Pharmacy. The facts of the tragedy are as follows. The Pharmacies Commission recently seized a sample of quinine from M. Four's establishment. On June 8th that gentleman, who was one of the best known pharmaceutical chemists in the town, received information that the result of the analysis of his quinine would be sent to the public prosecutor. This news made him quite silly. At 2 P.M. he took a revolver of large calibre, went off to the Faculty, and asked to see the Director. M. Bleicher received him, whereupon M. Four asked whether it was true that the result of the analysis was to be sent to the public prosecutor. M. Bleicher said "Yes," and M. Four promptly drew his revolver and fired at the Director who fell shot through the heart. On seeing the corpse at his feet M. Four shot himself through the head, expiring just as some of the lecturers who had heard the shots came rushing into the private room. M. Bleicher was 62 years of age and had only held the Directorship for one year. M. Four was only 45 years of age. At the outside he would only have had to pay a small fine or have been reprimanded by the authorities for having had on his premises quinine bought in bulk which was not up to the regulation alkaloidal strength.

The Blood-coagulating Principle of a Secretion of the Skin.

At the meeting of the Society of Biology held on June 1st M. Milian laid before the members the explanation of a fact which he had reported at the previous meeting—namely, the increased coagulability of the blood at the end of a hæmorrhage. It depends upon the secretion of a coagulating substance by the skin. The cells containing this substance are laid open by the puncture and thus allow their contents to escape. A demonstrative proof of this fact is afforded by ascitic fluid, which, although it does not coagulate spontaneously, yet does so rapidly on the addition of a small quantity of watery extract of skin. From these facts it would appear that the technique employed for clinical experiments upon the coagulability of blood is coarse and not to be depended upon. The results are in terms of the coagulating power of the skin and not in those of the coagulability of the blood. In hæmorrhagic diseases there exists together with the blood defect a tissue defect as well which may possibly be improved by appropriate serum treatment (*opothérapie*). Hæmophilia especially may be divided into two classes, a local "tissue hæmophilia," which is by far the kind most frequently met with, and a general hæmophilia having its origin in some condition of the blood.

Reforms in the Thesis for the Degree of Doctor.

Professor Pinard recently laid before the Faculty of Medicine a very interesting report upon some proposed reforms in the present system of presenting theses for the degree of doctor. His proposals are: 1. That the principle of the thesis should be maintained. 2. Every candidate offering a thesis shall choose his president and must also be accepted by him. The candidate must also have arrived at or beyond the sixteenth term from his matriculation. 3. The thesis which the candidate for the degree of doctor shall sustain must be a dissertation upon some subject relative to medical science. 4. The dissertation, whether printed or typewritten, must be in the president's hands at least one month before the date appointed for the reading and defence of the thesis. 5. The candidate shall deposit six copies of his dissertation with the faculty 15 days before the date of reading and defence. 6. The jury shall, abiding by the accustomed forms for the defence of a thesis, decide (*a*) whether the candidate's thesis shall be accepted; and (*b*) whether the thesis is worthy of being printed among the academical publications, in which latter case the candidate must supply the faculty with 200 printed copies. If the jury decide that the thesis is not worth publishing it shall remain among the archives of the faculty. It will be seen from these proposals that the principle of the thesis is maintained, but that certain restrictions are introduced which give an opportunity for discussion, not only at the Council of the Faculty, but also by the university and by the Minister of Public Instruction.

Absinthe Poison and other Toxic Essences.

At the meeting of the Academy of Medicine held on June 11th M. Laborde called to mind the baleful effects of absinthe and similar toxic essences. He asked that the Committee should consider the following terms of reference—(1) that without delay, in conformity with the motion put forward by Parliament, the committee in pursuance of its powers, should define those liqueurs, *apéritifs*, and drinks containing such essences as are most harmful to the public health, with a view to putting a stop to their manufacture, their distribution, and their sale; (2) that the study of the subject should be referred to the Committee on alcoholism; and (3) that any resolution which the Academy should pass after having heard the report of the Committee should be sent to the public authorities and to Parliament.

June 18th.

CANADA.

(*FROM OUR OWN CORRESPONDENT.*)

A Grave-robbing Case.

IN February last a third-year student of the medical faculty of Queen's University, Kingston, was arrested for having in his possession the body of a woman who had been recently buried. He was indicted on two charges: first that of having opened the grave, and secondly, for indecently interfering with a dead body. It was presumed that the body was for dissecting purposes, though this sort of material is not by any means a scarce article in the province of Ontario. On April 22nd he came up for trial before the judge of the county court of Peterborough, within which jurisdiction the alleged offence had been committed. On the first count the prosecution failed to prove that he had opened the grave, so the prisoner was acquitted on that charge. On the charge of indecently interfering with a dead body he was adjudged guilty and fined $200, or in default of the payment of the same to spend one year in gaol. For this the Ontario law provides five years in gaol or a fine at the discretion of the presiding judge. The previous good character of the defendant saved him from the heavier penalty of his act. This is said to be the first case of its kind to come before the Ontario courts and it is, therefore, interesting.

Honour for Dr. G. S. Ryerson.

The profession in Toronto and throughout Canada feel eminently gratified at the distinction accorded to Surgeon-Lieutenant-Colonel George Stirling Ryerson who has recently been made a Knight of Grace of the Order of St. John of Jerusalem in recognition of his distinguished and able services while Canadian Red Cross Commissioner to South Africa.

Canadian Nurses' Association.

During the session of the Dominion Parliament which has just come to a close one of the measures before the House sought to incorporate the Canadian Nurses' Association. Opposition developed against the Bill when it was first presented to the House Private Bills Committee. It was thought to discriminate against many of the smaller hospitals, including those in the West, and also against English and Welsh nurses who now carried on their profession in the Canadian North-West Territories. The Bill provided that a majority of the examining board should consist of physicians. The opposition, however, was so strong against the incorporation of the association that a motion to postpone it for six months was carried successfully. It is expected that the Bill will be re-introduced in the next session.

Sir William Hingston Honoured.

On May 6th there was celebrated at the Hôtel Dieu Hospital, Montreal, the fortieth anniversary of Sir William Hingston's connexion with this hospital as a surgeon. In this function his *confrères* on the staff, the sisters, the students, and the patients of the hospital all took part. The ceremonies began in the morning by the celebration of Mass in the chapel by Archbishop Bruchesi, after which the surgeons of the Hôtel Dieu presented Sir William Hingston with an address and an urn of great value. The medical students of Laval University were assembled in one of the operating-rooms, to which the party then repaired. Here another address was presented by the students to their esteemed professor, Lady Hingston at the same time being the recipient of a magnificent bouquet of choice flowers. By the sisters of the institution Sir William Hingston was presented with some relics which had been brought over from France over 200 years ago by Mdlle. Mance. In one of the large wards the patients were assembled, and in their behalf Dr. St. Jacques, the superintendent, addressed the distinguished surgeon, thanking him for his many years of professional labour and for his long service in connexion with the hospital. To all these tokens of appreciation he replied most feelingly in his usual happy and felicitous manner. Sir William Hingston has now reached his seventy-third year and is still actively engaged in the practice of his profession. His son (Dr. Donald Hingston) has been but recently appointed superintendent of the Hôtel Dieu Hospital in succession to Dr. St. Jacques who has resigned.

Bishop's Medical College, Montreal.

Recently a number of changes has been made in the teaching staff of this medical college and several new appointments have been made. Dr. F. W. Campbell will continue to act as dean and with him will be associated Dr. J. B. McCormell as vice-dean. In addition to his regular course of lectures in medicine and neurology Dr. Campbell will give a special course in insurance law, and the chair in medicine will be further assisted by Dr. J. W. Deeks, lecturer on internal medicine; Dr. A. J. Richer, specialist in pulmonary diseases; and Dr. W. Grant Stewart. Dr. Louis Laberge, health officer of Montreal, will take charge of the department of hygiene; while Dr. W. G. Reilly has been appointed to the chair of anatomy.

Western Hospital, Montreal.

The annual meeting of the Western Hospital, Montreal, was held in the latter part of May, when very satisfactory reports were received and adopted. The past year has been the most successful in the history of this hospital. In addition to lowering the debt from $10 000 to $8000 great improvements have been made in the buildings and new operating, instrument, and anæsthetic rooms have been fitted up with electricity and all the latest improvements. The report of the treasurer showed that the receipts had been $9381 91, and the expenditure $8944 79. The net assets of the hospital amounted to $99,458 The medical report, which was read by Dr. George Fisk, showed that in the outdoor department there had been 3500 consultations as compared with 3457 for the previous year. In the indoor department 396 patients were treated as compared with 380 for the previous year; there had been 24 deaths, or 6 per cent. If the eight who died within 48 hours of their admission were deducted the death-rate would only be 4 per cent. The average daily cost of all patients was 90 cents; of the public patients alone, 45 cents.

Montreal General Hospital.

Towards the end of May the governors of the Montreal General Hospital held their annual meeting, and, as usual, a deficit was reported. The General Hospital is now in arrears to the extent of some $25,000, having gone behind to the extent of $8000 within the past year. It has been decided to make a charge on and after June 1st of 10 cents a bottle for medicine in the outdoor departments for the first week and 5 cents thereafter. Dr. John McCrae was appointed resident assistant pathologist, and Dr. Von Eberts, the medical superintendent, has had his engagement extended for another year. His staff will consist of 10 house surgeons, with a lady superintendent and 70 nurses. Dr F. G. Finley, the secretary, reported that the expenditure had reached the sum of $84,280, and that the income had been only $75,994. The report of the medical work was as follows:—The total number of indoor patients treated to a conclusion was 2823, a decrease of one from the previous year. Of these, 175 remained from 1899-1900, and 2822 were admitted during the year. In the hospital at the end of the year there remained 154 patients. There were discharged 2573 and there died in the hospital 250. Of these 250 deaths 105 occurred within three days of the admission of the patients. The death-rate, therefore, had been 8 85 per cent., or excluding the 105 patients dying within three days of their admission, 5 12 per cent. The average cost per patient per day had been $1.37 as compared with $1 35 for the preceding 12 months.

June 1st.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Institute for Medical Research in the United States.

THE important announcement has just been made public that Mr. John D. Rockefeller has given $200,000 (£40,000) to found an institution to be called "The Rockefeller Institution for Medical Research." This sum, it is said, is only to be regarded as a preliminary gift, not intended as an endowment, but to be expended as the need may arise. A building will not be erected at any rate for some considerable time; work, however, will be commenced at once The first investigations undertaken by those connected with the institution will be to cooperate with the New York Board of Health in studying the milk supply and the contaminated article as a source of danger. In the autumn work strictly concerned with original research will be commenced. This work is to be carried on by the most prominent scientific men connected with the leading medical schools of the country, including Harvard, Johns Hopkins, University of Michigan, Columbia, and several others. The Board of the Rockefeller Institute will direct and control these investigations. The directors of the institute comprise the following well-known names:—President, Dr. W. H. Welch, professor of pathology, Johns Hopkins University; vice-president, Dr. T. Mitchell Prudden, professor of pathology at Columbia University; secretary, Dr. Emmett Holt, clinical professor of diseases of children at Columbia University; and treasurer, Dr. C A. Herter, professor of pathological chemistry at the New York University and Bellevue Medical College. The other directors are Dr. Theobald Smith, professor of comparative pathology at Harvard; Dr. H. M. Biggs, director of laboratories, New York Board of Health; and Dr. Simon Flexner, professor of pathology, University of Pennsylvania. These gentlemen have advised Mr. Rockefeller as to the best methods of starting the institution and have issued the following statement regarding it: "Through the generosity of Mr John D. Rockefeller an institution has been established to be known as the Rockefeller Institute for Medical Research. The purpose of the foundation, as the name implies, is to furnish facilities for original investigation, particularly in such problems in medicine and hygiene as have practical bearing upon the prevention and treatment of disease. The home of the institute will be in New York city, although, as will be seen from the make-up of the board of directors, medical men from neighbouring cities will share in its management It is not intended to build at once, but with the funds placed at the disposal of the board work will be begun under its direction in several different places The immediate aims of the board are twofold. First, to shape the lines of work along which the institute may wisely develop, both in contributing to knowledge and in the application of existing knowledge to humane ends. When this is done it is felt that such local habitation as the future of the institute shall require can be more wisely planned. It is understood that the buildings and equipment adequate to the wide scope of the institute and worthy of the humanitarian and scientific aims of the foundation will in due time receive consideration. The potential value of an institution of this kind and under such auspices [illegible] science and in the interests of humanity can hardl [illegible] are three features in regard to t [illegible] excellent augury of its success. These are that undoubtedly money will not be lacking; that the board of directors is composed of some of the foremost scientific men of the United States, whose presence on the board alone should be a guarantee that the work will be carried out thoroughly; and lastly, that the work has been begun in the right spirit. There has been no loud flourish of trumpets, but it has been wisely determined to proceed upon conservative lines, and when after a sufficient trial the directors have convinced themselves of the most efficient methods of developing the institution to put these methods into practice. Original research has long lagged in the United States, but it would appear that Mr. Rockefeller's gift may mark a new epoch in this branch of science.

Novel Sanatorium in Chicago.

A sanatorium is about to be constructed in Chicago upon a wholly new principle. The medical men in that go-ahead city have for some time been dissatisfied with the means of accommodation which Chicago offers to patients from a distance who are desirous of placing themselves under the charge of practitioners there. There are many objections both on the part of physicians and patients to the large general hospitals and it seems that there are no private hospitals in Chicago. In consequence of this condition of affairs those who wish to be treated in the city are compelled to betake themselves to large hotels or to apartments. The big hotels are too noisy and apartments have, as a rule. some drawbacks. Besides, friends or relatives of the sick have not always been able to secure quarters near the sick bed. To remedy this unfortunate situation it is stated that five physicians and surgeons of Chicago are preparing to build a large private hotel and sanatorium to cost $400,000 (£80,000). This combination of hotel and sanatorium is, it may be imagined, the first time that such a plan has been put into execution, and it is yet another tribute to the practical versatility of the Western American's brain.

Montefiore Sanatorium for Consumptives.

On May 30th a country sanatorium for consumptives in connexion with the Montefiore Home in New York city, a Jewish but non-sectarian institution, was formally opened. The sanatorium is situated at Bedford, a few miles from New York, and is constructed upon the most approved model for such institutions, while the treatment followed therein will be in accordance with the most modern methods. Vice-president Roosevelt and the Bishop of New York were the principal guests of the opening ceremony, each of whom made eloquent speeches. Some of the bishop's remarks were particularly to the point. He said in effect, "What are the causes of the misery represented here? It exists under the conditions under which men earn their bread. They pass their sleeping hours in homes that are unfit for human beings. Better the condition of the wage-earner and the home where he lives and you will have begun to deal with the great problem of civilisation. Then you will find a solution. Follow the trend of consumption where it was bred and disseminated. An ounce of prevention will be worth many pounds of cure." It was stated that the Montefiore homes in New York and Bedford give shelter and medical aid to 450 patients, to which the directors expect to add accommodation for 150 more unfortunates in the future. It was also stated that the two charities represent nearly a million dollars (£200,000) of capital and that the debt is only $50,000 (£10,000).

June 10th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

The Royal Visit.

THE visit of their Royal Highnesses the Duke and Duchess of Cornwall to Australia to open the first Parliament of the new Commonwealth is of all-absorbing interest just now, to the exclusion of all other affairs. The work of the ordinary medical practitioner in Melbourne is greatly interfered with owing to the stoppage of vehicular traffic in the streets and the enormous crowds that throng them on foot. Among the recipients of honours in connexion with the Royal visit is Dr. James Graham, mayor of Sydney, who is to be knighted. His career has already been referred to in these columns when announcing his election as mayor.

Prince Alfred Hospital, Sydney.

Reference has previously been made to the necessity for enlarging the Prince Alfred Hospital, and it has now been determined to erect new pavilions as a memorial to Queen Victoria. A public meeting was recently held to appeal to the public for subscriptions. The amount required over and above the amount given by the Government is £15,000, and £1600 was promised at the meeting. Dr. Charles Mackellar contributed £1000, with the stipulation that a ward should be provided for the treatment of soldiers and named in memory of his son who was killed in action in South Africa. The foundation-stone of the new buildings will be laid by the Duke of Cornwall.

Children's Hospital, Sydney.

The annual meeting of the Sydney Hospital for Sick Children was held on April 20th. The annual report showed that during the year 1900 there were admitted to the general hospital 421 patients, making, with the 42 remaining from the previous year, a total of 463. Of this number 284 patients were discharged cured, 68 were relieved, 25 were discharged unrelieved, 45 died, and on Dec. 31st there were 41 remaining in the institution. In the diphtheria cottage 117 were admitted, making, with nine remaining from the previous year, a total of 126 under treatment. Of these 112 were discharged cured, nine died, and five remained under treatment. In connexion with out-patients there were 9980 attendances of 2245 patients. In comparison with the statistics of the previous year these returns show a moderate increase. The death-rate in the general hospital was 10·6 per cent., as compared with 10·8 in the previous year. In the diphtheria cottage the death-rate was 7·43 per cent., as compared with 6·6 per cent. in the previous year. The out-patients' department showed an increase on last year of 544 attendances, but a decrease in the number of patients. The President (Mr. Justice Stephen) alluded to the pressing necessity for a new building and explained the difficulties about the site, to which reference was recently made in these columns. The medical report stated that owing to the want of accommodation in the present buildings 60 or 70 children with their parents or guardians were huddled together in the waiting hall, often some of them suffering from infectious diseases. One death during the year could be directly attributed to the insanitary condition of the building. It was also pointed out that a convalescent home in connexion with the hospital was greatly needed.

Sydney Hospital.

At the last monthly meeting of the board of directors of the Sydney Hospital Dr. W. Carnac Wilkinson resigned his position on the staff, as he had been appointed lecturer on medicine at the Sydney University. It was decided to thank Dr. Wilkinson for his past services. The following were re-appointed to their respective positions on the medical and surgical staff for a further period of four years:—Dr. T. Dixson, Dr. Fiaschi, Dr. W. H. Crago, Dr. J. McD. Gill, and Dr. Roland J. Pope. Dr. P. R. Kenna was appointed assistant aural surgeon.

St. Vincent's Hospital, Melbourne.

The annual meeting of St. Vincent's Hospital, Melbourne, was held on May 1st and was attended by an audience which completely filled the town hall and which expressed the most enthusiastic appreciation of the good work done by the hospital, £1000 being subscribed towards the building fund at the meeting. The number of patients treated during the year exceeded 10,000, an increase of over 1000 on the previous year. Reference was made to the exceptionally economic manner in which the institution was managed, the amount for wages being relatively insignificant.

Melbourne Hospital.

During the past year a little difficulty has arisen at the Melbourne Hospital with reference to the status and powers of the resident medical officers. On the election of the new resident staff for the present year they were called before the committee with reference to those difficulties. The newly appointed staff asked for precise information as to their authority with regard to ordering visitors, and especially ministers of religion, out of the hospital wards, and as to the arrangements to be made for dining. On the committee explaining their proposals the staff declined to accept them and resigned in a body. Subsequently a compromise was arranged and the staff resumed their respective duties. The position of resident medical officer has steadily declined in status during the last 20 years from a well-paid and responsible post to one with no salary and very little responsibility, little better than that of a resident dressership, and, indeed, apparently regarded as such by the committee who in the recent differences contemptuously referred to the members of the staff as the "students." The actual students also have a complaint against the committee for exacting extra fees for hospital attendance and also against the honorary staff for having, as is alleged, increased the fees charged for clinical instruction. The mode of collecting the fees has been altered and the scale revised. Formerly the method was somewhat complicated. Students paid certain fees to the University for clinical lectures and tutorial instruction to be given by members of the staff at the Melbourne Hospital and the Prince Alfred Hospital, and the University paid a certain definite sum annually to the respective staffs irrespectively of the amount received from the students, who also paid certain fees for hospital attendance to the staff direct and to the hospital. Last year the University council decided that all fees for clinical instruction should be paid direct by the students to the staff and the University would have nothing to do with the matter. The staff accordingly drew up a scale of fees, calculated on the amounts previously received from the University and the number of students receiving clinical instruction. At the same time the hospital committee increased the amount of fees payable to the hospital. The total increase in hospital fees for the course under the present arrangement is stated to be £36 and the total amount of fees of all kinds paid for the medical course is £190. The total fees at Sydney are stated to be £170 and at Adelaide £184, and it is maintained that the higher rate at Melbourne will compel students to go to other schools.

Sydney University.

Dr. E. J. Jenkins has resigned the position of medical tutor at the Sydney University and Dr. G. E. Rennie has been appointed to the vacancy.

Sir T. N. Fitz-Gerald, K.C.B.

The profession in Australia are very pleased at the honour of Knight Commander of the Bath conferred on Sir T. N. Fitz-Gerald of Melbourne for his services in the South African campaign as consulting surgeon. The recipient was specially mentioned in Lord Roberts's despatches.

Death of Dr. James Eddington Jefferies.

Much regret has been felt at the news of the death of Dr. Eddington Jefferies, late of Newtown, New South Wales, where he had practised for over 14 years. Dr. Jefferies was held in high regard both for his professional skill and his personal qualities. He was a well-known connoisseur in art and had a fine collection of pictures and china. His father is the Rev. Dr. Jefferies, formerly an eminent clergyman in Sydney, and now of Adelaide.

May 10th.

Obituary.

EDMUND BOURJONVAL DE LA CHEROIS, M.D. DUB.

DR E. B. DE LA CHEROIS met with his death as the result of a carriage accident at Sandford, Somerset, where he was on a visit to his brother. The deceased, after a course of study at Trinity College, Dublin, took the M.D. degree in 1890. Previously to his college career he studied at the Armagh School. The death of Dr. De la Cherois is much felt amongst the large circle of friends and acquaintances which he had formed in a practice extending over some eight years at Brighton. One writes of him: "He was always to be depended on to give a helping hand in all cases. His loss is great and he will not readily be replaced from a professional point of view. As a staunch friend and reliable colleague he had no equal." Dr. De la Cherois leaves a widow.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Langenbuch, Director of the Lazarus Hospital, Berlin. His published papers chiefly dealt with nerve-stretching and with the surgery of the gall-bladder and liver.—Dr. Hermann Baur of Giessen. He had published monographs on Dislocations of the Hip and on Congenital Absence of the Rectum.

Medical News.

UNIVERSITY OF CAMBRIDGE.—At a congregation on June 13th Mr. G. V. Bull and Mr. J. L. Lock, Gonville and Caius, were admitted to the degrees of M.B. and B C.—At the congregation on June 18th the following medical degrees were conferred:—

M.D.—E. W. Ormerod, Trinity; C. F. Lillie, St. John's; and J. R. Charles, Caius.

M.B.—A. R. M. Brenan, M. Horne,* C. Killick,* A. E. Naish,* G. H. Orton, and G. A. C. Shipman, Trinity; F. E. Murray,* St. John's; G. E. Orme,* Caius, A. C. Pearson,* Sidney; and W. N. Heard, Downing.

B.C.—A. G. Wilson and J. S. Clarke, Caius; and those marked * above.

At the examinations for medical and surgical degrees, Easter term, the following candidates were successful in the subjects indicated:—

FIRST EXAMINATION.

Part I. Chemistry and Physics.—H. T. Ashby and F. A. Barker, Emmanuel; G. B. Bartlett and A. E. Bonny, Sidney Sussex; L. B. Cane, King's, C. Cassidy, Sidney Sussex; A. de C. C. Ch[illegible] G. [illegible] St. [illegible] A. [illegible] Jor [illegible] Gas[illegible] Goodhart and W. B. Gourlay, Trinity; A. C. Grant, King's; C. W. Greene, Emmanuel; R. E. V. Hale, B A., Caius; H. A. Hancock, non-collegiate; G. A. M Heydon, Christ's; E B. Hinde, Emmanuel; R. W. Ironside, Pembroke; R. S Jenkins, St. John's; C. N. Le Brocq, B A., Pembroke; R. McC. Linnell and W. B Marshall, St. John's; J. H B. Martin, Emmanuel; R. M. Miller, B A., Clare; A. W. Moore, Emmanuel; W. P. Morgan, B.A., Clare; F. H. C. Newman, Jesus; E. V. Culton, Christ's, A. S. M. Palmer, B A., *Jesus; D. G. Pearson, Pembroke; J. H. Pratt, Trinity;* R. S. Purkis, H. Selwyn; A. L. Singer, King's; K. S. Singh, B A., [illegible] Pembroke, [illegible] Ellison, Caius; [illegible] Elphinstone, Trinity; A. C. J Elwin, B A., Corpus Christi, M. F. Emrys Jones, Caius; [illegible] Trinity; G. B. Fleming, [illegible] lare; J. C. Fox, Trinity; [illegible] nmanuel; J. W. Grice, [illegible] lele, Emmanuel; A. L. [illegible] ius; G. A. M. Heydon, [illegible] B Hinde, Emmanuel; [illegible] rinity; C. N. Le Brocq, B.A., Pembrok[illegible] St. John's; S. [illegible] Marshall, St. [illegible] Trinity; W. [illegible] Jesus; A. H. [illegible] Palmer, B A., [illegible] Trinity; C [illegible] B A., and C. [illegible] G. L. Smith, [illegible] Downing, R. [illegible] St. John's; A. [illegible] P. C. West, B. [illegible] Pembroke; and [illegible], Christ's.

SECOND EXAMINATION.

Part I. Pharmaceutical Chemistry.—R. L. Barwick, B.A., Christ's; H. Beckton, M A., Clare; W. T. Briscoe, B A., H. Selwyn, H. A. Browning, St. John's, H. Cutler, B A., Clare; G. B. Davis, M A., Corpus Christi; G H. Drew, Christ's; A. H. Falkner, B A., Peterhouse; T. J. Faulder, B.A., Clare; H. J. Gauvain, St. John's; H. U. Gould, B.A., Trinity; G. F. Greenwood, Sidney Sussex, M. Gundry, St. John's; G. P. D Hawker, B.A., Caius; W. H. Hodson, Christ's; P. P. Laidlaw, J. W. Linnell and S. G. Macdonald, St. John's; J. Mellanby, B A., Emmanuel; H. W. Moxon and S. B. Priston, St. John's, J N. Robins, B.A., Christ's; H F. Skinner, Corpus Christi; J. M. Smith, Christ's; C. M. Stevenson, St. John's, B S. Taylor, M.A., Clare, C. B. Ticehurst, St. John's; B. Wallis, Trinity; N. Wilson, B A., Pembroke; H. P. Wiltshire, St. John's; J. L. Wood, Trinity; and R. F. Young, Christ's.

Part II. Human Anatomy and Physiology.—C. E. A. Armitage, B.A., Emmanuel; L. J. Austin, Sidney Sussex; H. M. Ariss, Downing; J. R. Beale and H. Beckton, M.A., Clare; G. F. Bird, B A., and H. J. D Birkett, B A., Trinity; E. M. Brown, B A., Pembroke; F. M. Bulley, B.A., Emmanuel; S. H. Clarke, B.A., Caius; A. W. D Coventon, B A., and W. L. Cripps, B.A., Trinity; A. H. Crossley, B A., Clare, S. H. Daukes, B.A., Caius; A. P. Day, B A., Christ's, L. H. Frankenburg, B A., Emmanuel; R. B. French, King's; F M. Gardner-Medwin, B A., M. F. Grant, B.A., and Everard Harrison, B A., Trinity; R. N. Hart, B A., Sidney Sussex, W. R. Higgins, B.A., Caius; H. F. Horne, B.A., King's; J. H. Howitt, M.A., St. John's; W. K Hume, B.A., Pembroke; F. A. G. Jeans, B.A., St. John's; A. E. Kerr, B.A., Christ's;

F. F. Leighton, B.A., St. John's; E. Lloyd, Emmanuel; H. F. Marris, B.A., Caius; W. L Murphy, B.A., St. John's; J. A. A. Orlebar, Magdalene; C. H W. Page, B A., Corpus Christi; F. W. M. Palmer, B A., Jesus; W. E. Paramore, B A., St. John's; N. C. Patrick, B.A., Christ's; M. C. M. Pitkin, B.A., non-collegiate; R. N. Poignand, B.A, Caius; R. Puttock, B A, Emmanuel; G. L. Ranking, B A, Pembroke; W. H. Rayner, Trinity; C. T. Y. Robson, M A., O L. Scarborough, B.A, and L. Shingleton-Smith, St. John's; E. Slack, Inc, Pembroke; B. H. Steward, B.A, Jesus; J. H. Trench, Trinity; A. C. Warren, B.A., Emmanuel; H. W. Wiltshire, B.A, Clare; F. L. Woods, B A., Caius; R. A. Worthington, B.A., *Clare.*

The Raymond Horton-Smith *Prize for the best* M.D thesis of the year has been awarded to W. L. Brown, M.A., M.D., of St. John's; *proxime accessit*, J. C. Muir, M.A., M.D., of Emmanuel.

Vaccination at Plymouth.—The vaccination returns for 1899, which have just been issued, show that during the year 3010 births were registered in the borough of Plymouth; of these 1681 were vaccinated, 11 were insusceptible, 491 died within 12 months unvaccinated, 13 were exempted on conscientious grounds, 86 cases were medically postponed, 33 had removed from the town, 284 could not be traced, and 411 were unvaccinated.

Seaside Camp for Working Boys.—An appeal signed by the Bishop of London, the Rev. Prebendary Ingram, Mr. E A. Ford, and Mr. F. Abel Bloxam, has been issued on behalf of the Seaside Camp for London Working Boys, which is in need of funds. This scheme of helping the working boys of London to secure a much-needed holiday has our hearty approval and we trust that the necessary funds will be at once forthcoming. The boys contribute towards their expenses, but it is utterly out of their power to provide all that is needed in order that they may receive a holiday.

Memorial to the late Mr. G. J. Symons, F.R.S.—A meeting of the subscribers to the Symons Memorial Fund was held last week in the rooms of the Royal Meteorological Society, 70, Victoria-street, Westminster. The treasurer, Dr. C. Theodore Williams, presided. The Executive Committee reported that the proposal that the memorial to the late Mr. G. J. Symons, F R S., the distinguished meteorologist and founder of the British Rainfall Organisation, should take the form of a gold medal had been approved and that the sum of £713 14*s.* 7*d.* had been subscribed for that purpose.

Royal College of Surgeons in Ireland: Barker Anatomical *Prize for 1902.*—A prize of £21 is offered for competition and is open to any student whose name is on the anatomical class list of any school in the United Kingdom. The preparations entered must be placed in charge of the curator before March 31st, 1902. The prize is offered for a dissection *showing the* distribution in the head and neck of the seventh, eighth, ninth, tenth, eleventh, and twelfth cranial nerves. The conditions under which the competition is to be carried out are as follows:—1. The preparation must be sent to the curator of the museums, Royal College of *Surgeons, each being marked* with a fictitious signature, and accompanied by a sealed envelope bearing outside the same *signature, and* containing within the full name of the competitor and a declaration to the effect that the work of the preparation has been carried out by himself. The printed form necessary *for this declaration* can be obtained on application to the curator. 2. The dissections are to be mounted in vessels fitted with glass covers, but the covers must not be sealed down. Earthenware basins and plaster-of-Paris *settings are* not compulsory if the specimens can be better displayed and *preserved by* other means. 3. No prize will be awarded unless sufficient merit be shown, 70 per cent. of the total marks being the minimum. The following *is the scale of marks*:—(*a*) for the merit of dissection, 60; (*b*) for excellence of setting, 20; and (*c*) for originality, 20; total number of marks, 100. Those dissections for which prizes are awarded *become* the property of the College. 4. Those competitors who enter dissections for which prizes are not awarded *but which show* sufficient merit may be refunded such amount of the cost of production as the examiners deem fit. 5. The cost and risks of transport must be borne by the student. The College will not be responsible for any damage that the *preparations* may sustain; but those of unsuccessful competitors residing at a distance will be carefully re-packed and handed to the carriers for delivery at such address as may be specified by the student.

The Pope has conferred the Cross "Pro Ecclesia et Pontifice" upon Mr. Francis Murphy, L.R.C.P., L.R.C.S. Edin., of *Tottenham, who, as medical officer,* was one of the gentlemen who took an active part in the great Jubilee *Pilgrimage* to Rome last year.

Hospital Memorial Bed.—The trustees of the estate of the late Mr. Frederick Rothwell have sent a donation of £1000 to the British Home and Hospital for Incurables, Streatham, S.W., to endow a "Rothwell" memorial bed in that institution.

The directors of the Great Eastern Railway Company have appointed Mr. William Rose, M.B. Lond., F.R C.S. Eng., senior surgeon to King's College Hospital, &c., consulting surgeon to the Great Eastern Railway, in the place of the late Mr. Thomas Bond, F.R.C.S. Eng.

Isolation Hospital for Llandaff and Dinas Powis.—An inspector of the Local Government Board held an inquiry in Cardiff on June 14th into the application of the Llandaff and Dinas Powis Rural District Council for sanction to borrow £8700 for the erection of an infectious diseases hospital.

Devizes Hospital.—The twenty-ninth annual meeting *of the subscribers to this institution* was held on June 13th. The medical report stated that 124 in-patients had been admitted during the year as compared with 118 in 1899, the average stay in each case being 34·8 days. The total weekly cost of each patient was 15*s.* 3*d.*, compared with 17*s.* in the previous year. The financial statement showed that the income amounted to £700 and the expenditure to £768.

A Plague of Rats.—At the Isle of Wight County Court on June 8th a farmer applied for a perpetual injunction to restrain two farmers, his neighbours, from continuing to allow the deposit on their farm in a large heap of the Newport town refuse, on the ground that it enticed and harboured thousands of rats, which had to a large extent destroyed plaintiff's crops on adjacent land. £50 damages were claimed. The case for the plaintiff was that the plague of rats did not commence till after defendants allowed the deposit and accumulation—*which had been going on for* two years—of nine loads per day of town refuse on their land close to plaintiff's property. The heap was soon swarming with rats, which overran plaintiff's land, eating nearly half of a four-acre field of oats, biting off some 4000 cabbage plants, hollowing out *a quantity of turnips* and mangels and honey-combing plaintiff's bank and filling a ditch. After evidence had been given his honour said that the defendants were not entitled to accumulate so much refuse beyond the ordinary requirements of their farm for agricultural purposes, and as the harbouring of rats was the consequence they were liable for the damage. He gave judgment for £35 damages, and granted an injunction, the latter being suspended for three weeks to give defendants time to remove the refuse.

Freemasonry.—*The Rahere Lodge.*—The installation meeting of the Rahere Lodge, No. 2546, took place in the great hall of St. Bartholomew's Hospital (kindly lent for the occasion by the treasurer and almoners) on June 11th. Mr. Sydney R. Scott, M.B. Lond., was initiated into Freemasonry and Bros. Waring, Cross, and Robinson were elected members of the Standing Committee. W. Bro. Gripper, M.B, the outgoing W.M., installed his successor W. Bro. Phineas S. Abraham, M.D., as W.M. for the ensuing year. W. Bro. Abraham then invested as his officers Bros. W. Gripper, G. *H.* R. *Holden*, E. Clarke, Rev. Sir Borradaile Savory, Bart., Clement Godson, D'Arcy Power, C. B. Lockwood, Haig Brodie, G. H. Gilbertson, Howard Marsh, A. G. R. Foulerton, G. H. Robinson, Mus. Bac., H. D. Lauchlan, M. J. Anderson, J. Valérie, J. Herbert Menzies, and P. F. Madden. A Past Master's jewel was unanimously awarded to Bro. Gripper for his services to the Lodge during his year of office, and presented by Bro. Clement Godson. Bro. Gripper, in reply, expressed his sincere thanks. A grant of 20 guineas was made to the British Medical Benevolent Fund. The report of the Audit Committee was received and adopted. It showed that the amount given in charity during the past year amounted to £69 6*s.* The banquet was held at Frascati's Restaurant and was attended by 86 brethren. A most enjoyable evening was spent, an excellent musical entertainment being provided by Bros. Courtice Pounds, Franklin Clive, W. L. Barrett, and others.

A MEETING of the Cambridge Medical Society was held on June 7th, Dr. J. Griffiths, the President, being in the chair. Dr. Nuttall read a paper on the Formation of Specific Anti-bodies in Blood, following upon Treatment with the Sera of Different Animals, together with their use in Legal Medicine. Mr. Young related two cases of Appendicitis followed by pelvic abscess in women past middle life, both of which made a good recovery without surgical interference, in one case the pus discharging through the bladder and the other through the vagina.

NORTH LONDON HOSPITAL FOR CONSUMPTION.—Mr. H. H. Asquith, K C., M.P., presided at a festival dinner in aid of the funds of the North London Hospital for Consumption, held at the Hotel Cecil on June 14th. In proposing the toast of the evening the Chairman earnestly appealed for funds to enable the hospital, which had been the pioneer of the open-air treatment of pulmonary tuberculosis, to make additional accommodation which was absolutely necessary to carry on the work of the institution. £6000 have been promised towards the building fund and donations have been received amounting to £2486.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY.—The Earl of Dartmouth presided at the Hotel Cecil on June 12th at a festival banquet in aid of the general funds of the Miller Hospital and Royal Kent Dispensary. In proposing the toast of the evening the chairman said that the hospital and dispensary ministered to a population of over 315,000, the majority of whom were dependent on charitable institutions in times of sickness. The institution was much in need of assistance, and if they were to provide in any adequate manner for those seeking admission the number of beds should be doubled. An additional £800 a year was needed for maintenance. The secretary announced during the evening subscriptions and donations amounting to £500.

KING'S COLLEGE HOSPITAL.—The annual festival dinner of this hospital was held in the hall of the Clothworkers' Company, Mincing-lane, E.C., on June 12th, when the Archbishop of Canterbury presided. The Primate, in proposing success to King's College Hospital, said that they must all wish prosperity to an institution where the health and comfort of human beings and the healing of disease were being studied and provided for. The century now past, especially the latter half, had witnessed greater progress in the science of medicine than any previous period, and King's College had worthily held its place in that progress. He referred to Lord Lister who had been so closely connected with that institution. King's College Hospital had a strong claim on all who needed or valued medical assistance, and it deserved the most liberal support. Donations amounting to over £2100 were announced.

Parliamentary Intelligence.

HOUSE OF COMMONS.

THURSDAY, JUNE 13TH

Medical Officers of Health in Scotland.

Mr. WEIR asked the Lord Advocate, as representing the [illegible] Scotland, whether, [illegible] health was require[illegible] would explain how [illegible] for Scotland only [illegible] ADVOCATE replied [illegible] health in the var[illegible] employed do not possess the qualification referred to by the hon Member because it was unnecessary in the case of appointments made [illegible]

Registrars of Births and Deaths.

Mr. GRANT LAWSON, Parliamentary Secretary to the Local Government Board, introduced a Bill to make uniform the law with regard to the [illegible] [illegible]strars of births and deaths. [illegible] s the boards of guardians [illegible] unions it is made by the [illegible] establish a uniform system [illegible]

FRIDAY, JUNE 14th.

A Standard for Milk.

Mr. HANBURY, President of the Board of Agric[illegible] that after carefully considering the evidence submitt[illegible] mental committee and their reports, he proposed [illegible] under which, for the purposes of the Sale of Food [illegible] as not genuine unless it con[illegible]ent. of non fatty milk solids. [illegible] pared, and he proposed that [illegible]

Enteric Fever among the Troops.

Sir WALTER FOSTER asked the Secretary of State for War whether he could state the registered accommodation of the *Mongolian* for troops and how many men she brought home from South Africa on her last voyage, whether there were seven deaths on board, and what was [illegible] for troops was [illegible] Yeomanry. There [illegible] miscellaneous diseases and other trivial cases during the voyage; 7 deaths occurred, all from enteric fever.

Medical Officers of Health in Scotland.

Mr. CATHCART WASON asked the Lord Advocate if, in the case of sparsely populated districts, [illegible] Islands of Scotland, the Government [illegible]n might be appointed officers of healt[illegible] sanitary science, public health, and [illegible]DVOCATE replied that the matter was entirely regulated by statute and the Government had no power in the matter.

Poisoned by Tinned Meat.

Mr. PARKER SMITH asked the Secretary of State for War whether he was aware that a number of men of the York and Lancaster Regiment in Fermoy barracks were poisoned on Saturday, June 8th, by eating tinned meat; whether he could state whether any deaths had occurred; from what source the meat was obtained; and whether a full inquiry would be made into the circumstances.—Lord STANLEY replied: Some men of the York and Lancaster Regiment were poisoned by partaking of a tin of beef This tin was purchased by the men from the canteen and was not part of the Government ration. The men are all practically well now. The commanding officer has full discretion in regard to canteen supplies and no inquiry is necessary.

MONDAY, JUNE 17TH.

State of the Concentration Camps in South Africa.

There was a long debate at this sitting of the House on the condition as regards sanitation and medical provision of the camps established [illegible] for the reception of Boer refugees. [illegible] for War, gave an account of the [illegible]rd to some of them statistics as to [illegible] the Johannesburg camp he stated [illegible]01, the deaths were six men, six [illegible]e said, were accounted for by an epidemic of measles There was an experienced medical officer in [illegible] to the sanitation of the camps and the treatment of their inmates, but Mr. BRODRICK said nothing about this suggestion.

The New Factory Legislation.

The Factory and Workshop Acts Amendment Bill was read a second time and referred to the Grand Committee on Trade.

TUESDAY, JUNE 18TH.

Proposed Amendment of the Medical Acts.

Sir RICHARD JEBB introduced the Bill formulated by the General Medical Council to amend the Medical Acts 1858 to 1886. It is safe to say that unless the Bill is practically unopposed it has no chance of passing into law during the present session.

Preservatives and Colouring Matters in Food.

Mr. WALTER LONG announced that the Departmental Committee on the use of preservatives and colouring matters in food have completed their inquiry and are now considering their report which he hoped would be presented during the present Parliamentary session.

Phthisis in the Post-office Service.

Sir WALTER FOSTER asked the Secretary to the Treasury, as representing the Postmaster-General, whether, in view of the scientific interest attaching to comparative statistics of mortality from phthisis, [illegible] master-General.

Strange Conduct of an Irish Medical Man.

Mr. WILLIAM JOHNSTON asked the Chief Secretary to the Lord [illegible] whether his attention had been called to the [illegible] O'Leary, C.C., at the Limerick petty sessions [illegible]t, on a charge of using threatening language

Notes, Short Comments, and Answers to Correspondents.

AN IMPORTANT POINT OF LAW.

AT the Folkestone County Court on Tuesday, before Sir William L. Selfe, judge, a case was heard in which a boarding-house keeper, named Nyren, sought to recover damages from a gentleman named Thomas, residing in Carmarthenshire, under the following circumstances. The defendant's daughter was at a boarding school at Folkestone and was taken ill. Arrangements were made for her removal to the house of the plaintiff, she being assured by the medical man and the schoolmistress that there was nothing infectious in the illness. Next day, however, typhoid fever was diagnosed and ultimately the child died in the boarding-house. There was an agreement entered into by the father as to the amount to be paid for rent of the apartments, &c., but he objected then to the payment of compensation The plaintiff sought to recover in all £32 16*s*, which included charges for disinfecting and for damage to linen and other articles, and also £16 for loss of business, a boarder who would have stayed for six weeks leaving her in consequence of the illness, and two ladies who would have taken apartments going elsewhere. The facts of the case were practically admitted, but the defendant's solicitor asked His Honour to take a note of the objection that the defendant was not legally bound to pay compensation inasmuch as plaintiff was running a risk in taking a patient into her house with a disease the nature of which she did not know, and should the defendant be legally bound to pay compensation the rent he was paying should be taken into consideration. His Honour, in giving judgment, said it was an important case, and one which would probably go further. The same point had been raised once before in his court at Folkestone, in a case in which the plaintiffs were hotel-keepers, but in that case he had no difficulty in dealing with it, because it was shown to his satisfaction that there had been no loss of business. (The case was reported in THE LANCET at the time) In the present case, however, it had been clearly shown that the plaintiff had lost business, and therefore he gave judgment for the £16, but disallowed sundry small items which he thought the defendant ought not to be called on to pay.

"HYPERIDROSIS. SUGGESTIONS WANTED."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of June 1st, p 1582, "Veldt" asks for some suggestion on the treatment of sweating on the least exertion. I refer him to the experiments of Dr. Ringer and Dr. Murrell with pilocarpine in small doses—viz., the twentieth of a grain The sweating in such cases is usually associated with nerve depression. Tabloids of the nitrate of pilocarpine are obtainable from Messrs Burroughs, Wellcome, and Co.

I am, Sirs, yours faithfully,

June 13th, 1901. M.D. ERLANG.

"THE SWALLOWING OF FOREIGN BODIES."

To the Editors of THE LANCET.

SIRS,—In your remarks on "The Swallowing of Foreign *Bodies*" in THE LANCET of June 15th, p. 1738, you suggest that diligent search may frequently discover the missing article about the house. The other extreme is, however, occasionally met with, as in my experience last Christmas An undemonstrative child, about four *years old*, was brought to me with a history of having had in her hand a halfpenny which, a moment later, was nowhere to be found. Coaxes, threats, and emetics were powerless to explain the disappearence and I had perforce to recommend a liberal diet of soft pappy food, with an assurance that the coin would become invested in it and pass safely *A month later* the watchful mother recovered from the motions *two* halfpennies—a very gratifying return in these hard times, panning out at the very respectable figure of 100 per cent. *per anum.* The father, a smart business man, regrets now that the child was not given a sovereign to play with!

I am, Sirs, yours faithfully,

West Bridgford, Notts, June 17th, 1901. H E BELCHER.

MEDICAL TESTIMONIALS TO QUACKERY.

A CORRESPONDENT sends us a cutting from the *Lancaster Observer* of June 7th containing a flaming advertisement of the skill and knowledge of one Siemms who describes himself as a "Specialist in Skin Disorders of the Feet and Hands, Surgeon Chiropodist." Mr. Siemms further informs his readers that he operates on all diseases *of the feet and hands* His fees are from 2*s*. 6*d*., but fungoid growths and varicose veins will be charged extra. Mr. Siemms quotes testimonials from four medical men. The first named, who according to the Medical Directory is M D., M.Ch. of the Royal University of Ireland, testifies to Mr. *Siemms's* skill in dealing with "several corns on the feet *of one of* my patients" The second testimonial comes *from* a M.D of London, with whose corns Mr. Siemms dealt "in a highly skilful and painless manner." The third testimonial is from a M.R.C.S, L.R.C.P., London, who considers that anyone may consult Mr. Seimms with confidence. Testimonial number four is from a M B, F R.C.S. Edin., who says that Mr. Siemms removed two corns from a patient of his to her entire satisfaction." Truly, a sour correspondent says, the medical men of Lancaster and district seem to be of a peculiarly trustful and unsophisticated nature. It is bad enough to give testimonials to a mere corn-cutter, but when it comes to medical men backing up an advertiser who has presumably had no medical education whatever and has no qualifications, who gives himself out as operating on all diseases of the feet and hands, it is time to protest Perhaps the medical men to whom we refer will offer some explanation of their remarkable conduct. At present we withhold their names.

A WARNING.

To the Editors of THE LANCET.

SIRS,—May I warn your London readers against a plausible American gentleman who calls and presents a card "Clarence Perry, M.D." He has a charming manner and says that he knows friends of yours in America who begged him specially to call and to present to you their respects. He calls again the next day and on a plea of urgency asks for a loan and offers to leave his watch or his ring as a guarantee of good faith. When he fails to come back to redeem the article it will be found that he has borrowed about twice its value. The police tell me that they cannot prosecute and I therefore venture thus to warn those who might otherwise be duped.

I am, Sirs, yours faithfully,

Harley-street, W., June 17th, 1901. JOSIAH OLDFIELD.

A BON MOT.

AT a recent medical gathering a speaker, to whose identity we will give no further clue than by saying that his name is known in connexion with removal of vesical calculi, happening to remark that in spite of competition and other circumstances he was glad to say he was not in the workhouse, was interrupted by one of his audience with the witty rejoinder, "You have to break stones, though!"

"KELÈNE."

To the Editors of THE LANCET.

SIRS,—If the writer of the question in THE LANCET of June 1st, p. 1582, as to Kélène and its usefulness will communicate with me I shall be very glad to tell him my experience of the drug. I have tried it in a fair number of cases now.—I am, *Sirs*, yours faithfully,

W. J. MCCARDIE.

54, Newhall-street, Birmingham, June 18th, 1901.

THE HOVIS CYCLE ROAD MAP.

THIS is a map intended primarily for the use of cyclists and also to advertise Hovis bread and Ariel cycles. As a map it is clear and good. The roads are marked in red and the quality of hills indicated by differently feathered arrows. Mileage is also marked. The map is on a scale of five miles to the inch and covers the whole of England and Wales, being divided into eight sections. That before us includes, roughly speaking, the S E. portion of England, its extreme points being from N to S., Oxford to the Isle of Wight, and from E. to W., Broadstairs to Kingsclere. Crockham Hill, near Westerham, is misprinted "Cockham." The price of the map is 1*s*, and a list of hotels, repairing stations, and the like is also given

◆

S. T.—A medical man may, in our opinion, give an anæsthetic for any dentist on the Register whether his registration is due to diplomas or to the fact that he was in *bonâ-fide* practice before a certain date. But a medical man should not assist an unregistered dentist by administering an anæsthetic for him.

Fulham.—We can only recommend our correspondent to give the matter no attention. Undoubtedly, if he could prove that he had been deliberately and publicly insulted he could obtain the protection of the law, but to bring an action upon flimsy grounds would be to expose himself to ridicule.

COMMUNICATIONS not noticed in our present issue will receive attention in our next

METEOROLOGICAL READINGS.

(Taken daily at 8 30 a.m. by Steward's Instruments.)

THE LANCET Office, June 20th, 1901.

Date.	Barometer reduced to Sea Level and 32° F	Direction of Wind	Rain fall	Solar Radia in Vacuo	Maximum Temp Shade	Min. Temp	Wet Bulb	Dry Bulb	Remarks at 8.30 A.M.
June 14	29 61	N.W.	0·03	116	67	51	51	55	Cloudy
" 15	29 96	N.	...	108	63	49	51	56	Cloudy
" 16	30·00	N W.	...	112	65	55	53	56	Cloudy
" 17	30·00	N W.	0·01	113	64	54	50	57	Cloudy
" 18	29·96	N	...	112	64	48	48	52	Cloudy
" 19	30 18	S	..	105	70	48	51	56	Cloudy
" 20	30·10	S W.	0 08	70	60	52	55	56	Overcast

Medical Diary for the ensuing Week.

OPERATIONS

METROPOLITAN HOSPITALS.

MONDAY (24th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. [illegible] 30 P.M.), Middlesex (1.30 P.M.), [illegible] (2 P.M.), Samaritan (Gynæcologic[illegible]o-square (2 P.M.), Royal Orthop[illegible] (4 P.M.), Gt. Northern Central (2 [illegible] London Throat (2 P.M.)

TUE[illegible] M.), Guy's [illegible].), West- [illegible] College [illegible]t. Mark's [illegible] on Throat [illegible] A.M. and [illegible]

W[illegible] (9.30 A.M.).

TH[illegible] Golden-square (9.30 A.M.).

FRI[illegible] Throat, Golden square (9.30 A.M.).

SAT[illegible]

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MO[illegible] (20, [illegible]eneral [illegible]suing [illegible]pithe- united [illegible]g will [illegible]ort of The [illegible] Address

WEDNESDAY (26th).—DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND (20, Hanover-square, W.).—4.30 P.M. Informal Exhibition of Cases. 5 P.M. Meeting.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (24th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies street, W.C.).—4 P.M. Mr. M. Morris: Consultation. (Skin.)

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. Saunders: Rickets.

TUESDAY (25th).—ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. H. Head: On Certain Mental States associated with Visceral Disease in the Sane. (Goulstonian Lecture).

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. C. T. Williams: Consultation. (Medical.)

WEDNESDAY (26th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. P. J. Freyer: Consultation (Surgical.)

LONDON HOSPITAL MEDICAL COLLEGE (Anatomical Theatre of the College).—4 P.M. Mr. Jonathan Hutchinson: Scrofula in Relation to Tuberculosis.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. J. K. Fowler: Bronchiectasis.

THURSDAY (27th).—ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. H. Head: On Certain Mental States associated with [illegible] Demonstration (Post-Graduate Course.)

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. Keetley: Acute Peritonitis.

FRIDAY (28th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies street, W.C.).—4 P.M. Dr. StClair Thomson: Consultation. (Throat.)

EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used

MANAGER'S NOTICES.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them! Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM		TO THE COLONIES AND ABROAD	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "*London and Westminster Bank, Westminster Branch*") should be made payable to the Manager, MR CHARLES GOOD, THE LANCET Offices, 423, Strand, London, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

During the week marked copies of the following newspapers have been received:—*Bristol Mercury, Bradford Observer, Brighton Standard, Pateley Daily Express, Leeds Mercury, Liverpool Daily Post, Yorkshire Post, New Zealand Times, Hertfordshire Mercury, Windsor and Eton Express, Mining Journal, Sanitary Record, City Press, Reading Mercury, Local Government Chronicle, Shanklin Gazette, Macclesfield Times, Standard, Australian Medical Gazette, Surrey Advertiser, Bulawayo Chronicle, South African News, Weekly Free Press (Aberdeen), Lancashire Daily Post, &c., &c.*

Communications, Letters, &c., have been received from—

A.—Messrs. Allen and Hanburys, Lond.; Messrs. Armour and Co., Lond.; Dr. A. G. Auld, Lond.; Dr. J. F. Armstrong, South Shields.

B.—Mr. Tom Bates, Worcester; Mons. C. Berthier, Paris; Messrs. J. H. Booty and Son, Lond.; Mr. L. Browne, Lond.; Messrs. J. Beal and Son, Brighton; Messrs. Bales Bros and Stevenson, Lond.; Bridgwater Infirmary, Hon. Secretary of; British Congress on Tuberculosis, Lond., Messrs C. Bayer and Co, Lond.; Burton on-Trent Infirmary, Secretary of; Messrs. Burgoyne, Burbidges, and Co., Lond., Mr. C. J. Bond Leicester; Mr. E. J. Brady, Earlstown; Mr. George Bower, Sutton; Messrs. Burroughs, Wellcome, and Co, Lond; Messrs. C. Barker and Sons Lond.; Mr. D. McM. Browne, Abersychan.

C.—Messrs. Castle, Lamb, and Storr, Lond.; Clarke Co., Lond.; Mr. J. Jackson Clarke, Lond.; Dr. G. H. Cowen, Southampton; Crooksbury Sanatorium, Proprietor of; Carlisle Dispensary, Secretary of, Cumberland, &c., Lunatic Asylum, Clerk of; Dr. P. H. M. Cambridge, Highland, Ill., U.S.A.; Chester General Infirmary, Secretary of.

D.—Dr. P. M. Deas, Exeter; Dr. C. Dukes, Rugby; Messrs. J. Defries and Sons, Lond.; Dumfries, &c., Royal Infirmary, Treasurer of; Dr. W. C. Daniell, Epsom; Dr. C. R. Drysdale, Lond.

E.—Captain H. M. Earle, Bakloh, India; East Suffolk Hospital, Ipswich, Secretary of.

F.—Messrs. W. Frederick and Co., Northampton; Fosco Manufacturing Co, Liverpool; F. C. S.

G.—Guest Hospital, Dudley, Secretary of; Mr. F. S. Gramshaw, Lond.

H.—Dr. D. Hethcote, Catterick, Hotel Tariff Bureau, Lond.; Messrs. J. Haddon and Co.' Lond.; Messrs. W. Hatchman and Co, Lond.; Messrs. N. Hutter and Son, Lond.; Hovis Bread Flour Co, Macclesfield; Dr. E. A. Houseman, Lond.; Mr. J. Hilton, Arayat, Philippine Islands; Hexham Rural District Council, Clerk of.

I.—Dr. W. A. Illingworth, Armagh.

J.—Mr. F. Jones, Manchester; J. K. F.; J. M. H., J. F. R.; Messrs, Jakeman and Carver, Hereford; Jeyes' Sanitary Compounds Co., Lond.

K.—Dr. C. F. Knight, Portobello; Messrs. Kilner Bros., Lond.; Messrs. R. A. Knight and Co., Lond.

L.—Dr. T. Laird, Heywood; Mons. A. Lorette, Paris; L. G. D.; Leicester Infirmary, Secretary of; Lee's Advertising Agency, Lond.

M.—Mr. J. F. Mackintosh, Lond.; Medical Graduates' College, Lond., Mr. G. W. May, Lond.; Manchester Hospital for Consumption, Secretary of; M.D., *Newcastle-on-Tyne*, Messrs. Manners and Hopkinson, Lond.; Maltine Manufacturing Co., Lond.; Mr. E Merck, Lond.; J. N. Masters, Ltd., Rye, *Medical Review*, Lond., Manager of; Dr. C. F. Marshall, Lond.; Dr. W. Milligan, Manchester; Mr. F. Percival Mackie, Bristol; Mr. J. Marshall, Pontnewydd; Modern Medicine Publishing Co, Battle Creek, U.S.A.; Dr. H. Macnaughton Jones, Lond.

N.—North Wales Counties Lunatic Asylum, Denbigh, Steward of; Messrs. Nicolay and Co, Lond.; Dr. H. C. Nicholson, Edinburgh; National Provident Institution, Lond.; Mr. H. Needes, Lond.; Mr. J. C. Needes, Lond.

O.—Messrs. Orridge and Co, Lond.; Messrs. Oppenheimer, Son, and Co., Lond.

P.—Dr. A. F. Perigal, New Barnet; Messrs. Phillips and Co., Bombay; Mr. Y. J. Pentland, Edinburgh; Messrs. Perreaux and Co., Lond., Mr. W. H. Palmer, Aberystwyth; Peterborough Infirmary, Secretary of; *Plaistow Hospital*, Medical Superintendent of; Messrs. Peacock and Hadley, Lond.

R.—Royal Surrey County Hospital, Guildford, Assistant Secretary of; Royal Medical Benevolent College, Lond., Secretary of; Miss Ringwood, Haselmere; Messrs. Reitmeyer and Co., Lond.; Royal Portsmouth Hospital, Secretary of, Royal United Hospital Bath, Secretary of; Messrs. Reynolds and Branson, Leeds, Rebman, Ltd., Lond.; Dr. F. W. Forbes Ross, Lond.; Mr. W. J. Robertson, Clapham; Dr. H. Rutherford, Glasgow; Messrs. Rivingtons, Lond.

S.—Dr. T. E. Sandall, Alford; Scarborough Hospital, Assistant Secretary of; Messrs. Sanders and Crowhurst; Mr. A. W. Saunders, Lond., Mr. W. Smartt, Dublin; Dr. H. Snow, Lond.; Dr. J. Pollock Simpson, Lond.; Dr. E. W. Skinner, Rye; Dr. G. Stanton, Simcoe, Canada; Scholastic, Clerical, &c., Association, Lond.; Society for the Study of Disease in Children, Lond., Secretary of.

T.—Dr. Campbell Thomson, Lond.; Mr. P. M. Toms, Cosham, Tower Hamlets Dispensary, Secretary of; T. A. F.

V.—Victoria Hospital for Children, Lond., Secretary of.

W.—Mr. J. Williamson, Lincoln; West Bromwich Union, Clerk of; Worksop Dispensary, Secretary of; Dr. Hale White, Lond.; W. H. F.; Dr. D. Walsh, Lond.; Miss M. Woodward, Eltham; Messrs. W. Wood and Co., New York; Messrs. Montgomery Ward and Co., Chicago Westbrooke House, Alton, Medical Superintendent of; Mr. R. M. H. Walford, Alfreton.

Z.—Messrs. A. and M. Zimmermann, Lond.

Letters, each with enclosure, are also acknowledged from—

A.—Mr. L. B Abraham, Lond., Abbey's Effervescent Salt Co, Lond.; A. M.; A. W. L.; A. H.; A. J. R. C.; A. W. B., A. H. A.; Dr. A.

B.—Mr. D. M. Browne, Pontypool; C. Birchall, Ltd., Liverpool; Borough of Southend-on-Sea, Accountant of, Bristol General Hospital, Secretary of; Bedford County Hospital, Secretary of, Beta, Newcastle-on-Tyne; Mr. E. H. Beaman, Misterton; Dr. H. W. Bernard, Lancaster; Messrs. J. H. Bridges and Son, Lond.; Dr. A. B. Blair, Banwell.

C.—Mr. T. E. Cotter, Southport; City of Leeds, Accountant of; Messrs. A. H. Cox and Co., Brighton; Dr. C., Manchester; Mr. A. Connell, Sheffield, C. L.; Dr. M. W. Cowan, Worcester; Messrs. S. Clark and Co., Lond.; Messrs. J. W. Cooke and Co., Lond.; Dr. A. Cook, Preston; Dr. F. Carter, Billericay; C. R. S.; C. A. E. H.; C. E. R.; C. L. S.; Dr. W. T. Cocking, Sheffield; Mr. M. F. Cock, Turvey; Mr. L. Cooke, Aspull.

D.—Mr. A. H. G. Doran, Lond.; Mr. T. Dixon, Lond.; D. J.; Mr. E. L. D. Dewdney, Dunster; Mr. A. Driver, Chelmsford; Mr. D. Davies, Llandovery; Doctor, Lond.; Dr. D.

E.—Eccles and Patricroft Hospital, Secretary of; E. H.; E. R. S., E. J. F.

F.—Forsaith's Advertising Agency, Lond.; F. R. H. M.; F. H. D.

G.—Miss Goffe, North Finchley; Messrs. Gilyard Bros, Bradford; Mr. T. Gray, Pontypridd, Glasgow Eye Infirmary, Treasurer of; G. F. P.; Messrs. Goodwin and Jeffery, Maidstone.

H.—Dr. E. Houseman, Lond.; Dr. S. P. Hyam, Edinburgh; Dr. H. Henry, East Hoathly, Dr. R. N. Highmoor, Litcham; H., Lond.; Dr. Holt, Folkestone, Hull Royal Infirmary, Secretary of; Mr. T. Homer, Laxey, Isle of Man; Dr. J. Hunter, Invercargill, New Zealand; Surgeon A. F. Harper, R.N., China Station; Mr. A. S. Hanson, Titchfield.

I.—Dr. I.

J.—Dr. R. C. Joyce, Porth; J. H.; Mr W. Johnson, Shrewsbury; J. H. J.; J. B. B; Dr. A Jervis, Lond.; J. H., Hailsham.

K.—Mr. R. Knowles, Haslingden Messrs. Knight and Co., Lond. K., Lond.. Dr. R. Kirk, Partick.

L.—Dr. A. W. W. Lea, Manchester Mr. H. K. Lewis, Lond.; L. F. Mr. M. Lewis, Neath; L. F. C. Dr. J. S. Lyttle, Cilfynydd.

M.—Mr. H. H. Mason, Croydon Messrs. Macmillan and Co. Lond.; Major H. M. Morris New Milton; Medicus, Leamington Spa; Medicus, Portsmouth Mrs. H. Miles, Eastbourne Maloja Kursaal, Engadine, M. D.; M. T.; Dr. McC. Manchester Medical Agency Mr. Howard Marsh, Lond. Messrs. McKesson and Robbins New York.

N.—Nurses' Coöperation, Lond. Secretary of.

P.—Dr. R. C. Peacocke, Bournbrook; P. S.; P. S. W.; Mr. H. J. Phillips, Grampound-road.

Q.—Mr. T. M. Querney, Komgha Cape Colony.

R.—Mr. E. Rideal, Barnsley R. N.; R. M.; R. C. G.

S.—Mr. E. Swindells, Torcross Dr. W. C. Steele, Allendale Messrs. Street and Co., Lond. Mr. J. F. Stevenson, Darlington Southport Infirmary, Secretary of; Mr. J. Smyth, Lond.

T.—Teignmouth Hospital, Secretary of; Dr. T.; Mr. J. E. Tuke Harrogate.

U.—Union Bank of London.

W.—Mr. G. R. White, Ipswich Mr. A. H. Walters, Bristol Mr. A. H. Wade, Little Marlow Dr. C. T. Woods, Cork; W. D. Dr. A. E. Wells, Cuckfield Messrs. Watkins and Osmond Lond. W. F. G.; W. P. R.; Mr H. P. Wight, Lond., W. G. Messrs. H. Wilson and Son Lond., W. F. W.; W. D.; Dr W. H. Williams, Dwyran.

EVERY FRIDAY.

THE LANCET.

PRICE SEVENPENCE.

SUBSCRIPTION, POST FREE.

For the United Kingdom.		To the Colonies and Abroad.	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

ADVERTISING.

Books and Publications ...	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 6
	Every additional Line	0 0 6

Quarter Page, £1 10*s*. Half a Page, £2 15*s*. An Entire Page, £5 5*s*.

Terms for Position Pages and Serial Insertions on application.

An original and novel feature of "The Lancet General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in The Lancet.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. Charles Good, The Lancet Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

The Lancet can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris.

The Cavendish Lecture

ON

ACUTE CARDIAC FAILURE.

Delivered before the West London Medico-Chirurgical Society at the Town Hall, Hammersmith, on June 21st, 1901,

By Sir RICHARD DOUGLAS POWELL,
Bart., K.C.V.O., M.D., F.R.C.P. Lond.,
CONSULTING PHYSICIAN TO THE MIDDLESEX HOSPITAL, ETC.

Gentlemen,—"Acute heart failure" is, I admit, a misleading phrase, but it is scarcely necessary to explain to an assembly such as this that it implies, not any separate disease of the organ, but the culmination in temporary or permanent arrest of the cardiac function of a variety of conditions damaging to tension and exhaustive to nerve power or muscular energy. We cannot perceive aright the heart and its mechanism or appreciate duly its modes of failure unless we bear steadily in mind the fact that it is but a part, differentiated for special reasons, of a complete cardio-vascular tubal system containing the blood. The tubes are not passive tubes sluiced by a central force pump; on the arterial side the powerful rhythmic pulsations of the heart are so modified and restrained by the elastic muscular action of the vessels as to ensure a safe and adequate stream of blood throughout the body; whilst on the venous side the position of valves, the action of adjacent and often ensheathing muscles, the impetus of lymph and chyliferous tributary currents, and the constant but rhythmically increased thoracic aspiration help to maintain the blood movement.

I need only hint at the large influence of the nervous system which has in course of evolution become so specialised with regard to the heart and vessels. The cerebro-spinal nerves, the sympathetic system, and a department of the nervous system—the vaso-motor nerves—in touch with the preceding and yet under guidance from a separate centre, all take part in controlling the heart's doings and in regulating the blood-supply to each organ according to its functional requirements which vary from time to time. Finally, there is held in the tightening and relaxing grasp of this complex tubal apparatus the blood itself, a living tissue whose constant variations, both chemical and physical, in health and disease, affect the facility of the capillary flow and influence the tonicity and nutrition of the circulatory apparatus Can we look into this complex mechanism, which I have but enumerated, in which physical, chemical, and vital agencies are so intimately mingled, without a feeling of wonder that it should hold good unceasingly to the allotted term of life, and that so few lives should be brought to a premature close through heart failure? A chapter on compensatory adaptations has yet to be added to our text-books on medicine for our better understanding of many such problems.

With such an infinite number of contributory factors acute cardiac failure cannot be a simple question, and if I, bound by the stern limits of time and the more compelling limitations of my ability, approach it from the more concrete, clinical, and practical side, it is from no want of appreciation of the manifold intricacies of the subject, and it is with a very humble sense of our indebtedness as practical men to those whose patient labours in the laboratory have given us so large an insight to help us to solve the problems that come before us in our daily work.

A most obvious cause of heart failure is direct injury—excluding, of course, external wounds—as, for instance, the very rare occurrence in which a healthy man during some sudden effort ruptures one of his aortic cusps. The whole cardiac mechanism is suddenly put out of gear, severe præcordial pain, disorderly action, and faintness ensue, to be followed by other signs of perturbed circulation. In the only case of this injury that I personally remember seeing almost immediately there was smart hæmoptysis, no doubt from the over-distended left ventricle obstructing the return from the lungs. Under the only treatment possible—very complete rest—the heart, at first surprised and only very imperfectly able to deal with the altered mechanism consequent upon the spoiled condition of its main valve, gradually steadied down. The left ventricle enlarged and increased in power and the small, rapid, and irregular pulse was gradually altered to that having the characteristic features of aortic regurgitation. This alteration of pulse marked the adaptation of the heart to its new conditions in a manner precisely similar to that which we observe in a case of aortic regurgitant disease in which, dilatation of heart and mitral inadequacy having arisen, the irregular mitral characters of the pulse gradually return under rest and treatment to those proper and normal to a well-compensated aortic regurgitation.

The displacement of a clot from a systemic vein is a common cause of acute anginal heart failure and is attended with urgent dyspnœa, an irregular, fluttering pulse, and very variable heart signs. The condition is indeed one of asphyxia of the heart and it either terminates rapidly in death or the clot is further dislodged and propelled into the lung, when the cardiac symptoms quiet down and those of another order commence, with hæmoptysis significant of pulmonary infarction. Here, again, we can only recognise what is happening and relieve suffering and ensure quietude by subcutaneous morphia and like remedies. These cases are, however, by no means necessarily fatal; if the clot passes on to the lungs recovery ensues in a fair proportion and the prognosis in each case must be considered on its separate merits.

Next to such injuries to the heart, of which I have given a right-sided and left-sided example, we must glance at cardiac failure from over-taxation. There are two factors always at work, although in different proportions in different cases, in producing cardiac failure from great or prolonged exertion—viz., direct fatigue of the nervo-muscular tissue of the heart and a poisoning of the blood of auto-metabolic source. Speaking of young people and healthy hearts acute cardiac distress is, of course, very common in these days of athletic competitions, strenuous school exercises, hard bicycling, &c. It is surprising that actual heart failure so rarely occurs; but few of us have an opportunity of witnessing such an attack. Fatal cases are rare, but have been recorded. For the most part we can only observe the after-effects of incomplete heart failure.

Amongst the concomitants of heart distress or failure during violent exercise, as running, vomiting is one of the most common. A boy will tell you that at the end of a long race which over-taxed him he cast himself on the ground and vomited. Dr. Clement Dukes, speaking of boys overdone from running from various causes, says[1]: "Sometimes the boy will finish merely fagged or he will faint or vomit by the way and will require to lie down on the road, or he will complete his run, but vomit all the evening after reaching home; or, again, if still more overdone he may become absolutely insensible while running and this state may last for hours; or he may die whilst in the act of running." Amongst the after-effects one of the most constant is anæmia, and both of these phenomena, vomiting and anæmia, may be regarded as bearing witness to a changed condition of the blood consequent upon the accumulation of products of metabolism, which is now recognised as taking a not unimportant part in the mechanism of heart failure. I would remind you that gastro-intestinal attacks, vomiting, or diarrhœa are not uncommon occurrences in those who, habitually leading a sedentary life, suddenly take to exhausting exercise. There are other more certain proofs of altered blood in those who have died from excessive exercise and in hunted animals, of which increased liquidness of the blood, absence of post-mortem clotting, and darkened colour are amongst the more obvious. I am not aware of any observations that have been made upon the blood in healthy people after a period of training followed by severe and exhausting effort, and, still more interesting, after prolonged exertion in those who are not in training. We are all of us familiar with cases of neurasthenia and anæmia distinctly traceable to some severe exertion in a person with no previous training.

In estimating the consequences of over-taxation of the heart from violent or prolonged exertion in young people especially there are one or two points of practical moment to be observed. A glance at Beneke's tables[2] will show that the heart of the child is somewhat precociously developed, and this cardiac precocity is in accordance with what I believe to be a fact which I have long observed and pointed out in clinical teaching—viz, that the heart of the child, say, between six and 12 years is relatively hypertrophied—i e., the apex beat is somewhat to the left of the normal and the impulse relatively strong. This is the case especially with boys, and in my experience holds good with a considerable proportion of them. I have regarded it as due to the ceaseless activity of children and to a developmental precedence of heart to chest and lung capacity. The practical point is that I do not regard a slight extension of the apex beat within the nipple line, unaccompanied by confirmatory signs, as necessarily a morbid condition in a child. I look for the evidence of cardiac overstrain rather in an extension of the upper margin of dulness in the mid-sterno nipple line, an unduly perceptible impulse at the ensiform base, and in a hesitating action of the heart—i.e, an irregularity in rhythm and force. These signs in association with languor, anæmia, breathlessness on exertion, and sometimes a sharp pain at the heart which I have heard described as a "beastly pain catching the wind," caused by a slight effort are sufficient for diagnosis. You may get others, such as murmurs; you often do get a hæmic murmur over the pulmonary area, but murmurs are by no means essential or to be expected.

---

[1] Health at School, 1894, p. 331.

A foreknowledge of the contributory and direct causes of these preventable occurrences is, of course, of much importance, and, thanks very greatly to the labours of Dr. Clement Dukes and to the careful supervision of the able medical officers attached to most of our public schools of recent years and to the care with which boys are watched, weighed, measured, and their sports organised at most of our preparatory schools, all such risks are reduced to a minimum, whilst, on the other hand, the moral and physical advantages of athletics are fully maintained. A routine examination and registration of the health of every boy on entering school life would, however, be an advantage, supplemented, perhaps, by some brief form of health report from the home medical adviser.

A cardinal point—and the only one I shall touch upon—to be borne in mind with regard to young boys and girls is their special aptitude for short spells of active exercise but their complete unfitness for prolonged fatiguing monotonous exertion. This is almost the reverse condition applicable to older people, and it is one often forgotten, not, perhaps, so much at schools as at home. Athletic fathers, robust elder brothers, proud of the sporting alertness and eagerness of young boys, will often keep them out on long bicycle, golf, or shooting expeditions, and may thus cause grave damage to the young and rapidly-developing heart. There is certainly a lack of supervision of young men training for athletics at the universities, although it is true that they come already seasoned and tested from the public schools. There ought to be some medical "don" to supervise university athletics who should, however, be himself thoroughly in sympathy with the athletic spirit.

The treatment of acute failure of heart from overstrain involves a period of a few weeks' complete rest and often many months of careful supervision. Young people make a rapid and generally a complete recovery, provided no actual lesion has been produced The younger they are the more ready and complete the recovery. In youths and young men a degree of irritability of heart is often to be observed for many months, even for some years, the patient suffering from attacks of palpitation and cardiac pain on slight fatigue or exertion and often at night. Quiet exercise must be resumed after a time and it is, in my opinion, better to allow interesting exercises within measure, such as croquet, level cycling, golf, and easy tennis, rather than more formal courses of training. But each case must be considered on its merits. In some cases of cardiac overstrain in young people it will be found that a feeble lung capacity has led indirectly by imperfect pulmonary circulation to the heart distress. In such cases well-ordered respiratory exercises by developing the lungs will facilitate the work of the right heart and help the general circulation by increasing thoracic aspiration. Well-planned sea voyages or sailing trips from the coast are peculiarly advisable for adults, provided strict injunctions against smoking and all strong alcoholic drinks are given.

Another form of fatigue heart failure is that frequently met with in acute disease. It is too long a story for me to go into now. I have dealt with it with some minuteness elsewhere,[3] as met with under one of the most common of circumstances—viz., in acute pneumonia. It is met with also in enteric fever, in acute bronchitis in old people, during a severe asthma paroxysm, and in other conditions, such as functional tachycardia. The heart failure in these conditions may come about with a gradual quickening day by day of the pulse until it becomes fluttering, confused, running, representing little more than peristaltic movements of the heart. In other cases—and this more commonly in plethoric, fleshy, larged-framed people with a pulse at first not unduly quick, with considerable tension and accentuation of the second sound—the failure occurs quite suddenly, attended with rapid breathing, pallor, and cyanosis, sweating, collecting mucous rattles in the chest, and almost imperceptible running pulse. Under strong stimulation and the subcutaneous use of strychnine the patient may rally and all the conditions improve, but relapse often, and in elderly people almost always, takes place. An attack such as I speak of occurring in an old person with bronchitis or pneumonia is almost of fatal augury; the senile heart cannot recover the fatigue, and hence when the pulse mounts up to 120 in old people recovery is rare, unless the rapidity be attributable to functional disturbance from some temporary cause. With a sound heart in young persons no condition is too desperate for possible recovery.

Now to discuss the treatment of heart failure under these varying conditions would be to discuss the whole management of the illnesses in question. There are a few factors, however, in special concern with heart failure in acute disease—viz., (1) maloxygenated and otherwise contaminated blood-supply to heart muscle and nerve; (2) excessive weight of blood burdening the heart; (3) exhausted innervation from sleeplessness and physical cardiac fatigue; (4) positive obstruction to the flow of blood through the lungs; and (5) changes in the texture of the heart muscle incidental to the disease and especially to the pyrexia. Now the first two indications are undoubtedly met by depleting the blood volume from the venous side by attention to secretions, the occasional use of mercurials, careful limitation of the food taken in place of the over-feeding often to be observed, and in some cases a small blood-letting. The timely employment of oxygen inhalations at intervals through the day is a remedy of great value which ensures an improvement in the aeration of the blood sent to the left ventricle and so direct to the coronary vessels. It is by no means necessary to employ oxygen inhalations in the majority of cases of pneumonia, of which disease I am now especially speaking, but in all severe cases the cylinder should be at hand to anticipate the threatened heart failure. 3 and 4. Exhausted innervation and pulmonary obstruction are met with in pneumonia, advanced typhoid fever, and asthenia especially. Strychnia is the most powerful cardiac tonic we know and subcutaneously used is the best remedy for heart failure. In these cases, however, a frequent concomitant symptom is ballooning of the abdomen, and it is both dangerous and inefficient for the purpose required to give strychnia in such cases by the stomach. In asthma, pneumonia, and in enteric fever it is often possible in combination with the free use of oxygen and the occasional injection of strychnia to give a sufficient subcutaneous dose of morphia to procure some much-needed sleep. When the heart threatens to fail in asthma the paroxysm must be thus shortened. In bronchitis, on the other hand, under no circumstances can morphia be so given. I have often observed cardiac exhaustion threatened in asthma through the want of small administrations of concentrated and assimilable food essences at intervals to support the patient Alcoholic stimulants are, of course, often necessary, the dose being adapted to suit the individual case. 5. These changes incidental chiefly to pyrexia in the heart muscle as a cause of failure are mostly to be considered in the prolonged fevers and will be best warded off by a judicious mitigation of the pyrexia. I would only observe on this head that in cases where there are labouring action of the heart and a tendency to cyanosis and stagnation of surface blood I have seen much better results from hot-water than from cold-water sponging or cold applications. The surface circulation is facilitated, heat is rapidly lost, and the skin functions encouraged, all tending to lighten the burden of the heart. In the after-treatment of pyrexial diseases in which there has been prolonged rapidity of heart or any sign of heart failure a chief regard has to be paid to restoration from cardiac fatigue. Thus our level sea and country resorts are preferable to hilly places and exercise must only gradually and tentatively be resumed.

---

[2] Die Altersdisposition, 1879, p. 94.

[3] Lumleian Lectures: On Treatment in Diseases and Disorders of the Heart, Lecture III.

I can only glance at specific poison failure of heart in diphtheria, phosphorus poisoning, malignant anæmia, and the like, in which the cardiac nerves are directly poisoned, and in most cases a rapid fatty change in the heart fibres ensues. These cases are mostly fatal with the exception of the influenzal cardiac affections, amongst which symptoms of slowing and increased rapidity of heart are met with, also some most intense forms of angina, usually vaso-motory, and attacks of dangerous syncope may occur, yet the prognosis is even in severe cases, so far as my experience goes, as a rule, favourable.

Of anginal heart failure I have no time to speak at length. I would only urge that from a practical and treatment, as well as from a scientific, point of view we must regard angina pectoris as in the largest class of cases a functional disease—a cardio-vascular neurosis. In many cases it is dependent upon disorderly action of the vaso-motor nerves and is associated with a sound heart (angina pectoris vasomotoris). In many others we have a similar mechanism but with, in the background, an unsound heart—aortic regurgitation, aneurysm, senile fibro-fatty hypertrophy, coronary disease, and the like (angina pectoris gravior or secondary cardiac angina). In numerically a comparatively small although very important group the anginal failure is usually the consequence of cardiac degeneration secondary to coronary disease, sometimes to coronary thrombosis or syphilitic disease (syncopal angina or primary cardiac angina). It is obvious that all the causes of excitement, direct and reflected, of the sympathetic and vaso-motor nerves must be looked into in dealing with the larger proportion of these cases, whilst, on the other hand, any special form of cardiac lesion must be appropriately dealt with. In accordance with what has been above stated the immediate remedies for the cardiac attacks are of the anti spasmodic and sedative class, amyl, trinitrine, opium, directed against the arterial spasm which is so important a factor in the attack.

In cases of coronary lesion the employment of regulated exercises, combined resistance, and respiratory exercises, and, in old people especially, the regulated use of oxygen inhalation, will help to maintain cardiac nutrition for at least a time longer. Whilst gentle exercise calculated to raise the blood-pressure within the coronary circuit is thus to be advised caution is necessary that no cardiac fatigue be induced. The periods of exercise should be of short duration. As in old people with atheromatous vessels cramp in the legs is readily induced by any fatiguing exercise in consequence of the imperfect nutritional change allowed by the narrowed arteries, so we may similarly get cramp in the heart muscle which is very apt to prove fatal. This was pointed out by Allan Burns nearly a century ago and further dwelt upon by Sir Benjamin Brodie. It is to be noted also that the cramp of fatigued muscles does not necessarily come on at once, but frequently is postponed until the night Cramp in the leg is a mere painful incident, cramp in the heart muscle is apt to prove fatal.

There are two conditions leading up to heart failure which I have not touched upon and yet which from the remedial point of view are of immense importance, but they have been fully handled by my colleague Dr. Mitchell Bruce in his recent Lettsomian Lectures One is typified in the middle-aged, plethoric man who, working hard, lives too well and takes little exercise This man gradually acquires a fatigued and over-burdened heart, over-weighted with the heavy volume of blood which it has to propel He may get a spring or summer cleansing once a year at Homburg, Harrogate, or Carlsbad, but on the whole he drifts along often into irremediable disease of heart or kidneys or both His first introduction to the physician is often after an attack of breathlessness and cardiac excitement or failure occurring on some unwonted exertion, after which he remains perceptibly short-breathed. His cardiac area is extended, partly from a slight yielding but mainly from præcordial and interstitial fat. The first sound is weakened, often to extinction, and the second sound is labouring; there may be slight albumin or a little sugar in the urine. Under a depletory treatment, a restricted diet, with a limitation of fluids taken chiefly between meals, a great curtailment of alcohol and smoking, and well-arranged exercise, with insistance on deep, full inspirations from time to time whilst walking in the fresh air, such a man will be restored to health and practically rescued from some early catastrophe in the form of heart failure in acute illness or from drifting into chronic cardio-vascular disease. A few weeks' change away whilst getting inured to the treatment is of great value and such cases will derive especial benefit from Nauheim or modified Oertel treatment.

The other class of cases I would refer to in association with two causative factors—viz., nicotine and epilepsy. I may bring my remarks to a point and a conclusion by a brief sketch of a case in illustration. A captain in an infantry regiment was invalided home from South Africa on account of attacks of heart failure He was a married man, 37 years of age, had never had syphilis, but was an inveterate cigarette smoker. In July, 1900, whilst mounting a hill he felt distressed and on return to camp fainted, and after this he was unable to exert himself without some distress In September, having escorted some prisoners from Durban to Cape Town, without sickness or fatigue or any hardship, he on arrival was about to get ready for dinner and in the act of taking a glass of wine bitters when he suddenly fell down unconscious and pulseless so that a medical man who saw him immediately thought him dead. He remembered nothing until he woke at 2 A M. feeling very faint and ill. There was no preceding sense of faintness, no pain, and no convulsion. On a later occasion whilst feeling very well he suddenly fell unconscious for a quarter of an hour He has had one similar attack since his return home in November. He was subjected to a course of Nauheim treatment without benefit. His complaint was, besides these attacks, of almost daily attacks of cardiac pain, especially induced by any exertion. Dr Walker, under whose care he came subsequently to the Nauheim course, by rigorously restricting the tobacco and regulating his diet and stimulants, materially relieved these symptoms, and when I saw the patient with Dr. Walker in April the cardiac dimensions, position, and sounds were normal and the pulse, although feeble and rather quick, presented no other special feature. On inquiry into this gentleman's family history nothing cardiac was elicited, but it was ascertained that his second son was the subject of very frequent and severe attacks of petit mal and a brother was a deaf mute. This case was primarily no doubt one of anginal heart failure in association with excess in nicotine, and as such belonged to a class of frequent occurrence, but in the case just related the instantaneous attacks of unconsciousness were suggestive of at least an associated neurosis of an epileptic character. I have met with one very strikingly similar case in a younger man, also an excessive smoker, and I have a less full recollection of another case in connexion with excess in cocaine

I have from time to time been consulted about a lady who has long been the subject of night attacks of an epileptic character and who has recently developed marked and rather severe attacks of angina with heart failure of an alarming degree, many of which attacks usher in a mild epileptic seizure. In her case the pulse of late years has become extremely slow and she has presented some symptoms of myxœdema

Cases of cardiac hesitation with pulse of uneven rhythm not amounting to intermittency and presenting occasional attacks of fainting are not very infrequent amongst children, young boys especially, between six years of age and puberty. They are easily tired and are generally anæmic. It is quite exceptional to find them addicted to any secret vice There is nothing abnormal beyond altered rhythm and vacillating force to be found in the heart. The distinction between this form of heart failure and petit mal is often difficult and I am strongly inclined to regard the two conditions as allied. Removal from all mental pressure, an outdoor life, and arsenical tonics generally result in gradual recovery.

I have endeavoured in this address rather to suggest lines of thought than methods of treatment, feeling that you are as competent as I to give a practical therapeutic interpretation to whatever of my suggestions may meet with your acceptance

---

SOUTH-WEST LONDON MEDICAL SOCIETY.—The annual dinner of this society took place on June 20th at the Café Monico Nearly 40 members and friends sat down to dinner, Dr. M. G Biggs, the President, being in the chair. Among the guests of the society were Mr. Bryant, Dr. Habershon, Mr. Lockwood, Dr. James Taylor, Dr. Herbert Hawkins, and Dr. Morgan Dockrell. Some excellent music, provided by the generosity of Mr. T. S. Howell, a former President of the society, brought a very pleasant evening to a close.

Three Lectures
ON
THE PRACTICAL POINTS IN THE TREATMENT OF THREATENED ASPHYXIA.

Delivered at the Medical Graduates' College and Polyclinic, Chenies-street, W.C.,

BY ROBERT L. BOWLES, M.D. ST. AND., F.R.C.P. LOND.,

CONSULTING PHYSICIAN TO THE FOLKESTONE HOSPITAL; PHYSICIAN TO ST. ANDREW'S CONVALESCENT HOME.

LECTURE II.[1]

GENTLEMEN,—In my last lecture I demonstrated to you the nature of the experiments on which the Marshall Hall and Silvester methods for the resuscitation of the apparently drowned were based, and I told you that the committee of the Royal Medical and Chirurgical Society had confirmed in every detail the results of our experiments, and that the committee, in addition, demonstrated that in drowned animals, not only were the air passages choked with fluid more or less bloody, but that both lungs were highly gorged with blood so that they were heavy, dark-coloured, pitted on pressure, and on being cut exuded an abundance of blood tinged fluid with many air-bubbles in it. The committee up to this point made a distinct advance: it settled an important principle of pathology in a clear and definite manner. Before this time, although Sir John Simon and other pathologists had asserted the presence of water in the lungs in cases of drowning, the opinion of Sir Benjamin Brodie prevailed both in the profession and at the Royal Humane Society, to which the public always turn for advice in this matter. Sir Benjamin Brodie[2] says: "That the admission of water into the lungs is prevented by a spasm of the muscles of the glottis cannot, however, be doubted, since we are unable to account for the exclusion of it in any other manner; and a multitude of circumstances prove that these muscles form a sphincter to the windpipe as perfect in its functions as any sphincter in the body." The committee showed by their experiments, on the contrary, that Sir Benjamin Brodie's theory of the non-existence of water in the lungs was incorrect, for they proved that water did exist, at least in animals. Now, instead of showing how this water, of which they admit the lungs to be full, could be first removed and then replaced, *pari passu*, by the introduction of pure air, the committee advised the adoption of a method which would introduce the largest amount of air into *empty* lungs. I would ask how it was to be introduced into lungs shown to be already full of water. The only effect of forcibly driving in air, which the Silvester method certainly does, would be to drive the water forcibly forward into the minute bronchial tubes and into the air cells, giving rise to a spongy or doughy feeling instead of the natural light elastic crepitation of healthy lung-tissue. Moreover, the water becomes inspissated with mucus, and frothy, by mingling with the air remaining in the lung—an exaggerated condition of what I have elsewhere shown produces in apoplexy "mucous stertor."

It must have surprised the committee to have found their results, although confined to animals, so entirely opposed to those of Sir Benjamin Brodie, and caused them to wonder how such differences could have arisen. It occurs to me that Sir Benjamin Brodie and others at that time must have drawn their conclusions from the fact that at times in drowning no water was found in the trachea and larger air-tubes. This, however, could not be so surprising when we reflect how easily water will make its way out of the trachea and large tubes during the many and irregular movements to which the body is subjected whilst being removed from the water to a suitable place for treatment, and further when we reflect how rapidly water evaporates on exposure to the air. At all events, it is now quite certain that the previous observers were in error. In 1862 I had a case of drowning and observed it very carefully during the whole course of its treatment. I made it, in fact, the subject of an experiment and I found that for three-quarters of an hour a little fine white foam was expelled from the mouth or nostrils at each pronation of the body. A second case soon followed and my observation of it gave precisely similar results. I then critically examined the many cases of drowning reported by Professor Casper and in nearly all of them was to be found most positive evidence that the lungs of the apparently drowned were gorged with water. He says[3]: "In the recent bodies of those who have been suffocated by drowning we find, besides the cinnabar-red, vascular injection of the tracheal mucous membrane, sometimes only a few isolated, white, but very distinct, small, pearl-like bubbles; sometimes a much greater quantity of froth, which is generally white, and more rarely bloody, and sometimes the whole tracheal canal is completely filled with this finely vesicular white foam. This extends into the bronchi, or, rather, extends out from them and their ramifications, as is distinctly evinced by exerting strong pressure on the as yet untouched lungs, when this froth will be seen to ascend into the opened trachea, even in those cases in which little or none of it had been originally found." ...... "I have found," he says, "this appearance in the trachea [in those entirely submerged from the first], precisely the same as in those other cases in which a repeated emergence above the surface of the water, though not positively known, might yet have been supposed to have taken place. At all events, since this froth is the product of the mixture of the inhaled fluid, in which the drowning has occurred, of the natural mucus of the passages, or even of blood from some ruptured vessel with the air contained in the lungs and trachea, and caused by the final forcible respiratory movements, it must be regarded as an indubitable sign of vital reaction—that is, that life must be regarded as having existed at the period of its formation." The lungs completely distend the chest, "they appear to be inflated like a balloon, and are not like ordinary healthy lungs, tolerably firm and crepitating, but feel exactly like a sponge. A similar condition is not found so constantly after any other kind of death, excepting only the most acute œdema of the lungs, which, however, is not present in this case, and occasionally after suffocation in irrespirable gases. The distension of the lungs is in part an actual hyperaeria in consequence of the most violent inspiratory acts carried on at the momentary emergencies of the head of the drowning person above the surface of the water, but partly and chiefly a consequence of the inhalation of the fluid, in which drowning occurred, into the lungs, as has been indubitably proved by experimenting on animals with coloured fluids and by my own experience in regard to specific fluids. When the lungs are incised there is a copious outflow of sero-sanguinolent froth. The fact, proved by experiment beyond the possibility of a doubt, that the increased volume of the lungs does not exclusively depend upon mere hyperaeria explains why this condition of the lungs is found even in those cases of drowning where death has been caused, not by asphyxia, but by neuroparalysis, and this adds very much to the value of this most important appearance."

Such was the experience of Professor Casper and, it may safely be assumed, of the profession in Germany generally. Such, too, was the experience of the French School, as more recently confirmed at the Morgue by M. Bergeron and M. Montano. Dr. Taylor in his work on Jurisprudence, in quoting them, says: "The existence of a mucous froth in the fauces, larynx, and bronchi is, according to MM. Bergeron and Montano, the only constant sign of death by submersion, whether syncope or asphyxia preceded death." Mr. Blackett, the police surgeon of Hyde Park, tells me that in all cases of drowning in the Serpentine frothy fluid is found in the lungs. I attach much importance to the work of scientific observers who have devoted themselves to the study of forensic medicine, for they always work with the consciousness of great responsibility and of their statements being subjected to stringent criticism and cross-examination.

We have, then, arrived at this position: 1. It has been demonstrated that water always is present in animals that have been drowned. 2 I have adduced living cases and Professor Casper and other eminent pathological experts have shown in the dead that the same conditions obtain in man under similar circumstances. 3. I and others have observed and recorded cases in man in which frothy water continued to ooze away from the lungs for a long period during the application of the Marshall Hall method.

---

[1] Lecture I. was published in THE LANCET of June 22nd, 1901, p. 1743.

[2] Brodie's Pathology, p. 88.

[3] Casper's Forensic Medicine, vol. ii., p. 238 et seq., New Sydenham Society's edition.

In 1861 a woman who had been taken out of the Serpentine and treated by the hot bath at the receiving house was taken to St. George's Hospital about one hour afterwards. Mr. Jones, the resident medical officer, stated that on admission "her breathing was fair, with loud rattling noise; her lips were livid, her pulse *very good*, her surface and extremities very cold; she was sensible and able to speak." Warmth and appropriate measures were employed but in half an hour Mr. Jones was suddenly summoned and only arrived to see her draw her last breath. The Marshall Hall method was immediately employed for half an hour without the slightest signs of recovery, but a large quantity of frothy fluid came from the mouth At the post-mortem examination next day it was reported that "both lungs contained an immense quantity of frothy fluid, the bronchi were filled with fluid and injected" In this case the lungs were loaded with, and paralysed by, water. There cannot be a doubt that the Marshall Hall method would have unloaded the lungs, but I cannot doubt, also, that had she been placed on one side on her arrival at the hospital the upper lung would have cleared and acted quite sufficiently to sustain life. A lung containing frothy fluid *does not* clear immediately; the bells of foam must gradually coalesce and ooze slowly away, and to assist this nothing is more adapted than the Marshall Hall method

Dr. T. Trollope of St Leonards was called to a man who had been taken out of the sea The man could speak a little and had vomited a quantity of water, but he rapidly became worse; insensibility ensued, the breathing became slow and faint, and the pulse flickering. The Silvester method was being used and Dr. Trollope persisted in it for some minutes. "Meanwhile," Dr. Trollope reports, "his respiration had ceased, beyond a slight mucous rattle in the wind pipe; his heart's action could not be felt; jaw clenched, and lips livid. ... .. I then, finding these alarming symptoms supervening in spite of the persistence in Dr Silvester's method, immediately had recourse to Dr. Marshall Hall's prone and postural or 'ready' method, and was gratified to find fluid escape from the mouth each time the body was laid on the chest, and respiration gradually set up, commencing with long drawn respirations, or rather gaspings, at intervals. I persevered in the prone and postural movements for three-quarters of an hour, till respiration was thoroughly and satisfactorily established. The man then again vomited between a pint and a quart of water, and was afterwards able to swallow a few tablespoonfuls of tea, and went on satisfactorily." A most characteristic illustration of what must always obtain in such cases.

In March, 1862, I was called to a man who had been knocked into the sea by a heavy chain. On getting him ashore he was believed to be dead, but one of the men thought "they ought to get the water out of him," and so proceeded to roll him from side to side, and whilst this was being done a quantity of water was expelled from the mouth and they perceived some attempt at breathing. A few minutes after this I was on the spot and found the man apparently dying, making occasional and feeble attempts to breathe, with a very feeble and irregular pulse. He was lying on his side with his head upon a coat, and a quantity of froth tinged with blood was lying on the coat in the neighbourhood of his mouth. I observed that clear water and froth welled out of his mouth at the end of every inspiration. Active friction of the limbs, hot bottles, and hot bricks were carefully applied to the body, and ammonia to the nostrils. Nearly an hour elapsed before we thought it possible that he could live. He then began to moan, and in a short time a small quantity of brandy was swallowed and he slowly recovered.

In July, 1864, a man was capsized in a boat at sea After being in the water for some time he was picked up and rowed ashore. On arrival he was cold and livid and was breathing with great labour. He was immediately turned on to his side by the coastguardsmen and a quantity of frothy fluid came from the mouth. He was taken to an inn, where he was kept on his side and where I saw him a quarter of an hour afterwards. He was then breathing with difficulty. A fine white froth, almost like milk, was oozing from his mouth and nose; his face was very livid, and meaningless in expression; his breath was cold; the pulse could not be felt There were a few moist râles in the left side of the chest, the side which was uppermost, but the breathing was tolerably free; the breathing on the side upon which he lay was very feeble and obscure, and moist râles were more abundant. He could not be roused. In half an hour he became a little restless, and then vomited a quantity of sea-water. The pulse could now be felt, but not counted; this gradually improved. Attempts at vomiting supervened, and there was occasionally a partial restoration to consciousness. After another attack of vomiting, the pupils, which had been widely dilated, became contracted, and he went off into a sound sleep. He passed a most trying night from restlessness and pain at the epigastrium, and the next day he was still livid but better and easier. The following day pleuro-pneumonia of the right side (that which was downwards) supervened. From this he slowly recovered.

The following extract from a letter from Mr. T. W. Colbeck of Dover is corroborative and worth relating: "Some years ago I had a case of drowning at the Sailors' Home in which I distinctly made out water to be present in the lungs, as there were loud mucous râles throughout both lungs. After long and persevering efforts with the Marshall Hall method I succeeded in resuscitating the man. During the whole period some water flowed from the mouth, much of it doubtless from the lungs, as it was very frothy. He had a severe attack of broncho pneumonia subsequently and was very ill, but from this he also finally recovered."

On August 11th, 1871, I was summoned to a case of drowning. I found a young man, about 19 years of age, lying on his back on the beach and men engaged rubbing his limbs The face was livid and there was froth about the mouth and nostrils, the eyes were open, the conjunctivæ were congested, and the pupils were dilated and fixed; there was no pulse, no respiration, or other sign of life. On percussion both sides of the chest were dull but less so in the subclavian regions The patient was turned on to his face and a quantity of clear water and froth issued from the mouth and nostrils; he was then turned on to his side and the Marshall Hall method was continued steadily for three quarters of an hour; up to the last a little froth issued from the nostrils when pressure was applied to the spine in the prone position. From time to time I examined the chest, and found the upper (right) lung gradually clear until at last it gave forth quite a natural resonant sound on percussion, whereas the lower lung remained perfectly dull. After using the Marshall Hall method for 10 minutes, when I thought most of the water had come from the upper lung, I had the upper arm (for the patient was kept on one side, the left, the whole time) raised up over the head, in the manner described by Dr. Silvester; more air now appeared to enter the tubes, and froth was, on compression of the thorax when the body was pronated, expelled. I could hear râles in the chest during the artificial respiratory movements. The face became less livid, and this was the only apparent change which occurred during our efforts The temperature of the body was sufficiently preserved by the heat of the sun. I had no galvanic apparatus at hand. On careful inquiry there is no doubt that the patient had been under water for 20 minutes for he was bathing half a mile from the town, and this distance had to be traversed and a boat rowed to the spot before assistance could be afforded. He was found near the bottom face downwards, in a sort of stooping position, and rose readily to the surface when an arm was placed beneath the body.

A case almost identical with the foregoing was under the joint care of Dr. W J Tyson and myself. The young man, aged 20 years, had been in the sea submerged for about the same time, the appearances were similar, a similar treatment was adopted, similar changes took place in the lungs during the treatment and the froth continued to ooze from the mouth about the same length of time. Both cases were carefully observed and although unsuccessful as regards recovery they may fairly be looked upon as experimental and scientifically accurate.

The following case has been kindly supplied to me by Dr. Tyson. A man, aged about 40 years, was brought into the Folkestone Hospital He had fallen into the harbour and was believed to have been in the water for from 10 to 15 minutes. On admission he was very cold and in a collapsed condition. There were feeble attempts at respiration. The Marshall Hall method was immediately applied and continued for 30 minutes During its employment the man was always kept on one side and was turned from face to side from 16 to 20 times in the minute. Sea water of a frothy character escaped from the mouth during each expiratory action for 20 minutes or longer. The man was manifestly better for the treatment adopted, but it was not considered safe to discontinue the artificial respiration for at least half an hour. The man eventually made a good recovery.

These examples, with many others that I could relate, show conclusively that in cases of *drowning in man water does exist in the lungs; that the water only very gradually*, and after a long time, is effectually expelled; and that it is absolutely impossible that efficient relief should be afforded in such a difficulty by the Silvester method alone. In 1863 I advanced another step, and in an experiment on a patient suffering from apoplexy with mucous stertor, demonstrated that it was dangerous to change the position of the patient from one side to the other, as *recommended* by Dr. Marshall Hall; for, after the patient had been lying on one side for a time, the mucus and fluids gravitated into the lowermost lung, and upon the patient being rolled over on to the other side, the mucous fluid found its way across the trachea to the opposite lung, and *on its way* had been whipped into foam by the ingoing air, which foam, *by* filling up the *larger bronchial tubes*, quickly caused suffocation of gradually increasing intensity. Other cases soon after occurred in which I was able, by experiment and by examination of the chest during life, to confirm the above observation, especially in a case of active hæmoptysis in which blood took the place of mucus. Of course, water, *slightly inspissated with* mucus, would necessarily follow the same course as blood on changing the side, and this I have fully proved does take place in cases of drowning. Further, in one case in which I did not allow the side to be changed, pleuro-pneumonia supervened on that side only which had been lowermost. The change of side, therefore, which Dr. Marshall Hall had originally advised to be adopted during the use of his method must on these grounds, *in future, be carefully guarded against.*

I had long become entirely convinced that the prono-lateral positions were the only positions to be depended upon in the management of these cases and that the removal of the tongue and epiglottis from positions of danger was a part of such management. The advice given by the committee in 1862 "to open the mouth and draw the tongue forward" again raised the question of the possibility of treating cases in the supine position. *I would refer to my account of our* experiments in the supine position in 1856 in which some obstruction was encountered in attempting artificial respiration on the dead subject, and I would quote the account of a dissection made by me at the time to ascertain the cause of the obstruction.[4] "On cutting down and removing the right side of the pharynx with corresponding halves of the hyoid bone and thyroid cartilage in another subject a good view of the position of the parts was obtained. The epiglottis was in direct apposition, by its laryngeal surface, with the posterior wall of the pharynx, so as to preclude the possibility of the passage of air. When, however, the head was allowed to hang backwards over the edge of the table, the bending of the cervical vertebræ caused the posterior wall of the pharynx to recede from the epiglottis, so as to allow the free passage of air. If the tongue had been drawn forwards, would the epiglottis have been removed from the pharynx, or would the prone position cause it to fall forwards?" It will be seen by this, and especially by the question asked at the end, that I at that time doubted the propriety of trusting to the pulling forward of the tongue as a remedy.

In my paper on Stertor[5] is another dissection of the pharynx, which besides "demonstrating the respective positions of the tongue with the opened and closed mouth, suggests the necessity of caution being used in raising the head with pillows; for if the head be too much bent forward on the chest the tongue may lie in dangerous proximity to the pharynx even if the mouth is closed." This observation applies to the lateral position in a minor degree, but more especially to the recumbent position; and I never fail to adopt in practice the teachings to be derived from these dissections. I further made sure by experimenting on myself that dragging on the tip of the tongue would not affect its base or the epiglottis sufficiently to make it a trustworthy procedure as it was checked by the frænum, so, as before, I was driven to conclude that nothing could be ever safely trusted as a remedy in apnœa drowning and comatose conditions whilst the patient was supine.

In 1873 Dr. Benjamin Howard[6] of New York presented an essay to the National Lifeboat Institution. In it he says: "The foundation of all true progress in the use of artificial respiration was first well and truly laid by Marshall Hall.' Dr. Howard had employed and taught both the Marshall Hall and Silvester methods, but in trying to obviate some defects which he found in them he took a new line of departure and advocated the employment of what he named the "direct method." He claimed for it greater exchange of air, greater facility and ease of application, and greater facility for the drainage of obstructive fluids, and says of it that it is more easy to be understood. You all doubtless know that this method consists mainly of pressure on the lower ribs in the supine position, the chest being elevated by a roll of clothing underneath the back so that the chest is on a plane inclined towards the head which is now at a lower level. Dr. Howard has shown clearly enough that no doubt should now remain in the professional *mind as to the existence of obstructions in the pharynx*, and that they must be removed and the effectual drainage of the lungs provided for as the first step in the treatment of the apparently drowned. I am not, however, prepared to admit that his method of carrying out the details of artificial respiration is the best possible. His objections to the Silvester method are evident and true, but his objections to the Marshall Hall method are neither evident nor true. In the Marshall Hall *method, slightly modified* to embrace the corrections of experience, we have, I believe, the best of all methods: (1) it is truly a very "ready method", and requires no apparatus; (2) the instructions are easy to be understood by ordinary unprofessional people; (3) on account of the immediate adoption and continued use of the prono-lateral positions this method is more to be trusted than any other for keeping the pharynx clear of obstruction; (4) *it empties the stomach and gradually* clears the lungs of the watery and frothy fluids and will surely and gently introduce sufficient air at each inspiration to take the place of the fluid which has been expressed; (5) the pressure applied to the back when the patient is prone exerts an influence on the heart, the blood is moved onwards towards the lungs which are, by the next movement, opened up to receive it, and thus the right side of the heart and the cerebral vessels are relieved of the engorgement which we know to exist; (6) the safety of the patient is more perfectly secured by keeping him on one side during the whole treatment, one lung being thus kept quite free; and (7) in apnœa, or, after a time, in drowning, when the upper lung is believed to be freed from water and frothy mucus, *if more air is required, it* can be introduced by elevating the upper arm above the head each time the patient is turned on his side, *an addition, in part, of the Silvester to* the Marshall Hall treatment.

A patient in a state of apnœa or syncope with greatly diminished circulation needs but little air for the preservation of life, and in drowning still less, on account of the presence of water in the lungs. It would be better to lay the patient on one side and to trust to nature alone than to have recourse to measures which would cause the forcible inspiration of air before the evacuation of water had been successfully effected. Artificial respiration, although undoubtedly the best and really only remedy when properly applied, becomes a *source of increased danger if used injudiciously and too violently. It is not necessary* in the Marshall Hall method to place a roll of clothing or anything else to elevate the chest when the patient is prone; we found by experiment that elevating the chest, even for a few inches, *when the patient lay on his face, caused expiration.*

You will observe, gentlemen, that I have not alone passed in rapid review the general question of drowning, but I have demonstrated some new principles upon which our future treatment of apnœa from whatever cause should be based—principles not theoretical, but which have stood the test of time and of experiment and have been already many times successfully applied in practice. *As an addendum and as* an illustration of the importance of being quite clear in our deductions from symptoms I will quote an observation made by Sir Benjamin Brodie[7]:—"In some instances, after remaining for a considerable time in a state of coma, *respiration is again suspended; so that if* recovery had been effected in the first instance by means of artificial respiration the animal may be said to die a second time. In others, although sensibility is restored, and with it the power of locomotion, it is only for a time; another attack of coma follows, and this is fatal. These statements are founded chiefly on experiments made on the lower animals, but there is no essential difference between the phenomena which occur in them and in the human subject. The case which I am about to mention justifies this observation. It was communicated to me by Mr. Rose, under whose care the patient was placed. *A boy of the name of William Claridge*, 17 years of age, attempted to hang himself on the evening of the 17th of July, 1820. He was discovered after a short period of suspension (the exact length of the period being unknown) and immediately cut down. He was at this time completely insensible; his face was livid, his lips were of a *dark purple colour, the pupils of his eyes were dilated* and motionless, his pulse not perceptible at the wrist. A pair of bellows being at hand, artificial respiration was immediately had recourse to. In about a quarter of an hour the diaphragm began to act. The artificial respiration was now discontinued. He breathed at irregular intervals, with *stertor*, and a *rattling noise*, from the *air passages being choked with mucus*. The pulse was now perceptible, but often flagging, and the surface of the body was disposed to be cold. The countenance was still of a livid hue, but the breathing became more frequent and regular, and there was also an improvement in the pulse. At the end of another hour an attempt was made to take some blood from the arm, but it was not successful; and from the coldness of the surface of the body it was thought expedient to place him in a warm bath. During the night he continued to breathe; *the stertorous breathing continued*. In the morning a vein was again opened in the arm, and 12 ounces of blood were taken away, but no relief followed. He continued insensible, cold on the surface, and *frothing at the mouth*, and died at the end of 24 hours from the time of his having been cut down. The body was carefully examined. The vessels of the brain seemed to be turgid, with dark coloured blood, but there were no other morbid appearances."

---

[4] Marshall Hall: On Drowning, 1857, pp 65 and 66.

Transactions of the Royal Medical and Chirurgical Society, 1860.

[6] Lifeboat, Feb. 1st, 1873, p. 381.

[7] Brodie's Pathology, p. 70.

The case above related is an instance of what may be called secondary apnœa, and the cause of death is evidently looked upon by Sir Benjamin Brodie as some failure in the nervous system; whereas, from my observation on the causes and course of "mucous stertor," I am led to believe that death ensued in this as in other similar cases from bronchial suffocation, a sort of suffocative bronchitis, from neuro-paralysis from possible injury to the vagus, and that if the patient had been placed on one side and left to nature he might have survived. The patient was almost certainly drowned by his own mucus. With the exception that death in this case was subsequent to hanging and not to drowning it was, in its symptoms, almost identical with the case just related of the woman who had been conveyed from the receiving house on the banks of the Serpentine to St. George's Hospital and had there died from secondary apnœa.

In October, 1889, I was engaged with my assistant, Mr. John Stainer, in investigating the internal anatomy of the porpoise. On cutting into the trachea, which was strong and large (one inch in diameter) and completely surrounded by its cartilaginous rings, I was surprised to find it three parts full of sanguinolent spumous fluid. On squeezing the lungs, more frothy fluid exuded, and with it a number of slender white worms four or five inches in length The lungs themselves were dense and spongy, and here and there were cysts containing worms in embryo. From these conditions I inferred: (1) that the animal had been drowned in the element in which it lived; and (2) that its larynx must be closed or the fluid would have drained away or have been poured out or have evaporated during the many rough handlings the creature *had been subjected to since its death three days before*. Further inquiry and investigation corroborated these assumptions, for the animal had become entangled in a fishing-net deep under the water and was thus deprived of its breathing requirement, air, and brought up dead. On dissecting the pharynx from behind I found that the larynx passed upwards and forwards as a tubular prolongation far into the post-narial cavity and that about one and a half inches below its orifice it was encircled and firmly clasped and closed by the palato-pharyngeus muscle. It would appear that the laryngeal tube was, when in a state of rest, kept closed by this outside sphincter (the palato-pharyngeus), so as to prevent the untimely entrance of water when the animal was beneath the surface of the sea. The tubular portion was composed of the elongated cornicula or cartilages of Santorini above and the epiglottis in front and below, loosely joined together by soft expansile tissue and mucous membrane. The cavities of the mouth and nares were completely separated by the velum palatinum. The fluid extract from the bronchial tubes amounted to six drachms; it was of specific gravity 1026—precisely the same as the sea-water in which the animal had been drowned.

INTESTINAL SUTURE BY MEANS OF CONTINUOUS CATGUT STITCH AND EXCISION OF THE MUCOUS MEMBRANE.[1]

BY H LITTLEWOOD, F.R.C.S. ENG.,

SURGEON TO THE LEEDS INFIRMARY AND LECTURER ON PRACTICAL AND OPERATIVE SURGERY IN THE YORKSHIRE COLLEGE (VICTORIA UNIVERSITY).

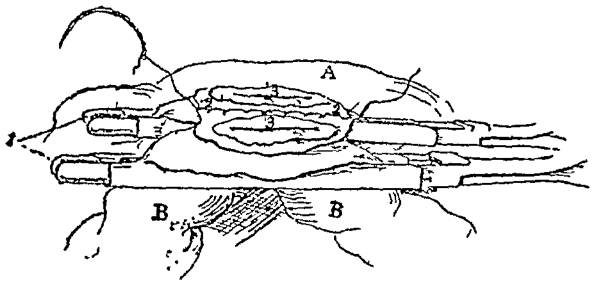
IN surgery, as in many other arts, the nearer we approach simplicity the more nearly do we arrive at perfecting any method, and it is astonishing how many cumbrous and complicated apparatus we have to discard in arriving at simplicity of detail. After the revival of the operation of intestinal suture the earliest methods adopted were by means of a simple suture without the assistance of any special apparatus. Many cases of simple suture were successfully performed, still many were fatal. It was thought that one of the main factors in the success of a case was the duration of an operation. These operations were often performed at a time when the patients were extremely ill, when the disease from which they were suffering was far advanced, and when the methods of combating shock were not so well understood as they are at the present time, so that many appliances to expedite the operation were invented, beginning with Senn's plates and ending, so far as the present is concerned, with Murphy's button and La Place's forceps. Now the operations are done earlier, when the patients are better able to stand them, and we have many ways of combating shock—heated operating tables, strychnia in large doses, hypodermics of camphor and brandy, and large saline injections either into the veins, the cellular tissues, or the rectum; or if we are operating on cases of acute intestinal obstruction the obstruction is first relieved by means of a Paul's tube. This intestinal drainage relieves the obstruction and prevents any further intestinal toxæmia, so that at the end of two or three weeks the more serious operations of enterectomy or lateral anastomosis can be performed with a very good chance of success. At the present time many surgeons have reverted to the earlier practice and have abandoned the use of any special apparatus, and I am amongst those who believe that all accessory apparatus for intestinal suture will ultimately be discarded and that we shall rely on our fingers, the forceps, and needles and sutures. It is with this object that I wish to describe the method which I have lately adopted for intestinal suture in gastro-enterostomy, enterectomy, &c. During the last session of the Leeds and West Riding Medico-Chirurgical Society Mr. W. H. Brown read the notes of a very interesting case of gastro-enterostomy in which the opening had closed, necessitating a second operation which had been successful. Just before this I had witnessed the post-mortem examination of a fatal case of gastro-enterostomy in which the opening had become almost entirely closed by the union of the cut edges of the mucosa On thinking over these cases I determined to carry out the *following* details in performing intestinal suture. I venture to think that the method which I am advocating is worthy of further trial. I have done three successful colectomies and seven or eight gastro-enterostomies.

Gastro enterostomy —The abdomen is opened in the middle line, a suitable portion of the stomach is selected (either the anterior or posterior wall), and a loop of jejunum. These are now emptied and clamped by means of Doyen's pedicle forceps, the blades of which are covered with indiarubber tubing, and are held by an assistant so that the portion of the stomach and bowel to be operated on are in close apposition. The parts are surrounded with strips of gauze or flat swabs. An incision about one and a half inches in length is now made into the stomach and bowel through all the coats down to the mucosa, and then with a pair of ophthalmic scissors and forceps the coats all round are separated from the mucosa for a short distance, so that a broad surface of all these coats may be brought into contact. The posterior edge of the stomach incision is now stitched to its full extent to a similar portion of the bowel with chromic gut by means of a small curved Hagedorn's needle, the suture is knotted at both ends, and left long (Fig. 1). An elliptical portion of the mucous membrane is now excised from the stomach and a similar portion from the bowel and the parts are cleansed. The cut edges of the mucous membranes are now stitched the whole way round by a continuous stitch of catgut, knotting it at the two extremities of the openings so as to prevent its drawing too tightly and narrowing the opening. This done the anterior edges of the incisions into the stomach and bowel through the remaining coats are united by a continuous stitch, the same suture which was left long after uniting the posterior edges (Fig. 2). I am not careful to bring serous coat to serous coat, but I rather prefer to bring the deeper layers into apposition. The clamps are then removed. As a rule there is no bleeding—the stitching prevents this. It is important not to pull the stitches too tightly. The gauze is removed and the abdomen is closed. The actual cutting and stitching can easily be done in from 10 to 15 minutes.

---

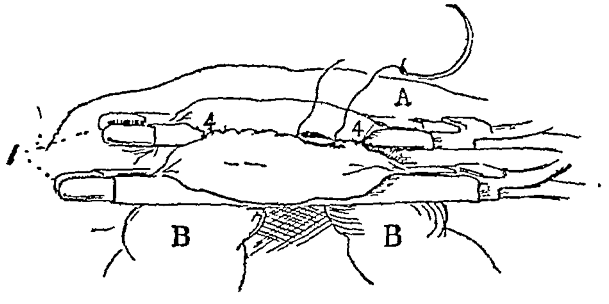
[1] A paper read before the Leeds and West Riding Medico-Chirurgical Society on Oct. 19th, 1900.

FIG. 1.



1, Doyen's forceps covered with rubber tubing clamping. A, Stomach. B, Jejunum. 2, Posterior edges of sero-muscular coats united with continuous catgut suture. 3, Mucous membrane excised from stomach and jejunum.

FIG. 2.



4, Anterior edges of sero-muscular coats united with a continuous catgut suture, the edges of the mucous coats having been sutured in a similar manner. 1 and A and B refer as in Fig. 1.

Enterectomy.—In doing enterectomy I perform a very similar operation. The parts to be excised are clamped above and below with Doyen's clamps and are removed with scissors. A portion of mucous membrane is excised so that it retracts beyond the cut edges of the other coats. This leaves a good broad surface for stitching. The two cut ends are approximated by the clamps and they are then closed by continuous catgut stitches in the same way as for gastro-enterostomy. Half the lumen, consisting of all the coats with the exception of the mucosa, is first stitched and fastened, then the mucous membrane the whole way round, interrupting and knotting the stitches in two places, and finally the remainder of the coats are sutured. The clamps are removed and the cut surfaces of the mesentery are approximated by interrupted sutures. The long handles of the clamps enable them to be held in such a manner that the hands of the assistant are well away from the field of operation.

I am indebted to my late house surgeon, Mr. F. Talbot, for the drawings.

Leeds.

A CASE OF ECTOPIC GESTATION WITH SEPTIC INFECTION OF THE GESTATION SAC.[1]

BY H. MACNAUGHTON-JONES, M.D., M.A.O., F.R.C.S. IREL. & EDIN.

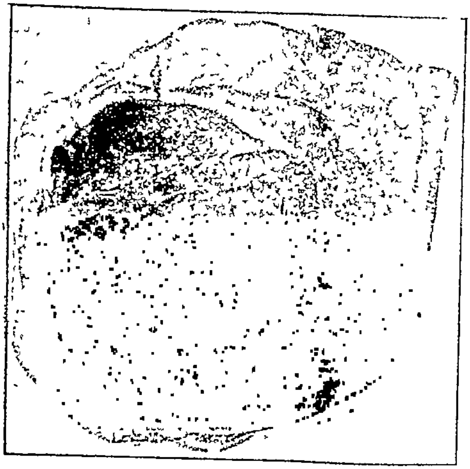
A PATIENT, aged 30 years, was seen by me in consultation with Dr. Alexander McDonnell of Stamford-hill towards the end of March, 1901. She had been married nine years, her only pregnancy being one at the close of the first year. The periods had been normal and regular up to Nov. 24th, 1900. On different occasions she had been treated for retroversion and prolapse of the uterus. On Dec. 10th, 1900, she was attacked with violent abdominal pain which passed off but recurred on Jan. 10th, 1901. The catamenia appeared on Jan. 24th. On the 29th there was a recurrence of the severe pain, which lasted for three days, when she passed from the vagina what she described as "a yellowish pink substance somewhat like the roe of a mackerel." She remained in bed for a fortnight and on Feb. 10th was able to go out of doors. On the 25th she was attacked with severe hæmorrhage, and again she passed portions of the same substance as before. Hæmorrhage and pain ceased until March 11th, when the former again recurred. On examination I found a fairly large tumour behind the uterus and associated with it, the uterine cavity being some two and three-quarter inches in length. Believing with Dr. McDonnell the case to be one of ectopic gestation and having regard to the size of the mass and the presence of adhesions, abdominal cœliotomy was determined upon and the operation was performed on April 1st. The adhesions were separated with but little trouble, but in the delivery of the sac through the enlarged abdominal incision a portion of the thin wall ruptured and some extremely fœtid fluid escaped, creating at the time quite a stench. The pelvic cavity was repeatedly cleansed with weak formalin solution, and as the bowel was well protected from the sac the only parts really affected, and this was unavoidable, were the margins of the wound. These latter were well wiped with 1 in 1000 of formalin before being closed, and an iodoform gauze drain was left in. There was nothing unusual in the course of the case for 48 hours, when the temperature rose to over 100° F. and the patient commenced to vomit. This, however, was controlled by an effervescing mixture. Sulphate of magnesia and calomel were given, both being retained, but without any result. Still, the temperature did not again reach 100°, nor did the pulse exceed 96 up to the fourth day. In the afternoon of that day, as the abdomen was distended and there was no result with enemata, while the vomiting recurred and the countenance did not improve, the pulse reaching 110, I determined to reopen the abdomen. On doing so I found the atonic bowel to be considerably distended but could not detect any kink or cause for obstruction. The pelvic cavity was quite free from any fluid and there was no evidence of any peritonitis or of infection of the peritoneum, but the margins of the abdominal wound showed a dense slough for its entire extent. There had been no indication of this from the appearance of the incision. The patient had complained of little or no pain from the time of the operation. The slough at either side was cleared off as far as possible and a drainage tube was inserted. As I had to leave home the same night Mr. Targett kindly took charge of the case for me. The temperature fell the next day to normal, but again it rose to 100° in the evening, the pulse becoming more rapid (from 120 to 140) with a return of the vomiting. Despite every means employed to combat the sickness and maintain her strength, including enemata, saline injections, washing out of the stomach, &c., death occurred on the seventh day after operation.

---

[1] A paper read before the British Gynæcological Society on June 13th, 1901.

In this case the temperature never exceeded 100 2° F. and there was an absence of the usual symptoms of general peritonitis. Mr. Targett reported of the specimen that it consisted of the right uterine appendages and a gestation sac, the latter being inclosed within the outer end of a dilated Fallopian tube :—

On section the wall of the gestation sac was found to be infiltrated with blood clot and fibrin, as in a tubal mole. Where suppuration has occurred the placental tissue is separated from the inflamed tube by pus, and chorionic villi are in actual contact with the inflammatory products. The mucous membrane of the tube is destroyed and replaced by granulation tissue. The tumour is roughly spherical in shape and measures 8 × 7 × 6 centimetres (3¼ × 2¾ × 2¼ inches) in its chief diameters after fixation in formalin. A portion of the posterior wall of the mass has been removed and reveals two cavities. The larger of these [illegible] is a space [illegible] Fallopian [illegible] with very [illegible] nearest to the uterus is the right ovary. The characters of the gestation sac are precisely those of an apoplectic or blighted ovum. It [illegible] mouth. The suppurating cavity, semilunar in shape, represents that part of the dilated ampulla of the tube not occupied by the gestation sac. From this relation it would appear that the tubal gestation had ended in a molar pregnancy or apoplectic ovum, and that secondary suppuration had been set up within the dilated tube and around the ovum. Consequently the pus had collected in that internal cavity which always surrounds a tubal mole owing to the ovum being adherent at only one spot upon the wall of the dilated tube.



Gestation sac with fœtus ; the upper cavity shown in the drawing is that in which the septic fluid was contained.

It would seem that the source of infection must have been through the adherent bowel. The patient having suffered from retroversion of the uterus the early symptoms might naturally lead to the impression that it was an enlarged retroverted and gravid uterus and tend to make the diagnosis less certain. From the size of the tumour and the impression which it conveyed of fixation by adhesions I determined on the abdominal operation, though, as events proved, considering the nature of the sac, the vaginal one would have been the safest one for the patient. Had I a similar case again, with rupture of a fœtid sac, having protected the bowel I should first char the margins of the abdominal wound with the thermo-cautery, and then at some distance from the charred surfaces make a new incision at either side before closing the wound. Not long since I opened the abdomen for a large and very fœtid subperitoneal abscess which had penetrated the peritoneum. Having evacuated the pus and thoroughly cleansed out the abdominal cavity with formalin, disinfecting the edges of the wound, which were covered by a foul and deep slough, I removed this at either side before bringing the edges together and drained. Contrary to my expectation the patient made an excellent recovery.

Harley-street, W.

ARE NOT SOME PATIENTS SAID TO BE AFFLICTED WITH GASTRIC ULCER REALLY SUFFERING FROM A DIFFERENT DISEASE?

BY W. HALE WHITE, M.D., F R.C.P. LOND.,
PHYSICIAN TO, AND LECTURER ON MEDICINE AT, GUY'S HOSPITAL.

IT is allowed that the malady commonly diagnosed as gastric ulcer is very much more common in women than in men; also that many more cases in women occur in the two decades from 20 to 40 than in any other two decades, whilst in men the disease is commoner later in life. Further, the mortality in men is higher than in women. For instance, Dr. R. Saundby has stated[1] that among 15 deaths at the Birmingham General Hospital due to gastric ulcer 11 occurred in men and four in women, a striking contrast when we remember the greater frequency of the diagnosis of gastric ulcer in women. Because of these facts I have for years been accustomed to teach that one of two conclusions must follow: either the outlook of gastric ulcer in women is much more favourable than it is in men, or many cases occurring in women and classified as gastric ulcer at the bedside are really instances of some other undescribed malady. I have also maintained that the second is the more likely view, for it relieves us of the difficulty of explaining the otherwise obscure facts that so called gastric ulcer is at its maximum frequency earlier in women than in men and is commoner in women than in men, although actually more fatal in men, and this view renders it more easy to understand why the condition diagnosed as gastric ulcer is so frequently associated with chlorosis, for this disease is almost confined to women and is met with at about the same time of life as that at which the diagnosis of gastric ulcer is most frequently made. I have therefore often suggested that there is a disease met with chiefly, or perhaps only, in women usually between 20 and 40 years old; that its chief symptoms are gastric pain, nausea, sickness, and hæmatemesis, that these symptoms are not dependent upon ulceration of the stomach, any ulceration that may be present being quite superficial and no more than might occur secondarily to the hæmorrhage; and that the diagnosis from genuine gastric ulcer occurring in women is very difficult, yet the facts that in spite of serious gastric symptoms extending over years the patient is not wasted, has been or is often chlorotic, and has none of the mechanical effects of gastric ulcer, such as adhesions, pyloric stenosis, or subphrenic abscess, may help us to a right conclusion.

The prognosis is entirely different from that of gastric ulcer, for, apart from hæmorrhage, these patients are not liable to the numerous serious complications of gastric ulcer. The prognosis is good, although relapses are frequent. Occasionally, but excessively rarely, the sufferers may die from hæmorrhage, and then no cause for it is found. The disease is in many cases, I apprehend, closely related to chlorosis, for it certainly is often associated with it or occurs in those who have formerly suffered from chlorosis, but it may, I think, exist apart from chlorosis. Until we know something of the cause of chlorosis we can hardly hope to know what the association is. I have not hitherto liked to put this view on paper for want of direct evidence in its favour, but now that surgeons have taken to opening the stomach for severe bleeding some support is forthcoming. Operators are already accustomed not to find an ulcer even when the hæmorrhage has been severe. Thus Mayo Robson[2] says: "If no ulcer be found anywhere and the bleeding proves to be capillary or from small undiscoverable ulcers." I take it that here we may assume that if the ulcer proves to be undiscoverable no ulcer exists. My proposition seems also to be supported by the following quotation from Mayo Robson[3]: "Erosions.—Of these Dieulafoy has described two varieties: (*a*) simple erosions, consisting apparently of mere abrasions of the surface epithelium, which, though so small as to be scarcely perceptible to the naked eye, may give rise to the most alarming hæmorrhage. On the post mortem table abrasions of this kind may be easily overlooked, but as seen when hæmorrhage is going on the mucous membrane seems to be studded with numerous bleeding points." This surely is a different disease from that which we know to be gastric ulcer, with its possible sequelæ of adhesions, sub diaphragmatic abscess, and other well-known complications, and it is surely more likely that the abrasions were the result, rather than the cause, of the hæmorrhage.

---

[1] Brit. Med. Jour., vol. ii., 1900, p. 1613.
[2] THE LANCET, March 10th, 1900, p. 623.
[3] Brit. Med. Jour., Feb. 2nd, 1901, p. 257.

Byrom Bramwell[4] does not go so far as the proposition I am urging, but he does go as far as to say, "I am disposed to think that gastric ulcer in the young (chlorotic) female is on the whole a less serious and fatal disease than in men," and he proceeds to suggest that the reason is that in young chlorotic women the ulceration is superficial. I would go further and say that probably many of these cases in women are examples of a different disease, and I would suggest that as the ulceration even if present is superficial and trifling it may be secondary to the hæmorrhage. In other words, that the essence of the disease is not ulceration but a liability to gastric hæmorrhage independent of ulceration.

Dr. Newton Pitt kindly allows me to refer to a patient under his care, as she illustrates my point. She was a woman, aged 37 years, who for seven years had been liable to attacks of gastric pain, vomiting, and hæmatemesis. She was admitted into Guy's Hospital blanched and collapsed and died from hæmatemesis. The most careful examination at the necropsy failed to detect any source for the blood. The stomach was sent to the museum and the curator, Dr. Lauriston Shaw, failed to find any lesion of it.

Dr. Frederick Taylor also kindly allows me to mention the case of a woman who was admitted into Guy's Hospital under his care. She had for several years been seen by Dr. Lauriston Shaw as an out-patient for gastric pain, vomiting, and hæmatemesis The stomach was opened but no ulcer or source for the hæmorrhage could be found. The patient made an excellent recovery.

Cases can also be quoted from literature in support of my view. Thus Hirsch[5] records the case of a female domestic servant, 25 years old, who suffered from pain, vomiting, and hæmatemesis. The stomach was opened and as no ulcer could be found it was sewn up. The patient recovered completely. Armstrong[6] records the case of a woman, aged 35 years, in whom there was no definite evidence of ulceration, although the hæmatemesis was severe. The author reports that "no deep excavated ulcer was found, but blood was seen oozing from three different places which looked like linear fissures in two cases and in the third like a stellate fissure. Around the fissures over an area of one centimetre there was an apparent loss of superficial epithelium." Here certainly there was no definite ulceration; the changes, if they existed, were no more than might be produced by blood in bursting through the epithelium. Mansell Moullin[7] records the case of a woman, aged 34 years, whose stomach was opened on account of severe hæmatemesis. He says: "One very small bleeding point was found on the posterior wall of the stomach near the pylorus. It could scarcely be called an ulcer." Both Armstrong's and Mansell Moullin's cases, like that of Hirsch, recovered completely. Gilford[8] operated on a woman, aged 30 years, who had suffered severely from hæmatemesis for 15 days. Although there had been hæmorrhage all this time and the stomach was most carefully examined both inside and out no trace of an ulcer could be seen. She died nine days after the operation and then an ulcer three centimetres in diameter was found. This, Gilford says, was in a position in which it could not have been missed during the operation, and therefore this case is an example of severe hæmorrhage lasting 15 days, and yet when the stomach was examined with the greatest care no ulceration could be found. It does not by any means prove that the disease which I am describing naturally proceeds to ulceration; all it shows is that it may do so after the manipulation necessary to search for an ulcer. If subsequent experience should confirm this it clearly becomes important to diagnose, before operating, whether the blood proceeds from an actual ulcer.

As I have already mentioned, when the ulceration found by those who are earnestly seeking for it is trifling and superficial it is quite possible that it is the result of the hæmorrhage, for blood coming from the vessels into the cavity would naturally tear the epithelium. Thus Gilford quotes from Weir and Foote two fatal cases; in both the ulcer was so minute that it was difficult to find it when the whole stomach was spread out in a good light. In one of the cases its presence was positively shown only by transmitted light.

It has always seemed to me that as chlorosis is virtually confined to women at a period of high sexual activity the disease must be in some way connected with the function of reproduction, and I would suggest that the disease which I am urging should be separated from gastric ulcer is perhaps so connected, and in support of this I may recall the fact that many have considered that hæmatemesis may be vicarious menstruation and also the fact that these female sufferers may repeatedly come under observation for pain after food and hæmatemesis, but these symptoms wear themselves out before the menopause. Also, the association of this gastric ailment with chlorosis may, perhaps, be the reason for the frequency of the association of dyspepsia with chlorosis, for it may be that chlorotic dyspepsia is only a mild form of the same malady as causes severe pain after food and hæmatemesis, and in favour of this view I think it may be urged that severe dyspeptic symptoms are commoner with chlorosis than with other anæmias. My late house physician, Dr. A. E. Salter, acting on the views here expressed, has treated a large number of so-called gastric ulcers in young women with iron and good food and he finds that the patients do much better on this than on the usual treatment.

Lastly, I would call attention to the importance of separating gastric ulcer proper from this disorder, for the surgeon may find after he has opened the stomach that he can do nothing to control the hæmorrhage; some cases have died after operation, but the condition is of itself very rarely fatal. It is difficult to see how anything but harm can follow operation when the mucous membrane is studded with bleeding points; and, indeed, Mayo Robson[9] says: "Although the operative treatment of parenchymatous or capillary hæmorrhage by any surgical method would seem to be of doubtful value," and then he refers to five cases which died.

Harley-street, W.

FOREIGN BODY IN THE BRONCHUS; TRACHEOTOMY; RECOVERY.

By F. B. JUDGE-BALDWIN, M.R.C.S. ENG.,
SURGEON TO ROTHERHAM HOSPITAL.

IN following the history of foreign bodies in the bronchi the interest centres in the treatment, and that universally recommended is tracheotomy. This operation is called for firstly to lessen the danger from glottic spasm in the event of the foreign body moving and being coughed up; and, secondly, to afford a supplementary outlet for the foreign body itself. The further treatment consists in waiting for the development in the lung and dealing by direct operation with the possible—and probable—abscess that may arise. The following case adds one to the number of successes.

On Oct. 9th, 1900, a boy, aged five years, a very intelligent child, was coming home from school when he picked up a beech-nut, cracked it, put it into his mouth, and almost immediately began to choke. When met by a friend a few minutes afterwards he was still choking, his eyes were suffused, and his face was reddish-blue in colour. About an hour or so afterwards he was brought to my house because his voice "had gone husky." The breathing was rapid, averaging from 25 to 30 respirations per minute, with some stridor, and with whispering speech, though the speech was occasionally clear and the breathing free from stridor. I examined the larynx with the laryngoscope and found nearly complete bilateral paralysis of the adductors—i.e., the crico-arytænoidei laterales and arytænoideus—but no foreign body could be seen. The trachea was clear for some four or five rings and was not unduly vascular. On stripping the patient and examining his chest I found considerable deficiency of respiration on the left side over an area of the size of a five shilling piece, situated over the third rib about midway between the anterior axillary fold and the sternum, or rather nearer the former—in fact, the place of early phthisical development The respiration of the other lung was unduly exaggerated and the chest was heaving with insuction of the episternal and substernal spaces I sent him home with orders for him to be kept quiet in a warm room I saw the patient on the next morning when the respirations had increased to 32 per minute, the chest giving the same signs I suggested a second opinion and the patient was seen by Mr R J Pye Smith of Sheffield who gave the same opinion as myself We both agreed that tracheotomy was the proper treatment, but was not immediately necessary unless urgent symptoms should arise The same night I was called on account of a spasm which had subsided before my arrival Subsequently during the night the boy had further difficulty of breathing at intervals, but he slept when he was not so disturbed The next day I reported the condition to the consultant and it was decided to do the operation the same night (In passing, I might mention that the child's friends had turned him upside down during the night and had patted his back—a course I had not dared to venture upon He was very sick, but no foreign body was brought up)

---

[4] THE LANCET, March 9th, 1901, p 688.
[5] Berliner Klinische Wochenschrift, 1896, p. 847.
[6] Brit. Med. Jour., vol ii, 1899, p 1088.
[7] THE LANCET, Oct. 20th, 1900, p. 1126.
[8] Guy's Hospital Reports, vol. liii.
[9] THE LANCET, March 9th, 1901, p. 688.

Before operation, which was performed at 6 P M on the 11th, the patient's temperature was 100° F , the pulse was 80, and the respirations were 40 The condition of the vocal cords did not appear to be a happy one for the administration of chloroform, and everything, therefore, was close at hand in readiness for an emergency which after a few whiffs of the anæsthetic duly occurred in the form of spasm and cessation of breathing, with coldness of the extremities Mr Pye-Smith quickly finished the operation, but even when the trachea was well opened no respiratory act ensued until after artificial respiration had been continued for some time The bronchi on the left side of the chest were well searched with long forceps, but nothing could be found The boy was then held up by the heels and some blood from the bronchi ran out A large tracheotomy tube was then put in and the opening in the trachea was further kept open by silver sutures with a loop through the cartilages, brought round and tied round the neck behind The boy was then put back to bed , he was warm and of good colour Three hours afterwards he was dozing The temperature was 100 8°, the pulse was 80, and the respirations were 40

At 6 A M on the 12th the patient was collapsed , his temperature was 101 8°, his pulse was 92, and his respirations were 44, with Cheyne Stokes breathing The tube was removed and cleaned There was considerable pain in the abdomen Milk and a sedative draught were given At 10 A M the boy was more comfortable , the bad symptoms were subsiding and he had slept 45 minutes The temperature was 101 4°, the pulse was 88 and the respirations were 40 The patient slept for eight hours during the night after coughing up much glairy mucus The temperature on the 13th was 100°, the pulse was 94, and the respirations were 36 Three days after operation (on the 14th) fluid food was taken well Some green tenacious mucus was coughed up The temperature was 99°, the pulse was 100 and the respirations were 32 On the 16th the patient had a comfortable day and night The stools were examined but no nut was found The temperature was 98 4°, the pulse was 100, and the respirations were 30 On the 17th the voice passed from a whisper, the respirations being 28 At 9 A M on the 18th two small bits of the husk of the beech nut were found on the dressing over the tube, which was removed The temperature was 99°, the pulse was 90, and the respirations were 28 On the 20th the temperature was 98°, the pulse was 96 and the respirations were 24 The chest was examined on the 22nd, when respiratory and vocal sounds were found to be deficient in the left lung over the pectoralis major close to the axillary border, otherwise the chest was clearing of rhonchi and sibilli which had been present since the operation The wound was healthy and the wires were removed On the 28th the patient came downstairs for the first time, his temperature being 97°, his pulse 84, and his respirations 20 The wound in the neck was not quite healed, but the boy was apparently well Since this time the chest has slowly cleared, but considerable weakness remained for some time At present one may say that nothing remains to remind him of his adventure but the scar of the tracheotomy wound

The interesting points of the case are, to my mind, the following It is well known that in children paralysis of the adductors takes place from slight causes, and on the face of it I was inclined to question the fact that a portion of the nut had gone into a bronchus Again, the condition of the child as to "cold" and possible false croup antecedent to the accident could only be cleared up by the friends, and as the patient had once before had some false croup a cold might easily be overlooked if not severe, while his general condition would favour croup These points must pass through the mind when considering the treatment and they were duly balanced The only direct evidence was that of the boy, that he had cracked a nut and had tried to swallow it The sudden oncoming of the attack favoured the presence of a foreign body and the treatment was subsequently proved to have been correct by the small bits of husk coughed up on the dressing I consider that the success of the treatment in this case was due in a great measure to the excellent nursing which the boy obtained

Rotherham

THREE CASES OF PUERPERAL ECLAMPSIA, WITH CRITICAL NOTES ON THE ETIOLOGY, PATHOLOGY, PROGNOSIS, AND TREATMENT.

BY J POLLOCK SIMPSON, M D GLASG

PUERPERAL eclampsia occurs so rarely in the experience of the private practitioner that it is desirable that all cases met with in practice should be put on record This may add to the value of experience already gained and may stimulate others to more careful and accurate observation by systematically examining the urine, which is the chief means we have of ascertaining the severity of the case, separating the para globulin from the serum albumin, and noting the relationship between the two as to quantity Herman has shown that the quantity of the former is greater in those cases where the patients recover, while in the cases of those who die the quantity of serum albumin is in excess

As regards the etiology of this disease many theories and hypotheses have been put forward to account for the convulsions—e g , the convulsions are the cause of the albuminuria—but in two of the cases described below (Case 2 and Case 3) I discovered the albuminuria before the convulsions were established—in Case 2 nearly three weeks before the eclampsia occurred and before delivery, and in Case 3 three days previously to delivery and the convulsions Of recent years a toxæmia or uræmia has usually been believed to be the true cause of this complication of the parturient state, at all events the convulsions are attended by a great *decrease in the elimination of* urea Whether urea is the actual excitant of the nerve centres or whether the excitant is a product of decomposition derived from urea has not been satisfactorily explained, but the uræmic theory finds the largest amount of support The accumulation of the toxins in the blood is due to the faulty elimination by the kidneys of the urea or waste products of *tissue metabolism* which are much increased in the pregnant state In nephritis these waste products accumulate rapidly, but pressure also contributes largely, and it is mostly in primiparous cases, where pressure and tension are greatest, that eclampsia occurs According to statistics 60 per cent of the cases of eclampsia occur in primiparæ Constipation, which is the rule in pregnancy, contributes in a great measure to this pathological condition

The following cases occurred in a busy practice with no assistance from trained nursing, as the patients belonged to the working class Notwithstanding the absence of those delicate attentions from a trained nurse—e g , passing the catheter and measuring the urine—so necessary to exact scientific observation and deduction, the patients all recovered and only one child was lost (in Case 1, which occurred at the seventh month) Nevertheless these cases have a value of their own, as in one case I was able to follow the history of the patient up to her second confinement with still a trace of albumin in her urine without any untoward symptom and she made a good recovery, In Case 1 the eclampsia was antepartum, in Case 2 it occurred in the second stage of labour, while in Case 3 the eclampsia was post partum following the delivery of twins In all the cases the result was successful and justified the treatment adopted.

Case 1.—The patient was a primipara, aged 23 years. I was asked to see her on Nov. 3rd, 1884, as she was said to be in a fit, which, however, had passed off by the time I reached her. She was seven months pregnant with her first child. On questioning her I found that she had gone out the previous day and had come home wet and with damp feet. Cold shivers had set in, so much so that the bed, as she said, shook under her. This was succeeded by violent headache, which the patient described as if the top of her head was being lifted off and on. On the day of my visit her face was noticed to be swollen; her legs were also slightly swollen, but later they became very brawny, especially after her convulsive seizure. She could not recall any of the events of the day. I put her on a mixture of bromide of potassium and chloral hydrate. Next day (the 4th) she had four or five slighter seizures and did not feel at all well; indeed, she was so ill that the question of induction of labour was discussed, but this was put off till the morning of the 7th, when she had the premonitory symptoms of another seizure, for which chloral hydrate (20 grains) was given, and then I introduced an ordinary gum elastic bougie into the uterus and allowed it to remain *in situ* till labour pains began, nine hours after its introduction, at intervals of 15 minutes. Next day the pains were rather better and I withdrew the bougie. In the evening there was a slight show of mucus when I made a vaginal examination and found the bag of membranes protruding between the lips of the os, which was of the size of a florin, but as the pains were not very vigorous I re-inserted the bougie which accelerated the pains considerably. I was called at 5 30 A M. on the 9th and found on examination per vaginam that the membranes were ruptured and that the breech was presenting at the vulva. I completed the labour, the child being dead when delivered, and the placenta was easily expelled by expression. The child proved to be a female of seven months. The urine on the third day was very scanty and highly albuminous. Its specific gravity, taken on the fourth day, was 1012, and after delivery on the 9th 1020, on the 10th 1023, and on the 12th 1030. The swelling of the face and legs disappeared rapidly after delivery, but the urine was still loaded with albumin on the 12th, otherwise the patient made a good recovery, only complaining of backache and occasionally slight headache. On March 27th, 1885, she was put on tincture of perchloride of iron (five minims), which she continued to take for nine months off and on, but the albumin had not quite disappeared, amounting to a well-marked ring, at her second confinement, which occurred on March 6th, 1886, when she was delivered of a fine, healthy boy without a bad symptom. There was no tendency to flooding either at the first or second confinement, which Spiegelberg says is usual.

Case 2.—The patient was a primipara, aged 21 years. On March 3rd, 1886, I received a communication about this patient relative to the swelling of her legs and feet. I found her complaining of occasional headache, dimness of vision, and giddiness. The urine was scanty, but there was no pain on passing it. She had not noticed any swelling of her face or puffiness, but her mother had noticed it to exist underneath the eyes. She ate heartily, enjoyed her food, and slept well. She had been sick two days previously for the first time since becoming pregnant. The urine was light-amber-coloured, and on testing it with nitric acid it was found to be loaded with albumin. The specific gravity was not noted. I put her on tincture of perchloride of iron and solution of acetate of ammonia. On the 13th the specific gravity of the urine was 1020, and it was loaded with albumin. The swelling of the legs was much the same, but the patient's sensations were better, and she thought that the medicine had removed her headache. I received a message on the 22nd to say that she was in labour. On arrival, at 10.50 A M., I found her walking about; the pains were infrequent and not very strong. On examination per vaginam I found the os nearly fully dilated, with a head presentation; the membranes were ruptured and the waters had drained away. She complained of headache. The bowels were open. At 2 P.M. the labour was more advanced; the anterior lip of the os was very œdematous. The patient still complained of headache. At 3 45 P M. the vertex was much lower. As she was lying on the bed I noticed a slight twitching of the right arm which her sister, who was nursing her, thought was shivering, but I at once saw that she was going to have a convulsive seizure. I seized my forceps at once, but before I had time to apply them she was in a strong convulsive fit, her face being drawn up into a sardonic grin; she was blue in the face and struggling for her breath, every moment appearing as if it was to be her last. I at length got the forceps adjusted with little effort and proceeded to extract the child as quickly as safety would permit. By the time I had the head extracted the worst part of the fit had passed off, and I extracted the trunk easily by pressure on the fundus. The child was a female; she was strong and vigorous and cried lustily. The placenta was easily expressed. The patient, having recovered somewhat from the fit, complained loudly of pain. She was semi-conscious, there was no excessive hæmorrhage, and the pulse was 120. When I left her, half an hour after delivery, she knew who I was, but the headache was still severe. I immediately received a message to the effect that she was in another fit; but on my arrival it had passed off, and she was quite rational. This seizure was not quite so strong as the first. I called at 11 P M., and found that she had had another fit which had lasted for 10 minutes, but that she had had two hours' sleep since, and she was still sleeping at the time of my visit. The pulse was 115. On the 23rd at my visit, the patient was asleep. The pulse was 112, the face was puffy and swollen, and she complained of severe vertical headache. She had passed no urine since delivery; I therefore drew off one and a half pints of urine, which was straw-coloured, and she felt easier. At 11 30 P M. the patient was awake and cheerful, the pulse being 114 and feeble. I drew off about a pint of urine. On the 24th she expressed herself as feeling better. Her headache was less and she passed a considerable amount of urine which was paler in colour, with a good deal of sediment (urates). The lochia were not offensive. The pulse was 102. The specific gravity of the urine was 1025; on boiling it, it became almost solid, it contained crystals of urate of soda and tube-casts in abundance, both granular and hyaline. At 11 P.M. the patient was better, her headache being only slight, and she partook of nourishment freely, her pulse being 107. On the 25th the pulse was 106, the temperature was 101·8° F., and the general condition was good. The bowels were relieved at 11.45 P.M., when the pulse was 100 and the temperature was 100·4°. On the 26th the headache was more frontal, the pulse being 105, the temperature 100°, and the lochia were slightly offensive. Headache was still persistent on the 27th, when the pulse was 99 and the temperature was practically normal. The specific gravity of the urine was 1028 and the albumin was greatly diminished. On the 29th the patient had a relapse from having got out of bed, and there was a tendency to syncope. The pulse was 105, and the temperature was 99·4°. The urine was scanty and there was an increase of albumin. Its specific gravity was 1030; it was darker in colour and it had a smoky appearance. On the 30th the headache was still persistent, the pulse being 106, and the temperature 99·8°. From this time on till April 30th, when I ceased to visit her, the patient's condition varied. She would have headache one day which was gone the next. The temperature was variable as well as the urine, which at my last visit still contained a trace of albumin, its specific gravity being 1020.

Case 3.—The patient was a primipara, aged 23 years, who was delivered of twins on Oct. 21st, 1894. Three weeks before this occurrence the patient had noticed some swelling in her feet and legs, but she took no particular notice of it as she thought that it might be due to the pressure of the child. On the 18th she had noticed for the first time that her face was swelling. On the 20th I examined a specimen of urine and found it to be loaded with albumin and solid on boiling; its specific gravity was 1025. On the 21st I received a message to attend the patient. On arrival I found, on examination per vaginam, the os to be of the size of a crown-piece. The waters had all drained away. The case proceeded slowly for five hours when the vertex was on the perineum, and as the pains were feeble I applied forceps and extracted the head easily and without the signs of a convulsive seizure. When the child was fully born I discovered a second child in utero. As the bag of waters protruded through the vulva I ruptured it and extracted the second child in the same manner, the after-birth following quickly by slight expression without any signs of convulsions, and I began to think that the worst was over. The pulse was 136 and the temperature was 100·8° F. About one and a half hours after leaving her the husband called to say that she had been having fits almost from the time that I had left her. I prescribed a draught containing chloral hydrate and bromide of potassium, and as I had another primiparous case in hand I left her, my assistant watching the case for me. When later I was able to see her I found her insensible, the pulse being 128 and the temperature subnormal. As I had no pilocarpine, and it was late on Sunday evening I administered a diuretic and diaphoretic mixture. My assistant continued to watch the case, administering chloroform occasionally when the fits were frequent and severe. On the 22nd I was called at 5.45 A.M. as the patient was in another fit. I administered chloroform, which quieted her, and this was kept up intermittently till 8.30 A.M. The fits began by a slight twitching of the left hand which gradually spread to the right side, when the head was drawn violently to the latter side, the teeth closing by clonic contraction of the jaw, biting the tongue at times and slightly drawing blood; the average duration of the fits was five minutes. Slight pressure on the carotids had an effect upon the duration of the fits, and as their intensity decreased the patient produced a peculiar suction noise with her nose as if in violent inspiration. The temperature was 102·5° and the pulse was 146. As the seizures were beginning to weaken the strength of the patient, as was evidenced by the rapid pulse-rate (160) and the high temperature (105°) at 10 A.M. I obtained some pilocarpine and gave her a hypodermic injection of one-fifth of a grain. Soon afterwards profuse diaphoresis set in and at 10.30 P.M. she had not had a fit since. I then drew off 20 ounces of urine, its specific gravity being 1016. The pulse was 136 and the temperature was 99·7°. The patient partook freely of milk and other liquid nourishment. The urine contained one-third per cent. of albumin. On the 25th on my visit I found her maniacal and fanciful, shuddering, and imagining that crawling beasts were about. The temperature was 99·4° and the pulse was 125. She remained maniacal for three days. On the evening of the 27th I gave her 15 grains of sulphonal which caused sleep for about eight hours. On the 28th she appeared to be much better. She was cheerful, but remembered nothing of what she had gone through. A specimen of urine drawn off and carefully examined was found to contain more para-globulin than serum-albumin, and after separation of the para-globulin there was a considerable reaction with nitric acid. From the 28th to Nov. 11th she made an uninterrupted recovery with the exception of a slight tendency to mania. On the latter date there was little reaction with nitric acid; it was scarcely observable with heat.

PATHOLOGY.

Owing to the small number of cases where a necropsy can be obtained on those patients who die the pathology is not well established. Some authorities have observed a dropsy of the ventricles of the brain which they assume causes pressure and nerve-irritation. Others have noticed an anæmic condition of the brain and nerve centres, while another authority is of opinion that the fits are due to thrombi and to the minute hæmorrhages which they have observed, which they assert are caused by the increased coagulability of the blood in pregnancy, but this is not proved by experience. Most authorities believe that the pathological state is to be found in the kidneys, Bright's disease causing faulty elimination of the waste products of tissue metabolism.

PROGNOSIS.

The death-rate in this disease is not quite so high as is generally believed. Authorities on the subject are very divergent, ranging from an abnormally low to an abnormally high rate. This may be due in some measure to partisanship, for men who adopt and advocate a certain line of treatment are apt to show off their own results in the most favourable light, while the results of men who adopt another treatment are less favourably commented on. Galabin gives the death-rate as being 30 per cent., but this I am certain is much too high—one-third of this rate I consider nearer the normal. To give a word of hope to the relatives of the patient in a grave complication of this kind is important, and if Herman's view is correct this can be done almost with certainty by systematic examination of the urine where possible. If the albumin is principally para globulin then with judicious treatment recovery may be predicted with safety, while if the convulsions are due to Bright's disease recovery would be a matter of some doubt.

TREATMENT.

We are apt in this disease as in all others to become empirical in our treatment. A certain line of treatment is very often discredited by the method in which it is employed and carried out, by a want of care and observation on the part of the practitioner in not selecting the proper treatment for the case in question. No special line of treatment is suitable for all cases, inasmuch as many cases of eclampsia will recover speedily with a simple diuretic and diaphoretic mixture and application of heat to the body by means of the hot air or vapour bath or by the simpler means of hot-water bags, but there are other cases in which this is quite inadequate to produce the desired effect—viz., the cessation of the convulsions. One must then adopt more powerful remedies for ridding the system of the effete matter and for allaying the irritability of the cerebro spinal system. Morphine has been much used of late and has produced good results with different authorities. Lyle[1] records one death in eight cases lately treated in this manner at the Rotunda, giving a death-rate of 12·5 per cent. Fitzgerald[2] records two cases treated with morphine and atropine with successful results. The results with this remedy have certainly proved encouraging. Morphine is a powerful anodyne in allaying the irritability of the cerebro spinal system and so controlling the convulsions, but even with this remedy there are cases where fatal results are likely to follow—e.g., cases of nephritis with renal inadequacy. It is taught in the text-books of materia medica that opium or its derivatives should not be given in Bright's disease, as it causes convulsions and death; it is possible that this teaching is just as true as it was 20 years ago notwithstanding the seeming contradiction in treating eclampsia with morphine. It has been asserted by Herman, and I think justly, that in the great majority of cases of eclampsia the albumin found in the urine is not due to nephritis, but to altered blood-pressure in the blood-vessels, and when this is so the patient after delivery rapidly recovers and it leaves no evil effects behind; but when the albumin is due to nephritis the condition is much more grave—the kidneys take a much longer time to recover, and the patient is more apt to die than those in the former category. It is just possible that the fatal case recorded by Lyle belonged to the latter class and that morphine is certain to cause fatal results in nephritic cases. It is important, therefore carefully to examine the urine quantitatively as well as qualitatively, and should the para globulin be in greater proportion than the serum-albumin, then it belongs to the class where altered pressure is the cause of the albuminuria, thus indicating in my judgment, whether or not morphine should be used. Pilocarpine is a powerful remedy but it is distrusted by some. In doses of one-fifth of a grain hypodermically it produces profuse diaphoresis in less than 20 minutes, and in my last case of post-partum eclampsia, after diuretics, diaphoretics, chloral bromide, and chloroform had all had a fair trial without in any way curing the convulsions, it acted in the most happy manner. The patient had no more convulsions after its administration, and none of the bad effects, such as profuse salivation, which, according to some, follow its use, occurred. Others have found pilocarpine to produce the same result. Inglis[3] records a case in which the convulsions ceased immediately after the subcutaneous injection of one-fifth of a grain. Recently treatment by infusion or transfusion of saline solution, either subcutaneously or intravenously, has been much practised and advocated. Jardine[4] records 22 cases treated in this manner with three deaths, equal to a death-rate of nearly 14 per cent. Intravenous transfusion I consider bad treatment even in cases of severe post-partum hæmorrhage, as saline solutions can be introduced into the circulation with safety by less dangerous methods—e.g., per rectum and subcutaneously. In all cases of eclampsia I should advocate the less heroic methods first, and if no good result be obtained then I should resort to the more powerful remedies, preferring pilocarpine to any other drug in suitable cases. I believe that the great dissimilarity in the methods which are adopted and the results which are obtained in the treatment of this complication of the puerperal state are due to the want of method in approaching the treatment of the disease. First of all, if the case permits of this investigation, we must ascertain whether the para-globulin or serum albumin is in the greater proportion. If we obtain this comparative analysis then the treatment is easy, but if the practitioner be unable to obtain this data then I should advocate the simpler methods—first, diuretics, diaphoretics, bromide, chloral, and chloroform—before resorting to morphine or hypodermoclysis, keeping in mind the safety of the patient above all other things, and the particular treatment as of secondary importance. If the eclampsia appears in the first months of pregnancy forcible measures in emptying the uterus should be avoided even under chloroform, as one never knows how much damage may be caused to the uterus by this means. Nature is, as a rule, gentle in her methods, therefore the bougie is more likely to act beneficially than is forcible emptying of the uterus. It should be kept *in situ* so long as to produce powerful and regular contractions, and then withdrawn, to be re-inserted if the pains lag. Venesection is a valuable form of treatment if the patient is plethoric, but to bleed indiscriminately is, in my judgment, bad treatment.

---

[1] Brit. Med. Jour., Jan. 19th, 1901.
[2] Ibid., Nov. 24th, 1900.
[3] Ibid., Sept. 15th, 1900.
[4] Transactions of the Obstetrical Society, May 11th, 1901.

Blandford-street, W.

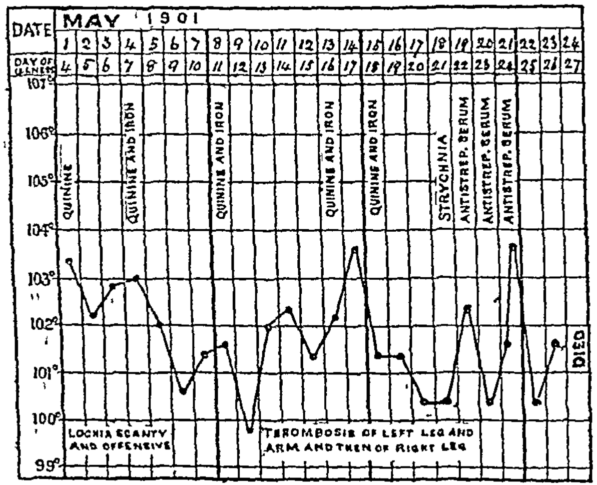
Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF PUERPERAL FEVER TREATED WITH ANTI-STREPTOCOCCIC SERUM; DEATH.

By F. W. Thurnam, M.B., C.M. Edin.

A married woman, aged 34 years, the mother of four children, and who had had three miscarriages, was safely delivered by me, after a normal labour, at 6 p.m. on April 27th, 1901. All appeared to be going on satisfactorily till the fourth day (May 1st) when her temperature, which had been 99°F. the previous day, was 103·4°, and the lochia were scanty and offensive. Quinine and uterine injections of 2 per cent. solution of creolin reduced the temperature one degree on the following day, but it rose again till on May 4th it was 103°. Doses of five grains of quinine with 20 minims of solution of perchloride of iron given every four hours brought it down to 100·4° on the 6th, and, after an intervening rise to 101·8°, to 99·8° on the 9th. After this date there was thrombosis of the left leg and subsequently of the arm on the same side and of the other leg. There was some thickening, probably perimetritis, mostly on the left side. There was diarrhœa from May 7th to 19th, which was checked to some extent by chalk mixture and benzo-naphthol with port wine. A troublesome crop of boils formed on the buttocks and one of them went on to a bedsore, after some incontinence of urine, which was albuminous. The rigors were numerous and there was more or less delirium, though the tongue remained clean throughout. The pulse and respiration did not correspond with the temperature. From facts which came to my knowledge the source of mischief pointed only too plainly to the nurse who was dismissed on May 4th. On the 14th the temperature was 103·6°, falling by the 17th to 100·4°. On the 19th it was 102·4°, when Dr. H. B. Carter saw the patient with me and we decided to try anti-streptococcic serum, which I procured from the Jenner Institute, and at 8 p.m. 20 cubic centimetres were injected, the temperature falling to 100·4° at noon on the 20th, when I injected 10 cubic centimetres. On the 21st the temperature was 101·6°, so at 11 p.m. I injected 30 cubic centimetres of serum. Half an hour afterwards the temperature was 103·6°, but on the next morning it was 100·4°, rising on the 23rd to 101·7°. The patient died at noon on May 24th. The respiration rose gradually from 20 to 60 per minute, latterly with moist râles. From the 18th strychnia and brandy were necessary.



Having been probably fortunate in this being the only case of puerperal fever which I have had to encounter in my own practice I desire to call attention to the rise of 2° after the injection on May 21st. I, however, cannot be certain that this was due to the anti-streptococcic serum, and consider that bleeding and the injection of saline solution would not have been of benefit under the circumstances and that the combination of iron and quinine was on the whole preferable.

New-cross, S.E.

A CASE OF PUNCTURED FRACTURE OF THE SKULL COMPLICATED WITH OTHER SEVERE INJURIES; RECOVERY.

By Edward A. Piggott, L.R.C.P. & S. Edin., L.S.A. Lond.

On August 30th, 1900, I was called by telegraph some nine miles from my residence to attend the subject of this note. The patient, a builder and contractor by occupation, aged 46 years, in the course of his duties had been unfortunate enough to fall down a deep well; but I cannot do better than quote the following account of the accident from the *Brick and Pottery Trades Journal*:—

"In August last Mr. J. was engaged in carrying out extensive works at the Manor, Cowlinge, Suffolk. He had employed an experienced well engineer to sink a new well for the water-supply, and being desirous of personally examining the work he requested the well foreman to let him down to the bottom. Unfortunately, Mr. J. went a good deal quicker than he anticipated, for a man employed on the surface to manage the tackle discovered when too late, that Mr. J. had got into the large bucket before everything was ready. It appeared that the man who had charge of the handle had not attached it to the roller in a proper manner, and Mr. J. was dropped no less a distance than 102 feet. His fall was broken by becoming impaled on the bore iron which happened to be still standing in the well. It spiked him through the thigh and held him there until assistance was forthcoming. He was taken to the top, where it was discovered that the thigh was torn open for a considerable distance, and his skull severely fractured."

The patient was removed to his residence from the scene of the accident as soon as practicable, and a careful examination made at 4 A.M. on the 31st revealed the following injuries. There was a wound of the scalp some two and a half inches square exposing the bone, situated a little posterior to the left parietal eminence and encroaching on the position of the lambdoid suture. There was no sign of depression or fissure of the external table of the skull, but in the centre of the wound there was a distinct puncture which penetrated the diploë. On the inner side of the right thigh, some three inches above the knee-joint, was a lacerated wound measuring four inches transversely and extending along the inner border of the rectus femoris, beneath the sartorius, and terminating deeply amongst the muscles in the neighbourhood of the apex of Scarpa's triangle; from this wound there was profuse venous hæmorrhage. Fortunately the femoral artery escaped injury. The right lumbar region, the right buttock, and the whole of the right thigh were one continuous track of ecchymosis—in fact, black with effused blood. The pelvic bones and femur were free from lesion.

The condition of the patient at 11 A.M. on August 31st was as follows. He was perfectly unconscious; his breathing was laboured and at times was inclined to be stertorous. The pupils were unequal, the pulse was 120, and the temperature was normal. As no urine had been passed since the accident on the previous afternoon a catheter was passed and the bladder was emptied. The head was shaved and an ice-bag was applied; small quantities of milk and soda-water and beef-tea were ordered to be given at intervals. The patient was placed upon a water-bed as soon as one could be procured. For the next few days he remained in a state of semi-consciousness, alternating with most violent attacks of delirium, requiring at times two men in addition to the nurses to control him. The catheter had to be employed night and morning until Sept. 5th, on which date the bladder resumed its normal action. On the evening of Sept. 7th the temperature suddenly rose to 100 8° F. The whole day the patient was more or less delirious, the symptoms indicating irritation of the brain; the next morning the temperature fell to the normal point, and during the remainder of the treatment never rose above 100 4°—the point attained on Oct. 4th and 6th, its usual range being from 97 4° to 99°. The pulse-rate was generally between 80 and 96; the hightest rate recorded was 120 on the evening of Sept. 7th. The respiration rate ranged between 20 and 24. The wound in the thigh was very tedious in its progress and necessitated a hypodermic injection of morphine (a quarter of a grain of bi-meconate) each night when dressed. A considerable amount of sloughing of integument and fascia was unavoidable; it eventually healed by granulation and was systematically dressed for the last time on Oct. 31st, the patient leaving home for the sea-coast on Nov. 6th.

Remarks—The case is remarkable, more especially as regards the depth of the fall. There were never any decided symptoms of compression, those of irritation being most marked. Abscess and the trephine I most dreaded, but the brain mischief gradually and steadily improved. Great credit was due to a man working on a platform at the bottom of the well at the time of the accident, who, although suffering from three fractured ribs and a laceration of the face caused by the falling gear, managed by means of the tackle to send his more severely-injured companion to the surface. I must express my indebtedness to Mr R H Wilkin of Wickhambrook who saw the patient with me immediately after the accident, and also to Mr. R. W. Waring of Cavendish, who met me several times in consultation.

Clare, Suffolk.

ASPARAGUS AND HÆMATURIA.

BY J. S. MACKINTOSH, M.R C.S. ENG., L.R C.P. LOND.

ON May 25th last an old gentleman, aged 73 years, sent to me a bottle of his urine, passed between 11 P.M. and 4 A.M. on the previous night, which had alarmed him by its dark colour. On testing it gave reactions for albumin and blood and under the microscope plenty of blood-corpuscles and a few blood-casts could be seen. This, together with the smoky colour of the urine, pointed clearly to the kidney itself as the source of the hæmorrhage. On calling to see the patient I found him busy in his study, looking and feeling quite well. The history he gave was that he was very fond of asparagus and that two days previously he had had a fine bundle sent to him from the country, which he had consumed at luncheon and dinner on each of the two days, taking at each meal "about as much as he could grasp with one hand." He owned an astronomical telescope, and after dinner on the second day (the evening before the hæmaturia took place) he went out to give a demonstration of the moon to some friends. The day had been warm, but the evening, with the strong east wind prevalent at that date, became very cold. The patient did not notice the cold until the end of the demonstration, when he felt that he had got chilled. About midnight he had a desire to urinate and he passed the urine of which he sent to me a specimen. In the evening he sent to me another specimen of the urine passed during the day after I had seen him. In this there was no trace whatever of albumin, blood, or casts. There has been no abnormality of the urine since. The patient had a prejudice against drugs, so, as there had been no symptoms whatever of an acute nephritis beyond the condition of the urine, he was recommended to confine his diet to slops and to keep himself under observation.

Asparagus is a stimulant diuretic causing dilatation of the afferent and contraction of the efferent blood-vessels of the kidney. The patient, then, with the kidneys engorged with blood exposed himself to a thorough cooling of the surface of the body. The mode of production of the hæmaturia seems plain enough. What is not so clear is its transient character. Apparently, a train had been well laid to lead to an explosion of an acute nephritis, but ended, happily, in a mere fizzle. The patient himself is, for his years, remarkably active, both in mind and body. Of spare habit and small stature he *enjoys, as a rule*, excellent health, beyond occasional slight "uricacidity" manifestations. He exhibits a degree of arterio-sclerosis not uncommon at his age, but of chronic interstitial nephritis no symptoms at all. The moral appears to be that exposure to a chill after indulgence in asparagus is not without its dangers.

Hampstead, N.W.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

BEDFORD COUNTY HOSPITAL.

A CASE OF PANCREATIC CYST OR EFFUSION INTO THE LESSER PERITONEAL CAVITY; DRAINAGE; *RECOVERY.*

(Under the care of Dr R. H. COOMBS and Mr. W. GIFFORD NASH.)

THE diagnosis between true cysts of the pancreas and effusions into the lesser peritoneal cavity is very difficult even after a laparotomy has been performed. In the following very interesting case the arguments certainly appear to be in favour of the cyst being an effusion into the small sac of the peritoneum, and much may be said on behalf of Mr. Gifford Nash's contention that the absence of a history of trauma is a fairly trustworthy criterion that a doubtful cystic swelling in this situation is a cyst of the pancreas rather than a peritoneal effusion.

A girl, aged four years, was admitted into the Bedford County Hospital on Feb. 3rd, 1900, under the care of Dr. R. H. Coombs. In the summer of 1899 she had whooping-cough and at the end of October began to suffer from attacks of abdominal pain and vomiting. These attacks continued and she lost flesh. An attack of abdominal pain on Feb. 1st was the cause of her being taken to the hospital. There was no obtainable history of any injury to the abdomen. On admission the abdomen was found to be slightly distended but not tender, and by some it was thought to contain a little free fluid. There was some resistance to be felt below the left costal margin. Mr. Gifford Nash saw the child a few days after admission and found some tenderness and deep resistance in the left epigastric and hypochondriac regions just below the edge of the ribs (Fig. 1). No

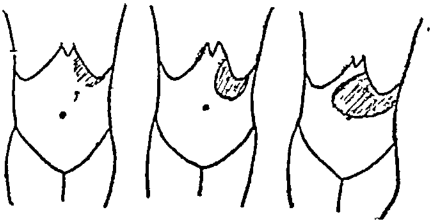


FIG. 1. FIG. 2. FIG. 3.

Fig 1, condition from Feb. 3rd to 12th. Fig. 2, condition on Feb. 13th Fig 3, condition on Feb. 20th. The shaded portion shows the extent of the tumour.

lump of any kind could be detected. The symptoms suggested trouble in the region of the pancreas, but no definite diagnosis could be made. During the night of Feb. 12th the child frequently complained of severe pain in the stomach, and next morning a tumour was seen and felt in the left epigastric and hypochondriac regions (Fig. 2). The tumour extended upwards under the ribs and downwards into the left loin. The margin was rounded and the tumour was elastic and fluctuating. It suggested from its situation, shape, and rapid appearance a hydronephrosis of the left kidney, but the presence of colon resonance behind it showed that it did not arise from this organ. It was also suggested that it was a splenic tumour, but its rapid appearance and cystic nature put this out of the question. Mr Nash concluded that it must be either a pancreatic cyst or an effusion into the lesser peritoneal cavity. During the next few days the tumour increased in size and became more tense and fixed. It passed across the middle line and extended upwards so as to be continuous with the area of liver dulness. It extended downwards to the umbilicus (Fig. 3). The stomach lay in front of the upper part of the swelling. Except that the appetite was poor and that there was some pain there were no gastric, intestinal, or urinary symptoms and no rise of temperature. Examination of the blood showed no change except a slight increase of leucocytes. A diagnosis of a pancreatic cyst having been made, it was determined to drain it by an anterior incision.

An operation was performed on Feb. 20th. An incision three inches long was made in the left linea semilunaris over the most prominent part of the tumour. The stomach was found flattened out over the anterior and upper part of a very tense cyst. The incision was prolonged downwards and the transverse colon was found crossing the lower part of the cyst A vertical incision was made in the gastro colic omentum which formed part of the wall of the cyst. After tearing through a layer of fatty tissue a white fibrous cyst was exposed resembling in appearance an ovarian cyst. A trocar was inserted and about 30 ounces of dark brown fluid were evacuated. This spurted out as if retained under considerable pressure. The edges of the cyst were stitched to the

TABLE I.—TRAUMATIC PANCREATIC CYSTS OR EFFUSIONS INTO THE LESSER PERITONEAL CAVITY.

No.	Author.	Year.	Reference	Sex.	Age.	Interval between injury and appearance of tumour.	Nature of injury.	Treatment.	Result.
1	Kulenkampff.	1881.	Berliner Klinische Wochenschrift, 1882.	M.	39 years.	About 2 months.	A number of heavy blows upon the abdomen.	Aspiration; incision.	Recovery.
2	Senn.	1884	American Journal of the Medical Sciences, July, 1885.	M.	19 "	About 5 weeks	A fall from a wagon, striking the left side of the abdomen.	Aspiration; incision.	"
3	Kuster.	1887	Deutsche Medicinische Wochenschrift, Leipsic, 1887.	M.	46 "	8 years.	Thrown from a wagon.	—	—
4	Fenger.	1888	Chicago Medical Journal, February, 1888.	M.	8 "	3 weeks.	A fall from a horse, bruising the abdomen.	—	—
5	Steele.	"	Chicago Medical Journal, April, 1888.	M.	40 "	1 year.	Crush between two railway wagons.	—	—
6	Treiberg Karkov.	"	Annals of Surgery, November, 1888	M.	Young.	—	Assault by roughs.	—	—
7	Jordan Lloyd.	"	Brit. Med. Jour., vol. ii., 1892, p. 1051.	M.	20 years	3 months.	Knocked down by a horse.	Aspiration; incision.	Death.
8	Karewsky.	1890	The Lancet, Feb. 28th, 1891, p 500	M.	25 "	4 weeks.	A fall upon the left side of the abdomen.	Incision.	Recovery.
9	"	"	The Lancet, Feb. 28th, 1891, p 500.	M.	58 "	3 months.	An injury to the left costal margin.	"	"
10	Cathcart.	"	Edinburgh Medical Journal, July, 1890.	M.	13 "	2½ "	A cart wheel passed over the upper part of the abdomen.	—	—
11	Riegner.	"	Berliner Klinische Wochenschrift, 1890.	F.	23 "	3 years	A fall from a great height.	—	—
12	Pitt and Jacobson.	1891	The Lancet, June 13th, 1891, p. 1315	M.	21 "	3 years.	A kick in the abdomen.	Aspiration; incision.	Recurrence 1 year later.
13	Richardson.	"	Boston Medical and Surgical Journal, 1891.	M.	50 "	3 or 4 months.	Strain in lifting and fall upon the abdomen.	—	—
14	Jordan Lloyd.	"	Brit. Med Jour., vol. ii., 1892, p 1051.	M.	27 "	10 days.	Thrown down and the abdomen knelt upon.	Aspiration; incision.	Recovery.
15	Littlewood.	1892	The Lancet, April 16th, 1892, p 871.	M.	38 "	3 weeks.	Horse threw and stamped upon him	Aspiration; incision.	"
16	Lynn Thomas.	"	The Lancet, March 31st, 1894, p 799.	M.	2 "	"	Run over by the wheel of a cab.	Aspiration.	"
17	Brown.	1894.	The Lancet, Jan 6th, 1894, p. 21.	M.	17 "	3½ months.	Crushed between buffers.	Aspiration; incision.	"
18	Fisher.	"	The Lancet, Jan. 27th, 1894, p 201.	M.	17 "	5 weeks.	Crush.	Aspiration; incision.	"
19	Hadra.	1896.	The Lancet, August 8th, 1896, p 391.	M.	9 "	3 weeks.	Blow.	Incision.	"
20	Cushing.	1897.	Annals of Surgery, vol. xxviii, p. 337.	M	31 "	4 weeks.	Blow on the epigastrium from a deal plank.	"	"
21	Randall.	1898	The Lancet, Dec. 24th, 1898, p 1702.	M.	14 "	1 year.	Kick in the back by a horse.	"	"
22	Barker.	1899.	Brit. Med. Jour., vol. i, 1899, p 663.	M	14 "	A few weeks	Fall.	"	"
23	Stanley Boyd.	1900.	Clinical Journal, Feb 21st, 1900	F.	20 "	1 year.	Struck on the chest by a swinging door.	"	"
24	Fisk.	1899	Annals of Surgery, November, 1900.	M.	35 "	20 months.	Blow on the abdomen.	Drainage.	"
25	Phillips.	1900	The Lancet, Jan. 19th, 1901, p 181; Brit. Med Jour., vol. i, 1901, p. 149.	M.	22 "	5 "	Kick on the abdomen by a horse.	Aspiration; drainage.	Death.

Total, 25 cases, consisting of 23 males and two females; average age 25 years.

TABLE II.—NON-TRAUMATIC PANCREATIC CYSTS.

No.	Author.	Year.	Reference.	Sex.	Age.	Duration of symptoms.	Nature and history of early symptoms.	Treatment.	Result.
1	Luecke.	1866.	Senn's paper in American Journal of the Medical Sciences, July, 1885.	F.	43 years.	4 months.	Pain in the right hypochondrium; swelling which gradually filled the abdomen.	Drainage.	Death.
2	Gussenbauer.	1872.	"	M.	40 "	10 weeks.	Sudden illness after a big meal; vomiting.	Incision.	Recovery.
3	Hulke.	1878.	THE LANCET, Dec. 3rd, 1892, p. 1273	F.	47 "	About 40 years.	Tumour since girlhood; attacks of pain, vomiting, and constipation.	Attempted excision.	Death.
4	Rokitansky.	—	Senn's paper, loc. cit.	F.	36 "	3 years.	Tumour commenced in the upper part of the abdomen.	Attempted excision.	"
5	Riedel.	—	"	F.	45 "	9 "	Began as a small tumour in the upper abdomen.	Excision.	"
6	Salzer and Billroth.	—	"	F.	33 "	15 "	Began as a lump above the umbilicus.	Attempted excision.	"
7	Kramer and Halm.	—	"	F.	16 "	?	Began with pain and vomiting, then gradual distension of the upper abdomen	Drainage.	Recovery.
8	Bozeman.	1881.	Medical Record, Jan. 14th, 1882.	F.	41 "	7 "	Pain in the right iliac region.	Excision.	"
9	Thiersch.	"	Senn's paper, loc. cit.	M.	38 "	2½ weeks.	Taken ill at work; swelling in the region of the stomach; nausea.	Incision.	"
10	Dixon.	1884.	"	M.	42 "	3 months.	Symptoms of cholelithiasis; jaundice for 10 days.	Puncture.	Death.
11	Pearce Gould.	1887.	THE LANCET, August 8th, 1891, p. 290.	F.	36 "	2 years.	In 1885 lump in the right side of the abdomen; in 1886 jaundice.	Incision.	Death in 1891 from cancer of the sinus.
12	Treves.	1883.	THE LANCET, Sept. 27th, 1890, p. 655.	M.	40 "	7 or 8 months.	Throbbing around umbilicus, dragging pains.	"	Recovery.
13	Pearce Gould.	1891.	THE LANCET, August 8th, 1891, p. 290.	F.	24 "	7 years.	Attacks of biliary colic; three weeks of severe pain above the umbilicus.	"	"
14	Swain.	1892.	Brit. Med. Jour., vol. i., 1893, p. 456.	M.	38 "	3 months.	Four weeks previously strain and colic whilst running in a race.	"	"
15	Clutton.	"	THE LANCET, Dec. 3rd, 1892, p. 1273.	F.	35 "	20 years.	—	Enucleation.	"
16	Bilton Pollard.	1894.	Brit. Med. Jour., vol. i, 1899, p. 594.	M.	34 "	6 "	Abdominal distension and pain; colic for six years; vomiting for three weeks.	Incision.	"
17	Turner.	"	THE LANCET, July 4th, 1896, p. 25.	M.	34 "	8 months.	Pain after a meal; tumour, vomiting and constipation.	"	"
18	Ramsay and Kelly.	1895.	Annals of Surgery, vol. xxii., p. 771.	F.	38 "	6 "	Pain in the upper abdomen; nausea and vomiting.	"	"
19	McPhedran.	1895-6.	Brit. Med. Jour., vol. i., 1897, p. 1400.	M.	53 "	4 years.	Attacks of colic apparently biliary; two operations.	"	Recovery with sinus.
20	Bilton Pollard.	1896.	Brit. Med. Jour., vol. i., 1899, p. 594.	M.	56 "	6 weeks.	Abdominal distension, pain, and vomiting; loss of flesh.	"	Recovery.
21	Penrose.	"	Annals of Surgery, vol. xxv, p. 491.	F.	33 "	2 years.	For two years lump in the left upper abdomen; later backache and loss of flesh.	"	"
22	Keen.	"	"	F.	15 "	4 "	For four years a lump in the left upper abdomen; dyspepsia, pain, sickness.	"	"
23	Horrocks.	"	THE LANCET, Jan. 23rd, 1897, p. 242.	M.	56 "	2 months.	Pain, nausea, vomiting, heaviness, languor, and loss of flesh.	Aspiration.	Death.
24	Bilton Pollard.	1897.	Brit. Med. Jour., vol. i., 1899, p. 594.	M.	36 "	4 weeks.	Pain in the back, two weeks later sudden pain in the hypochondrium.	Incision.	Recovery.
25	Malcolm.	"	THE LANCET, Jan. 29th, 1898, p. 279.	F.	45 "	7 months.	Slight tenderness.	Excision.	"
26	Doran.	"	THE LANCET, Dec. 18th, 1897, p. 1591.	F.	24 "	2 years.	Spasmodic epigastric pain.	Incision.	"
27	Nash.	1900.	—	F.	4 "	5 months.	Obscure pain in epigastrium, increased resistance; tumour for two weeks.	"	"
28	Deaver.	1899.	Annals of Surgery, November, 1900.	F.	58 "	12-15 years.	Increasing stoutness, constipation; prolapse of the vagina for two years.	"	"
29	Morton.	1897.	Annals of Surgery, June, 1899.	F.	30 "	2 years.	Lump in the epigastrium; attacks of colic.	"	"

Total. 29 cases; consisting of 11 males and 18 females; average age, 36 years.

edges of the peritoneum only and the wound was closed except where a drainage-tube was left in. The cyst wall was about one-eighth of an inch thick and was very vascular. Its interior felt velvety and looked deeply congested. A finger in the cyst felt the liver above, the spleen and left kidney to the left and behind, and at the back of the cyst the aorta and an irregular soft mass, presumably the pancreas. In the position of Winslow's foramen a small pocket could be felt but it was apparently closed.

The fluid in bulk was almost black, but in a test tube it appeared reddish-brown from the presence of blood. It was alkaline, highly albuminous, converted starch into sugar, and emulsified fats. It did not contain bile. The specific gravity was 1017. Under the microscope were seen numerous red blood corpuscles, some large granular cells which stained with methylene blue, and some tyrosin crystals.

After the operation there was a little discharge from the sinus of a clear fluid which irritated the skin to a slight extent. The sinus was kept open by a small tube or piece of gauze until the middle of May, when the tube was omitted for good. A week later the fistula was completely healed, having continued discharging for three months. The child was seen in December, 1900, in perfect health, and no trace of any swelling could be felt in the abdomen.

Remarks by MR. GIFFORD NASH.—There is no doubt that this cyst occupied the position of the lesser peritoneal cavity and that it communicated with some duct of the pancreas as shown by the nature of the fluid. Was the fluid in the lesser peritoneal sac or was it in a cyst of the pancreas which occupied the sac? I am inclined to think that it was an effusion into the lesser cavity of the peritoneum for the following reasons 1. The history of a sudden appearance of a fluid tumour in the left side of the abdomen. No cyst due to the dilatation of a duct could form in a single night. Senn has proved experimentally that sudden blockage of a pancreatic duct does not produce a retention cyst. The position of the swelling, too, was exactly in the situation of the lesser peritoneal cavity. 2. It might be expected that the contents of a cyst due to a dilated pancreatic duct would be clear, somewhat like the fluid contained in a ranula, but here the fluid was highly albuminous and contained much blood—in fact, it was such a fluid as one would expect to be poured out by a highly-congested peritoneum when stimulated by the presence of an irritating fluid. 3 The quantity of fluid which was poured out in a single night must have been quite a pint. After the cyst was opened and the irritation was removed the quantity discharged daily was but a few teaspoonfuls and in character clear and glairy.

My explanation of the case is as follows. The attack of whooping-cough in 1899 caused some injury or an effusion of blood into the pancreas. This gave rise to the occasional attacks of pain and vomiting and to the deep epigastric resistance. Possibly a small cyst formed in the pancreas at the seat of injury. The manipulations of several persons attempting to diagnose the case between Feb. 3rd and 12th ruptured the cyst and produced some extravasation of pancreatic fluid into the lesser peritoneal sac, and this set up a profuse hæmorrhagic effusion.

Until 1892 this case would undoubtedly have been considered to be a pancreatic cyst, but in that year Mr. Jordan Lloyd[1] published a paper on Two Cases of Effusion into the Lesser Peritoneal Cavity, and since that date many similar cases have been reported. Mr. Jordan Lloyd pointed out that the tumour caused by effusion into the lesser peritoneal cavity lies in the left hypochondriac, epigastric, and umbilical regions, and that the stomach lies above and the colon below it. The conclusions he came to may be summed up as follows: (1) that contusions of the upper part of the abdomen may be followed by the development of a tumour in the epigastric, umbilical, or left hypochondriac regions; (2) that such tumours may be due to a fluid accumulation in the lesser peritoneal cavity; (3) that when the contents of such tumours are found to have the property of rapidly converting starch into sugar it may be assumed that the pancreas has been injured; and (4) that many such tumours have been regarded as true retention cysts of the pancreas, and that this opinion has been formed on insufficient evidence.

The first paper on cysts of the pancreas was published by Senn in the *American Journal of the Medical Sciences* in July, 1885. Several of the cases collected by him had been operated on as ovarian cysts and the attempts at removal had almost invariably proved fatal. With regard to these cysts of the pancreas Senn stated that—"(*a*) All cases have occurred in adults; (*b*) sex has no influence; and (*c*) traumatism is a frequent exciting cause."

Subsequent experience has shown that the first two of these statements require modification. "(*a*) All cases have occurred in adults." This is no longer true, as out of 54 cases which I have collected 12 have occurred under the age of 20 years, one patient being aged two years and another four years. Out of 25 traumatic cases nine have been under 20 years of age. "(*b*) Sex has no influence." This is not so, as out of 25 cases in which there was a clear history of injury 23 were males and only two were females. On the other hand, out of 29 cases in which there was no history of injury 18 were females and 11 were males. It has occurred to me that tight-lacing may have some influence in producing the preponderance in females. "(*c*) Traumatism is a frequent exciting cause." If it is considered that every case in which a cystic collection of fluid occurs giving the reactions of pancreatic juice is a cyst of the pancreas, then this statement is true, but if these cases are divided into true pancreatic cysts and effusions into the lesser peritoneal cavity containing pancreatic fluid then I would say that traumatism is a frequent cause of the latter, but, as far as is known, not of the former.

Senn also pointed out that the rapid growth of the tumour is in favour of pancreatic origin, that pain is not a constant symptom, and that there are no serious symptoms apart from pressure on the surrounding structures. He gave nine affections from which these cases must be diagnosed—viz., (1) malignant disease of the pancreas or adjacent organs; (2) aneurysm; (3) hydatid cyst; (4) affections of the retroperitoneal glands; (5) hydro- or pyo-nephrosis; (6) cyst of the suprarenal body; (7) circumscribed peritonitis or exudation; (8) ascites; and (9) cystic disease of the ovary. To these, I think, might be added distension of the gall-bladder.

I have collected 54 cases of pancreatic cyst or effusion into the lesser peritoneal cavity and have classified them as traumatic and non-traumatic. The traumatic cases number 25 (Table I.) and the non-traumatic 29 (Table II.). Of the traumatic cases 23 were males and two were females, and of the non-traumatic cases 11 were males and 18 were females. The average age of the patients in the traumatic cases was 25 years and that of the non-traumatic 36½ years. The age of the youngest patient in the traumatic cases was two years and that of the non-traumatic cases was four years. In most cases due to injury a cyst requiring operation was produced in a few weeks, but the non-traumatic cases usually gave a long history, often of many years' duration, and in some of these it is possible that there may have been an injury which had been forgotten. Patients in whom there was no history of injury generally gave a history of attacks of pain, occasionally very severe, in the epigastrium (so-called cœliac neuralgia), followed eventually by an acute attack of pain and sickness and formation of a swelling. This sudden attack probably announced the rupture of a cyst into the lesser peritoneal cavity. The nature of the injuries causing these effusions has been falls, blows, or crushes.

Some of the earliest cases recorded were treated by attempts at enucleation, but this method proved almost invariably fatal. Complete removal is impossible except in the case of a small cyst of the pancreas, such as that operated on by Clutton, in which the cyst sprang from the tail of the pancreas. Aspiration has been adopted many times, but in some instances it has proved fatal and in many it has been followed by recurrence of the tumour. Lynn Thomas treated a traumatic cyst in a child, aged two years, by aspiration with complete success. It is, however, generally agreed that aspiration is dangerous, even as a means of diagnosis, as it is almost impossible to avoid penetrating the stomach which is stretched out over the front of the tumour, and as a means of treatment it is generally useless. The acknowledged operation is incision and drainage, which is most easily done by an anterior opening. The cyst is opened between the stomach and the transverse colon. It is probable, however, that a posterior incision below the last rib on the left side will give the best result and this method has been adopted in a few instances. The fistula generally heals in less than four months, but may heal even after two years' duration. In one case at least it has remained permanently and in another (Gould's case) it was followed by a malignant growth which proved fatal. In Jacobson's case the cyst refilled a year after treatment by incision and drainage. The risk of operation by incision and drainage appears to be very slight.

---

[1] Brit. Med. Jour., vol. ii., p. 1051.

ROMAN CATHOLIC SANATORIUM, PIETERMARITZBURG.

A CASE OF NEPHRO-LITHOTOMY IN WHICH THE DIAGNOSIS OF RENAL CALCULUS WAS CONFIRMED BY THE X RAYS.

(Under the care of Dr. C. J. CURRIE.)

THE difficulties of obtaining a skiagram of a renal calculus are great, partly because of the large amount of soft tissues through which the rays have to pass and partly because of the blurring of the shadow owing to respiratory movements. There is, however, a third cause which is probably as important as either of the others—namely, the nature of the stone. The best shadow is given with a calculus composed of oxalate of lime, but a uric acid calculus or one consisting of phosphates gives a much less distinct shadow on the sensitive plate. In the case reported below the fact that the urine was alkaline and contained crystals of triple phosphates renders it almost certain that this dendritic renal calculus was in great part phosphatic, with not improbably a nucleus of uric acid; this may serve to account for the difficulty in obtaining a good skiagram.

A European, aged 40 years, first came under Dr. Currie's care in January, 1901, complaining of pain in the right loin. The patient stated that he had passed mucus and pus in the urine for 15 or 20 years, but that the pain in the loin was not very severe till about three months before, and that he had had it off and on ever since. The urine contained pus, mucus, and albumin, but no blood, and under the microscope crystals of triple phosphates were observed. The urine was alkaline and of specific gravity 1018. The patient was treated first with citrate of potash and then with piperazine, but as after a month's treatment no improvement was noted he was admitted to the Roman Catholic Sanatorium. On Feb. 20th he was radiographed by Mr. A. Allerston, and the plate on being intensified showed faintly but distinctly evidence of a stone in the kidney.

On Feb. 25th Dr. Currie, assisted by Mr. Ward, Dr. Buntine, and Dr. Taylor, cut down on the kidney by the usual lumbar incision, which was afterwards increased by a small vertical incision to give more room, and removed a large branched phosphatic calculus from the pelvis and calices of the kidney. The stone broke on being grasped by the forceps and was extracted in four pieces, which together weighed 200 grains. Hæmorrhage from the renal tissue was free and a drainage tube and plug of iodoform gauze were placed in the kidney wound. The incisions in the lumbar fascia and muscles were sewn up with a continuous catgut suture and the skin and fat were brought together with interrupted silkworm-gut sutures. The plug, which caused considerable pain, was after 24 hours removed under chloroform, and the tube was gradually shortened The wound ran an aseptic course and healed by first intention, except where the tube and gauze strip came through, and the patient made an uneventful recovery. On March 29th he still had a urinary fistula, but it was closing rapidly.

Since the above was written the patient was seized with pain in the prostatic urethra followed by an attack of orchitis. He thinks he passed some gravel, but unfortunately the urine supposed to contain it was thrown away without being carefully examined. The orchitis is now subsiding (April 6th) and the fistula is nearly closed.

Remarks by Mr. A. ALLERSTON.—The first time that I tried to take a radiograph of a renal calculus was some three or four years ago, but the apparatus that I was using then only gave a six-inch spark and the experiment failed During the recent Boer war I have been in charge of the x-ray apparatus belonging to the Natal Volunteer Department. This apparatus, which I used in the present case, gives a 12-inch spark and was manufactured by Apps I used a Crookes's tube with an osmium anode. The tube was distant from the plate 18 inches; one picture was made and an exposure of 20 minutes was given.

The thorax and upper part of the abdomen were bandaged to restrain the respiratory movements as much as possible and the exposure was intermittent, lasting 30 seconds at a time, with regular intervals of 30 seconds, the patient being directed to hold his breath during the exposure. By this means the blurring of the negative due to the upward and downward movements of the kidney during respiration was obviated. When the plate was developed I could see four distinct shadows which I then thought were four stones, being confident that as the other parts of the plate were clear these shadows must have been caused by some obstruction to the rays. I intensified the plate with mercury which showed up the shadows more distinctly, but I could not manage to get off a print.

A few days afterwards nephro-lithotomy was performed and a stone weighing 200 grains was removed. The stone, which had four branches, was as near as possible of the size of the shadow on the plate. I have had several cases since and I have detected a stone in one.

Medical Societies.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Case.—Double Hernia with Unusual Complications.—Appendicitis with Unusual Complications.—Anomalous Cerebral Cases.—Perforating Dysenteric Ulcer of the Colon.—Empyema.

A MEETING of this society was held on June 18th, Mr. P. E. MIALL being in the chair.

Dr. J. KERR showed a patient operated on for Mastoid Disease.

Mr. W. H. HORROCKS read notes on a case of Double Hernia with Unusual Complications. The patient was a male child, nine and a half months old, who had a double inguinal hernia and also a spina bifida. On the left side the sac was tense and there was no impulse on crying. The skin of the part was red and œdematous. The right hernia was irreducible and the external ring was very large. The bowels were acting. On opening the sac in the left side a few drops of pus escaped and a narrow band, ulcerated at its extremity, was found leading up through the ring to the small intestine; this turned out to be a Meckel's diverticulum. It was removed and the stump inverted. The sac and testicle being infiltrated with pus were removed together and the ring closed with catgut sutures. The wound healed well. A fortnight later the hernia on the right side was operated on. The sac was found to contain the lower part of the cæcum which was free; the posterior and inner aspects of the latter were devoid of peritoneal investment. The testicle was in its natural position. The bowel was gently reduced without interfering with its vascular supply and the peritoneum closed and the ring sutured. The wound healed well.

Dr. C. F. ALTHORP described a case of Appendicitis with Unusual Complications, and showed the vermiform appendix containing a concretion, and also a small ovarian tumour removed from the same patient. The patient was a woman, aged 22 years, who during two years had six attacks of appendicitis. On July 4th, 1900, the appendix, which was found to be fixed in the pelvis and matted by dense adhesions to the right ovary, was removed. The patient recovered from the operation, but was not relieved of her symptoms. A tumour was discovered in the position of the right broad ligament, and the abdomen was opened on May 8th, 1901. A fluid tumour of the size of a small orange was shelled out from between the layers of the broad ligament. The patient made a good recovery and went home well Dr. Althorp remarked that the right ovarian artery gave a branch to the appendix and also that the lymphatics of the two organs were somewhat intimately connected, and suggested that this connexion might account for the simultaneous occurrence of disease in the right ovary and the appendix.

Mr. R. MERCER read notes on three Anomalous Cerebral Cases. The first case was that of a woman, aged 25 years, who was suddenly (October, 1900) seized with giddiness, headache, and vomiting; these passed off and in two days she was back at work again. She remained at work a fortnight and then suddenly became unconscious and had an epileptiform attack. The fits recurred from every half hour to an hour and did not cease for 24 hours after the onset. She vomited from time to time and passed urine unconsciously. The urine contained a trace of albumin. There was no evidence of muscular weakness. The optic discs were normal. The pulse was slow and full, from 50 to 60 per minute. The temperature was slightly above normal. The respirations were stertorous. It was three weeks before she regained full consciousness. During this time she objected to the light, and after she began to talk again said that things were upside down. Examination of the field of vision showed left nasal hemianopia The pupils reacted normally. The patient was now (June, 1901) in excellent health and seemed to have no recollection of her illness previously to the complete return of consciousness. While the patient was in such a grave condition a diagnosis of tumour of the occipital lobe was made, but the subsequent recovery of the patient would seem to negative this. The second case was that of a woman, aged 32 years. She was emaciated, anæmic, and the subject of mitral incompetence and bronchitis. On April 28th she returned home from work feeling dizzy, she vomited frequently, and towards night became unconscious. She resisted attempts at examination and rolled about the bed. Her temperature was 103° F. and her pulse was 120. The tongue was dry and coated. The eyes were kept closed and the limbs were rigid. Urine and fæces were passed involuntarily. She vomited during the next day and remained unconscious for four days. Double optic neuritis was present. There was no albumin or sugar in the urine. There was noticed to be pigmentation of the skin and of the mucous membrane of the mouth. This, combined with the great prostration, would justify a diagnosis of Addison's disease, possibly associated with tuberculous deposit in the brain. The patient had a second attack of coma in which she died. There was no post-mortem examination. The third case was that of a woman, aged 53 years. She complained on July 10th, 1896, of severe pain at the back of the head. She was distressed and her manner was altered. There was no vomiting or optic neuritis. After a week she began to have a staggering gait and moved about with her eyes half shut Her memory failed and she neglected her dress and person. She became somnolent and took to her bed. Towards the end of August slight weakness of the right hand was observed and optic neuritis was detected. A diagnosis of cerebral tumour in the left arm centre was made. The skull was trephined on Sept. 10th over the left Rolandic area. The brain bulged, but no tumour was found. A trocar was inserted into the lateral ventricle and a quantity of fluid was evacuated. The patient died 12 hours after the operation. At the post-mortem examination a tumour of the size of a walnut was found in the left frontal lobe. The tumour was a glioma and was not multiple. An erroneous diagnosis as to the position of the tumour was founded on the paresis of the right hand. Similar cases had been described by Bruns and Ferrier.

Mr. J Phillips read notes on a case of Perforating Dysenteric Ulcer of the Colon with complications. A woman, aged 32 years, was admitted to the Bradford Royal Infirmary under the care of Mr. Althorp with sinuses in the right loin. There was a history of influenza twelve months before, followed by "inflammation of bowels" eight months before; the latter illness caused her to keep her bed for two or three months and was followed by right-sided pleurisy. Two months later a lump formed in the right loin which was opened and had discharged ever since. The largest of three sinuses in the loin admitted the finger, which passed up under the diaphragm. The chest was normal. The urine was normal. On April 24th the sinuses were scraped and a quantity of foul granulations removed. The sinus passed upwards and to the right beyond the reach of the finger. Two days later, on removing the packing, egg and milk came from the wound. A duodenal perforation was diagnosed and an anterior gastro enterostomy was performed, but the patient died from pneumonia two days later. At the necropsy, on removing the colon pus was found burrowing up behind the ascending colon to the subphrenic cavity, which was bounded above by the diaphragm, below and in front by the liver, and on the inner side by the kidney and duodenum; in the latter was an aperture admitting two fingers. The diaphragm was perforated and the lower lobe of the right lung was in a condition of septic pneumonia. The retro colic pus was due to perforation of two small ulcers just above the cæcum. The case appeared to be one of dysentery with perforation of a colic ulcer. followed by right subphrenic abscess, and eventually by perforation of the abscess through the diaphragm and duodenum.

Dr. Baxter-Tyrie read notes on some cases of Empyema.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

Exhibition of Specimens.—The Digestive Power of the Peritoneum.—Concealed Accidental Hæmorrhage.—Bacteriological Diagnosis of Puerperal Infection.

A meeting of this society was held at Leeds on May 17th, Dr. T B Grimsdale, the President, being in the chair.

Dr. Lloyd Roberts (Manchester) showed: (1) Multiple Fibro-myoma, the largest growth being intra-ligamentary; the latter was enucleated from the broad ligament and the uterus was removed by supra-vaginal hysterectomy; and (2) a large Fibro myoma of the Fundus removed by abdominal myomectomy, the uterine bed being sutured with silk.

Mr. Walter Thompson (Leeds) showed: (1) Fibro-myoma Enucleated from the Broad Ligament; and (2) Large Spindle-celled Sarcomatous Uterus weighing 12¼ pounds, removed by total abdominal hysterectomy.

Dr. J. Braithwaite (Leeds) showed three Fibroids removed by abdominal myomectomy. In Case 1 the uterine cavity was opened; in Case 2 and Case 3 the cavity did not require opening. Reference was made to two other similar specimens not shown.

Dr. E. O. Croft (Leeds) showed a Complete recent Tubal Abortion. The abdomen was opened and found to be full of blood in which a perfect ovum of about six weeks' development was discovered. The Fallopian tube was unruptured, but its outer end was dilated into a cavity and the fimbriated opening was gaping widely.

Dr. J. B. Hellier (Leeds) showed: (1) Hæmatoma (Ectopic Gestation) removed from the Broad Ligament by Colpotomy (chorionic villi were present); (2) Tubo-uterine Gestation removed by Supra-vaginal Hysterectomy; and (3) Uterus removed for Carcinoma of the Cervix from a patient who had passed a Hydatidiform Mole three months previously.

Dr. Braithwaite (Leeds) read a paper on the Digestive Power of the Peritoneum. Cases were described in which the evidence seemed to point conclusively to the possibility of the absorption of extra uterine gestation products, not only in the early stages, but at full term.

Dr. A. E. L. Wear (Leeds) read a paper on a case of Concealed Accidental Hæmorrhage in which death occurred suddenly from syncope two hours after the uterus had been emptied and all bleeding stopped.

Dr. Arnold W. W. Lea (Manchester) read a paper on the Bacteriological Diagnosis of Puerperal Infection: its Value and Limitations. A more accurate knowledge of the bacterial invasion of puerperal infection was essential if further progress was to be made in the treatment. The uterine lochia from cases running a normal course were in the early days of the puerperium free from bacteria, though after the sixth or eighth day organisms were often present. In cases of suspected puerperal infection some of the uterine lochia might be obtained free from contamination with the vaginal discharge. The technique was briefly as follows. The patient was placed on her side and a duck bill speculum was passed; the vagina and cervix were cleansed with cotton wool. A sterilised glass tube was now introduced into the uterus and suction was made by a syringe. The tube was removed, the ends were sealed, and its contents were taken away for examination. 18 cases of puerperal infection were examined bacteriologically by this method. Cultures of the lochia were made on agar and gelatin tubes and in some of the cases anaerobic cultures were also made. The blood was examined in 14 cases. The results of these observations were as follows. Streptococcic infection was found in 10 cases. In six cases the streptococci were in pure culture, in two cases associated with streptococcus pyogenes aureus and albus, and in two cases with anaerobic bacteria. Of these, three recovered and seven ended fatally. Many of these cases were seen in the late stages of the disease and were of a very severe type. In one case vaginal hysterectomy was performed and the patient died from septic peritonitis which was not checked by the free drainage of the pelvis established by the operation. In nine cases of streptococcic infection cultures of the blood were made on agar tubes. In seven the blood was sterile. even in the later stages. In two cases streptococci were found in the blood. Both these patients died. With regard to staphylococcic infection these organisms were found in five cases. In two cases they were associated with streptococci; in two cases the staphylococcus pyogenes albus and aureus were in pure culture; and in one case they were associated with gas-producing anaerobic bacteria. Three of these cases died and two recovered. Bacterium coli commune was found in one case associated with anaerobic bacteria. As to anaerobic bacteria, these were not investigated in every case, but in five cases they were found to be present. The gas-producing bacillus was found in one case associated with putrefactive changes in the uterus. This case ended fatally. In three cases, although the symptoms pointed to severe puerperal infection, the uterine lochia were found to be sterile. In one the perineal laceration was infected with streptococci but the uterine cavity was sterile. All recovered rapidly. A detailed analysis of these cases was given in the paper. Streptococcic infection was by far the most common form of puerperal infection and presented enormous differences in virulence. In some cases the organisms caused few or no symptoms, remaining limited to the surface of the decidua or placental site. In other cases they rapidly invaded the uterine wall either by the lymphatic vessels—the so-called lymphatic form of septicæmia—or through the veins—the thrombo-phlebitic type; of these, the former appeared to be the most usual course. The extraordinary differences in the results of streptococcic invasion must be attributed to variations (1) in the virulence and type of the organism, and (2) in the resisting power of the individual. Of these factors they did not possess certain knowledge, and as yet bacteriology afforded little help. The gravity of cases must be judged mainly from the clinical symptoms. Diagnosis.—1. If the uterine lochia were sterile, microscopically and to culture, infection was eliminated. The gonococcus, however, might be present; it could be recognised by the microscope and staining. 2. If anaerobic bacteria only could be obtained decomposition was going on in utero. It was a case of sapræmic intoxication. It was possible, however, that at times these anaerobic bacteria might cause severe or even fatal infection. 3. If streptococcus pyogenes was found the case was one of streptococcic infection, but severity of the invasion must be estimated by the clinical signs. 4. If the streptococcus was present with staphylococcus pyogenes aureus or albus the case might be one of "mixed infection," but it was probable that the streptococcus was the infecting organism. 5. If a growth of aerobic bacilli was found there might be bacterium coli commune or certain putrefactive bacteria which caused putrid endometritis. In pure streptococcic infection there was no offensive odour of the lochia, which might be very scanty or in some cases abundant and sanious. The treatment of puerperal infection must be mainly directed by the clinical symptoms, but bacteriological examination was of value. If the uterine lochia were sterile no intra-uterine treatment was required. If the streptococcus was present an attempt should be made to disinfect the uterus by curettage and other local measures. In some cases of streptococcic infection which resisted milder measures hysterectomy might save life, but bacteriology as yet afforded little help in laying down indications for this operation. If bacteria of putrefaction were present exploration of the uterus and removal of decomposing products were essential. The anti-streptococcic serum should be given in cases of streptococcic infection, but a large series of cases bacteriologically examined was essential before a true estimate of the value of this treatment could be made. Serum was given in three cases of proved streptococcic infection. In two cases, though repeated injections were given, no effect was produced and the patients died. In one case the serum had apparently a favourable influence.

EDINBURGH OBSTETRICAL SOCIETY.

Exhibition of Specimens.—Eclampsia and the Thyroid Gland.

A MEETING of this society was held on June 12th, Dr. R. MILNE MURRAY, the President, being in the chair.

The following specimens were shown:—

Dr. D. BERRY HART: 1. A Fibroid Tumour removed by Pan-hysterectomy for symptoms due to pressure and metrorrhagia. 2. An Incomplete Tubal Abortion in which the gestation sac, measuring two inches by one and a half inches, was partly adherent to the fimbriated portion of the tube and half projected beyond the tubal end. The amniotic sac was well seen and the sac wall, averaging from one-half to seven-eighths of an inch in thickness, showed a good deal of blood extravasation. 3. A Parovarian Tumour with markedly twisted pedicle. 4. A Ruptured Ovarian Cyst from a girl, aged 14 years. 5. A large Papillomatous Cyst. 6. An Ovarian Tumour with Myxomatous and Cystic Parts, the latter lined with columnar epithelium.

Dr. R. C. BUIST (Dundee): A Uterus removed for Deciduoma Malignum after Hydatid Mole, with Microscopical Section.

Dr. J. HAIG FERGUSON: A Myomatous Uterus removed by Abdominal Hysterectomy.

Professor A. R. SIMPSON: 1. Labia Minora and Clitoris removed for Epithelioma from a patient, aged 32 years. 2. A bronze copy of the Porro Medal.

Dr. S. MACVIE: Sketches of Varicose Veins in a woman five months pregnant.

Dr. H. OLIPHANT NICHOLSON read a paper on Eclampsia and the Thyroid Gland. The blood during pregnancy increased in volume with a deficiency of the solid constituents of the serum leading to a lower specific gravity. The red blood corpuscles and albumin were relatively diminished while the number of white corpuscles was increased. This was one of the first blood changes which followed thyroidectomy. Other changes occurred in the blood during pregnancy: there was always a toxæmia as a result of fœtal metabolism, and as the fœtus grew the maternal blood would suffer to a greater extent as the amount of fœtal excretion would be larger. Towards the end of pregnancy the margin of safety to the mother was greatly contracted. Unsuitable diet, chiefly of the proteid class, or a sudden chill, or a variety of other circumstances might be sufficient to derange the mechanism and precipitate the symptoms of eclampsia. In pregnancy also there was a hypertrophy of the cardiac muscle and of the muscular coat of the blood-vessels, giving rise to increased vascular tension. It had been suggested that these conditions were dependent upon the toxic condition of the blood. The toxic theory of eclampsia was now the one generally held by most obstetricians and in this connexion the following points might be mentioned. 1. That in every case of pregnancy more or less toxæmia existed and that the blood intoxication became more profound towards the end of gestation. 2. That although the eclamptic state was due to a toxæmia, the toxic agent which excited the convulsions was probably not always the same—there seemed to be different types of the disease. 3. That the toxins might be produced in greater abundance in some cases (twin pregnancies) and that they were generally more virulent in primiparæ than in multiparæ. In the primipara mechanical pressure on the renal vessels might possibly come more into play, while in the multipara a certain degree of immunity against the toxin might have been acquired from previous pregnancies (Allbutt). 4. That in spite of very grave toxæmia no alarming symptoms would occur so long as elimination by the kidneys was sufficiently active. Of the nature of the toxins they knew nothing and there was no clear evidence to show where they were formed. There was some reason to believe that the fœtus played an important part in their production, because after its death the various symptoms usually abated. If the fœtus contributed a part of the poison, then it was unlikely that they could exert any control over its formation, so their efforts in the avoidance of eclampsia might be more usefully directed towards the maintenance of efficient renal function. A checking of elimination by the kidney, more or less suddenly produced, would result in the development of all the symptoms of eclampsia. Therefore the whole question of treatment, prophylactic and otherwise, turned upon elucidating the cause of this renal arrest. What was it that, during the course of the normal elimination of the toxins, suddenly threw the kidney out of gear? Lange noted that out of 25 pregnancies in which the usual hypertrophy of the thyroid did not occur albuminuria occurred in 20. Large doses of thyroidin were administered to pregnant women in whom the physiological enlargement of the gland had occurred and a marked diminution in the size of the gland resulted. One might therefore conclude that the normal hypertrophy of the thyroid gland in pregnancy was the result of a demand for extra secretion to meet the wants of increased metabolism. With a continuous supply of artificial secretion the gland was relieved of the additional strain and resumed its former size. Hallion observed similar effects, and Murray had on this hypothesis used thyroid extract in certain cases of goitre with marked success. Lange also gave thyroidin to a case where there was a pathological enlargement of the thyroid gland during pregnancy. A diminution in size again resulted. He stated that the exhibition of large doses of thyroidin to the mother were not contra-indicated and that no atrophying effects on the fœtus were noticed. In patients suffering from the nephritis of pregnancy thyroidin had distinct diuretic effects. Dr. Nicholson then gave the history of a woman pregnant for the third time; she had suffered from fits at her two previous labours. At the sixth month her urine was normal; a month afterwards it was albuminous and she complained of frontal headache, giddiness, dimness of vision, and her whole body was œdematous and puffy. She was put on a milk diet, confined to bed, and given a diuretic mixture. In the eighth month she had a fit which was treated with bromidia and chloral. The urine was scanty and solid with albumin on boiling. Sphygmographic tracings were taken of both radial arteries and these showed a contracted vessel and a pulse of high tension. The next day thyroid tabloids were begun, at first two and afterwards three a day. In three weeks she was able to engage in household work, the urine was normal in quantity and contained no albumin, and her other symptoms had almost disappeared. 12 days later she gave birth to a full-sized living child; the labour was accomplished without any untoward symptom and her recovery was uneventful. The albuminuria did not return. The œdema in this case was general and not of the kind seen in ordinary dropsy; it was of a much more solid character and only pitted on firm and prolonged pressure. Its character suggested that it was really of a myxœdematous nature. The albuminuria was probably of toxic origin. This might only lead to increased arterial tension, but in greater quantity it would, in addition, produce albuminuria. If the quantity of urine became diminished then the pre-eclamptic symptoms of headache, dimness of vision, &c., would appear; and the next stage was eclampsia. Free diuresis might prevent the development of symptoms. Diminution of urine at the end of pregnancy might be a most important danger signal. Albuminuria and œdema were not always present. High arterial tension, unless accompanied with free diuresis, should be taken as a warning of possible trouble. Symptoms such as these might be and were produced by defective action of the thyroid gland. Iodothyrin increased the excretion of urea and also the metabolic processes of the body. Thyroid extract had a distinct diuretic effect in diseases of the kidney, although apparently negative in healthy persons. It also lowered the blood-pressure and dilated the arteries. The internal secretion of the suprarenal bodies acted in an antagonistic manner, and one might assume that the balance between the two resulted in a certain arterial tone. If the thyroid secretion should become diminished the suprarenal influence on the arterioles, including those of the kidney, would be very profound. As regards treatment in the early stages, when there were increased tension of pulse and diminution of urine thyroid extract should be given twice or thrice daily, and proteid foods should be entirely forbidden at first. Iodide of potassium in small doses had been regarded as a specific for puerperal albuminuria; the iodine had been proved to be picked out by the thyroid gland and might be elaborated into the active iodothyrin. It had been suggested to give infusions with iodide of potassium instead of ordinary saline infusions in cases of eclampsia. If convulsions had already occurred then the use of thyroidin by the mouth would not be rapid enough. Liquor thyroidii, or, better still, fresh thyroid juice, in from 10 to 15 minims, should be given by hypodermic injection and repeated every hour or two if not followed by signs of improvement. For the immediate treatment of the convulsion morphia was the best remedy. It inhibited the various processes of metabolism, and this gave opportunity to the thyroid gland to recover itself. The dose should be large—not less than half a grain for the first injection. Eclamptic patients resisted the dangerous effects of the drug in a remarkable way. One grain and one and a half grains had been employed with uniformly good results. Morphia relieved the spasm of the arteries and diminished blood-pressure. Jardine and others had extolled the use of saline infusions. Probably one of the early effects was to relax arterial spasm and then diuresis would follow.—The President, Dr. C. E. Underhill, Dr. Berry Hart, Dr. William Russell, Dr. F. W. N. Haultain, Dr. J. W. Ballantyne, Dr. Macvie, Dr. James Ritchie, and Dr. William Fordyce discussed the paper, and Dr. Nicholson replied.

Plaistow and Canning Town Medical Society.—A meeting of this society was held at the Public Hall, Barking-road, E., on June 6th, Dr. W. C. Taylor being in the chair, and there was a good attendance.—After a short discussion of some medico-ethical subjects, having a purely local interest, Mr. Percy Rose showed a case of Lichen Planus in a young man and a case of Non-parasitic Sycosis in a middle-aged man.—Dr. J. Biernacki read a paper on the Diagnosis and Treatment of Typhoid Fever, a subject of special interest to the meeting owing to the epidemic prevailing in the district. He laid stress on the fact that, apart from Widal's reaction—a test not always easily available in private practice—there was no royal road to the diagnosis of the disease. In those cases in which continued fever was the only prominent symptom the special difficulty of diagnosis was dwelt upon. The symptoms having diagnostic significance were then considered *seriatim* and their relative values were weighed. With regard to the temperature a rapid rise to about the maximum was stated to be the rule. As regards enlargement of the spleen it was pointed out that the organ was in some cases almost diffluent and it offered very slight resistance to the hand on palpation. Diarrhœa had become of recent years comparatively rare, this characteristic almost amounting to a change in type. Dealing with the question of treatment Dr. Biernacki strongly advocated the routine use of Yeo's chlorine solution as against other intestinal antiseptics, including salol. For severe hæmorrhage, a full dose of morphia given hypodermically was recommended, and for oozing frequently-repeated doses of pure turpentine. He was not in favour of a liberal diet, as now often prescribed. Generally speaking, he used milk lightly skimmed, with an ounce of lactose added to each pint. Peptonised milk given for sickness was very apt to cause diarrhœa, and the same remark applied to strychnine—the most reliable drug in heart failure. For diarrhœa lead and opium pill was stated to be a generally reliable remedy. In the later stage of heart failure alcohol by the mouth should be given in addition to strychnine hypodermically. Digitalis was regarded as at the best of doubtful value and as being often dangerous, especially when the urine was scanty. In cases with high temperature the usual hydropathic methods were advocated, with the continuous pack in lieu of the bath in private practice. Quinine, it was maintained, should be reserved for critically high temperatures, so as to prevent a loss of effect owing to partial toleration. Phenacetin was very valuable in cases of insomnia with restlessness, but sulphonal was dangerous, especially when the typhoid condition was marked.—A brief discussion followed, and the proceedings terminated with a hearty vote of thanks to Dr. Biernacki.

Laryngological Society of London.—A meeting of this society was held on June 7th, Dr. Cresswell Baber, the President, being in the chair.—Dr. de Havilland Hall showed a case of Laryngeal Ulceration which was thought to be due to tubercle engrafted on old syphilis.—Dr. StClair Thomson showed a case of a Malignant Growth of the Larynx.—Dr. StClair Thomson showed one case and Dr. H. Tilley three cases of Frontal Sinus Suppuration cured by external operation.—Dr. Herbert Tilley showed two cases in which Thyrotomy had been performed some years previously for malignant disease; no recurrence had taken place in either case.—Dr. Furniss Potter showed a case of Infiltration of the Left Vocal Cord, probably tuberculous in nature.—Dr. McKenzie Johnston showed a specimen of Sarcoma of the Tonsil which had been removed by an extensive external operation with complete success. He also showed a specimen of Adenoid Growth in which there was a Large Cyst containing Cheesy Material.—Dr. J. Donelan showed a drawing of an Aortic Aneurysm, the only symptom of which had been paralysis of the left vocal cord.—Dr. FitzGerald Powell showed a case of Separation of the Upper Lateral Cartilages of the Nose secondary to Injury and Abscess.—Mr. Walter Spencer showed a case of Ulceration of the Septum.—Mr. A. Hudson exhibited an Apparatus for Vibratory Massage.—Sir Felix Semon showed three cases of Bilateral Abductor Paralysis in Tabes Dorsalis. In one case the inspiratory inward movements of the cords had ceased after tracheotomy, which seemed to add weight to the view that such movements were mechanical in origin.

Neurological Society.—This society met on June 22nd at Manchester on the invitation of the Manchester members. Professor J. Dreschfeld acted as

President —Specimens were shown by Dr Bruce, Dr Judson Bury, Professor Delépine, Professor Dreschfeld, Dr Moore, Dr Mott, Dr Orr, Dr E S Reynolds, Professor Sherrington, Professor Stirling, Dr Trevelyan, Professor A H Young, Dr. Warrington, and Dr Williamson, and Clinical Cases were shown by Dr Ashby, Dr. Bury, Professor Dreschfeld, Dr N. C Haring, Dr Harris, Dr Dixon Mann, Dr Reynolds, and Dr Williamson —In the afternoon the society was entertained at the Royal Asylum, Cheadle, at the invitation of Dr. and Mrs Mould and the committee of management In the evening the members of the society dined at the Queen's Hotel

Reviews and Notices of Books.

Chloroform · a Manual for Students and Practitioners By EDWARD LAWRIE, M B Edin , M R C S Eng , Lieutenant-Colonel I M S , Residency Surgeon, Hyderabad London-J & A Churchill 1901. Pp 120 Diagrams 5s net

THE plan upon which this book is constructed is an excellent one An exposition of the physiological action of chloroform is first given, and upon the facts therein stated principles are enunciated which should, in the writer's view, control the administration of chloroform

In the introduction Lieutenant Colonel Lawrie gives a brief *résumé* of the history of the Hyderabad Commission, but omits adequate reference to the large amount of physiological work done by various workers in elucidation of the action of chloroform Practically his teaching is summed up in these quotations "The action of chloroform is to lower the blood pressure with first unconsciousness, then anæsthesia, then stoppage of the respiration, and then stoppage of the heart" (p 23) "Other things being equal, the more concentrated the chloroform the more rapid the fall, and conversely" "When chloroform is sent to the heart alone it produces no effect: it has no direct action on the heart" (p 24) "When it is sent to the brain alone its usual action is exhibited—viz , lowering of blood pressure, with first insensibility, then anæsthesia, then stoppage of the respiration, and then stoppage of the heart" The vaso motor portion of the fall of the blood pressure under chloroform he considers to be entirely free from danger The fall of blood pressure he regards as being first due to vaso motor causes and then to "weakening of the heart" through narcosis of the respiratory centre This second factor, he admits, "is dangerous, and if chloroform is pushed as far as this stage there comes a time—not easy to define because of the impossibility in practice of drawing a distinct line between the termination of the vaso motor and the commencement of the cardiac falls—when the blood pressure and respiration will no longer be restored spontaneously, although the heart may continue to beat after the breathing has stopped" (p 28) It must, however, be remembered that any distinction drawn between the fall of blood pressure due to vaso motor action and to cardiac weakness and failure is an arbitrary one and is not recognised by physiologists Even the diagrams of tracings given in the book appear to us to support the contention that a continuous fall occurs due to the gradual narcotisation of the medullary centres and shown by the vaso-motor fall That any lowering of the blood pressure is harmless is, we think, open to question The danger is seen more and more as the blood pressure lessens and this Lieutenant Colonel Lawrie admits, only he declines to regard its origin as vaso-motorial Luckily, the discrepancies, grave as they are, between the author's physiological excursions and those of the physiologists do not affect the practical side of his book He is a severe critic on others and will probably be prepared to meet with equally strenuous criticism from those physiologists whose work he impugns and upon whose treatment of himself he animadverts

Leaving the purely controversial passages of the book we pass to what constitutes the best part of a most valuable exposition of the practical side of the subject In Part I a really admirable account is given of the physiological action of chloroform In it we find plainly stated the dual danger arising from the use of that anæsthetic—viz , that due to the fall of blood pressure and that incident to interference with respiration On p 32 the weakening effect upon the heart brought about by struggling and breath holding is insisted upon and on p 63 the same subject is looked at from the practical side, and respiratory embarrassment is shown to be the case of heart failure in such conditions as diphtheria, empyema, chronic alcoholism, and renal disease Throughout Lieutenant-Colonel Lawrie's practical rules one is struck again and again by the fact that his clinical acumen often leads him to warn against some of the perils which are minimised when he treats his subject as a controversialist

The directions in Part II , which applies physiology to practice, are very good and deserve the closest study The dangers of over dosage leading to excessive fall of blood-pressure are well put To many it will appear unnecessary at the present day to insist upon the pulse being neglected as a guide during chloroform giving, while the adoption of the routine use of morphine injection during chloroform narcosis is one to which many practical surgeons will take exception Although we are told that the rules given practically constitute Syme's method we confess that it is difficult to recognise in Lieutenant-Colonel Lawrie's precise rules, his measured quantities, and repeated reference to the dangers of falling blood pressure, the rough and ready method which was in vogue in the time of Syme The plan Lieutenant-Colonel Lawrie recommends in the instance of children contravenes his principles in many important ways and is, we submit, dangerous What is, however, beyond all praise is the insistence in his pages upon the absolute necessity for the chloroformist to give his undivided attention to his task To this and to the rule that irregular breathing, struggling, and holding of the breath are danger signals and that no chloroform must be given until they have ceased and the *colour of the face* is normal, we venture to think Lieutenant Colonel Lawrie owes much of his success as a chloroformist His rules with regard to chloroform in midwifery are those usually adopted It has been the custom, however, departing from the teaching of Snow, to regard *partial* narcosis as unsafe for even short operations and especially so in the case of dentistry Lieutenant-Colonel Lawrie does not follow this custom He believes in partial anæsthesia, he does not admit any danger of shock to the partially chloroformed patient, and he regards chloroform as a better anæsthetic for dental operations than nitrous oxide gas With the reservations indicated we have no hesitation in commending Lieutenant Colonel Lawrie's book on chloroform as one of the best we have seen and as a most admirable guide to the use of that anæsthetic If we cannot admit all the author's theory we can in most cases heartily accept his practice

Clinical Examination of the Urine and Urinary Diagnosis By J BERGEN OGDEN M D , Instructor in Chemistry, Harvard University Medical School London and Philadelphia W B Saunders and Co 1900 Illustrated Pp 416 Price 12s 6d

THIS volume is intended as a clinical guide for the use of practitioners and students of medicine and surgery, and the aim of the author has been to present in as concise a manner as possible the chemistry of the urine and its relation to physiological processes, the most approved methods of analysis, both qualitative and quantitative, and the diagnosis of diseases and disturbances of the kidneys and urinary passages We may congratulate the author on the success of his endeavours and an excellent manual on the examination of the urine for clinical purposes is the result.

The work is divided into two parts. In the first the chemical and microscopic methods of examination are described, and numerous illustrations, many of which are original, have been introduced, thus greatly adding to the value of the letterpress. The clinical conclusions that may be arrived at are clearly and concisely stated and all the matters dealt with are fully up-to-date.

In the second part of the book especial attention has been directed to diagnosis, the various pathological conditions of the kidney are brought under review, and the differential diagnosis of disturbances and diseases of the kidneys and urinary passages is discussed, whether those diseases are local or general, medical or surgical. A brief enumeration of the prominent clinical symptoms of each disease is given, and, finally, there is a useful chapter on the Urine in Diseases outside the Urinary Tract. An account is given of the characters of the urine in such diseases as enteric fever, pneumonia, and acute yellow atrophy of the liver. These phenomena are found described in most text-books on medicine under the various diseases in which they occur, but it is a matter of considerable convenience for reference to have them collected together as is done in Dr. Ogden's book.

We consider this manual to have been well compiled and the author's own experience, so clearly stated, renders the volume a useful one both for study and reference.

Atlas und Grundriss der Ohrenheilkunde. Untermitwirkung von Professor A. POLITZER in Wien. Herausgegeben von Dr. GUSTAV BRUHL, Ohrenartz in Berlin. Mit 244 farbingen Abbildungen auf 39 Tafeln nach Original Quarellen von Maler G. HAMMERSCHMIDT und 99 Text-Abbildungen. (*Atlas and Essentials of Diseases of the Ear.* Under the supervision of Professor A. POLITZER of Vienna. Edited by Dr. GUSTAV BRUHL, Aurist in Berlin. With 244 Coloured Drawings in 39 Plates from original dissections, by G. HAMMERSCHMIDT, Artist, and 99 Engravings in the text.) München: J. F. Lehmanns. 1901. Pp. 284. Price 12 marks.

DR. BRÜHL has given us an extremely beautiful atlas which embraces both the normal and pathological states of the ear and temporal bone. In his work he had the advantage of Professor Politzer's advice and assistance, and that alone is a sure guarantee of the quality of the book; it amply supplied that want of personal experience that Dr. Brühl's age would otherwise have entailed.

The illustrations of the normal bone are excellent and in Table 8 are drawings of two temporals, bones showing the position of the labyrinth; these bones had been decalcified and the labyrinth filled with metallic mercury, a method which has been applied also by Dr. Brühl to the accessory sinuses of the nose and depicted in Table 12, which will be a most useful plate for careful study.

The parts exposed in operations for intracranial lesions secondary to suppurative disease of the middle-ear are shown in Table 12 both before and after removal of the dura mater and will be a boon to those who for the first time find themselves called upon to deal with a case necessitating opening the skull in the neighbourhood of the ear.

Tables 36 and 39 consist of 48 drawings of morbid conditions of the tympanic membrane which have been selected with great skill and judgment; from them the practitioner will derive a knowledge hard to obtain by other means and will also have a handy and reliable guide to assist him in recognising and classifying what he sees by means of the speculum.

The plates showing microscopical preparations of the normal histology and pathology are very good, but if anything show conditions too rare to be of much service to any save the aural pathologist, but to those unable themselves to possess the actual preparations they will render clear the minute structure of the parts.

The drawings are taken from specimens in possession of Professor Politzer and of Dr. Brühl and the source indicated respectively by (P.) and (B.). The whole of Plates 38 and 39 are by Dr. Brühl, but the remainder are drawn by an artist, Herr G. Hammerschmidt.

Dr. Brühl devotes 62 pages to the Anatomy and Physiology of the Ear and illustrates it with some particularly lucid diagrams, all of which will render the subject clearer to the student. In this section a diagram of the cochlea deserves attention; it shows the parts of the organ of Corti with the musical notes with which they are connected according to Helmholtz, and from which the observer is able to deduct the particular part in which the lesion lies, though it is not, unfortunately, any aid in treating deafness.

In the chapter on Examination of Cases the most minute instructions are given—in fact, the great attention paid to this subject in German text-books is worthy of imitation. The general present state is to be noted, hints are afforded as to what is noteworthy and to what each sign may point, thus, icterus suggests pyæmia, and facial palsy caries. In the text Dr. Brühl indulges freely in abbreviations which naturally do not assist the English reader unless his knowledge of German is fairly good. In the use of the Siegle's speculum Dr. Brühl indicates the information to be derived and how to obtain it. Dr. Brühl naturally follows in Professor Politzer's footsteps as to the various indications for the use of Politzer's method and of the catheter to the middle-ear, as he, indeed, follows his teacher throughout, and nowhere is it more marked than in his descriptions of intra-tympanic operations.

As an illustrated text-book of the essentials of aural therapeutics Dr. Brühl's work is most useful and practical; it is a pleasant book to refer to and will be of considerable value to teachers no less than to students; it surpasses any previous work of the kind in its illustrations, is compact and well got up, and reflects great credit of all concerned in its production.

LIBRARY TABLE.

The Child: His Nature and Nurture. By W. B. DRUMMOND, B.M., C.M., M.R.C.P. Edin. Temple Primer Series. London: J. M. Dent. 1900. Pp. 146. Price 1s.—This recent addition to the Temple primers is intended as an introduction to the study of the physical and mental development of the child. Though quite elementary in scope it is thoroughly practical in its aims and should be of the greatest assistance to teachers and others who have the charge of young children. Dr. Drummond writes in an elegant style, and considering the small space at his disposal he has managed to condense an enormous amount of information within the narrow limits of 146 pages without at any time attempting a mere abstract or epitome of the subject. For many years there has been developing in our midst a new conception of education which looks to the individual to be educated and not to the knowledge to be crammed into the learner. To Pestalozzi and to Froebel is chiefly due the crystallising of the method in what is now known as the kindergarten system, and this method in all its latest developments forms the text of Dr. Drummond's observations. He explains very fully how the senses, the emotions, the intellect, and the will may be directed into the best paths and how bad habits may be prevented and the physical and moral welfare of the growing child best encouraged. Child study is a comparatively new branch of education and in this country has hardly yet reached the stage of development to which it has attained in Germany and America as regards the intellectual side and in Sweden as regards the physical side. This little work, which is within the reach of all who care to study the subject, should act as a real and beneficial stimulus to this most important branch of education.

The Extermination of Love. By E. GERARD. Edinburgh and London: William Blackwood and Sons. 1901. Pp. 322. Price 6*s.*—This book is described as a fragmentary study in erotics and the description fits it very well. The hero is a visionary scientific enthusiast who marries a girl of about 17 years, and who would have entirely ignored his marital duties on the bridal night had he not been primed with champagne, a beverage which he is made to partake of under the impression that it was water. Owing either to the champagne or to the young mother having been nourished after Professor "Henker's" theories, the offspring turned out a girl instead of a boy, and recalled in her appearance the various fruits and vegetables upon which her mother had been fed. The end of the book is that the hero, Dr. Peterstorff, gives a lecture at a medical congress upon a serum by which he hopes to exterminate love. At the ball which follows the lecture he becomes involved in a duel and is wounded. He is trephined and a cerebral tumour is discovered which is removed. He recovers both his health and his senses at the end of March, with the result that in the spring of the following year his wife has twins, "rosy, dark-eyed cherubs, true children of love." This is the story, and a very silly one it is.

B. Bradshaw's Dictionary of Bathing-places, &c. London: Kegan Paul, Trench, Trübner, and Co, Limited. 1900 Pp. 414. Price 3*s.* 6*d.*—This useful little publication comprises a vast amount of information upon baths, mineral waters, "air cures," and the like. So far as we can test it the information seems trustworthy. The "suggestions" for travellers are very good, and we are pleased to see recognition of the fact that a natural mineral water is superior from a therapeutic point of view to an artificially prepared one, even though the latter may be chemically indistinguishable from the former. We may again call the editor's attention to the fact that jaundice is not a disease.

Burdett's Official Nursing Directory, 1901. By Sir HENRY BURDETT, K.C.B. London: The Scientific Press, Limited. Pp 420. Price 3*s.*—This Directory is, as is explained in the preface, "official" only in the sense "that the information given in it relating to nurses is either derived from official sources or has been verified by competent authorities." It is, however, a useful book, and besides the directory of nurses it contains a valuable abstract of laws affecting the nursing profession and a list of training schools, together with a table of provident funds, examining bodies, and associations for the benefit of nurses.

Beauty Adorned. By Mrs. HUMPHRY. London: T Fisher Unwin. 1901. Pp. 316. Price 1*s.*—Mrs. Humphry, who is the "Madge" so well known to readers of *Truth*, gives some very excellent advice in this little book about beauty and the matters which go to enhance and to preserve it. Her advice as to personal cleanliness, washing, and taking care of the hair: upon dress, food, and drink is very good, and we are glad to see that she gives a very decided warning as to the use of celluloid combs (p. 25) To one passage in her book we must take exception. It appears on p. 59 and has reference to the choice of spectacles. "The choice of spectacles should always be made under the advice of an experienced optician. . .... He will also be able to advise his customers when a visit to an oculist is imperatively necessary." He might be able to do so, but we very much doubt whether he would. But it goes without saying that the choice of at any rate the first pair of spectacles should always be made upon the advice of a duly qualified medical man who has studied diseases of the eye and the various errors of refraction. Mrs. Humphry also recommends (p. 61) that when anything gets into the eye "it is advisable to go at once to a chemist or a doctor." With this advice, so far as concerns a chemist, we cannot agree. The eye is far too delicate and valuable an organ to be meddled with by amateur practitioners, whether opticians or chemists. Apart from these passages, however, Mrs. Humphry's advice is sound.

Cerebral Science: Studies in Anatomical Psychology. A Book for Artists, Physicians, and Teachers. By WALLACE WOOD, M.D., Professor of History of Art in the New York University. London: Baillière, Tindall, and Cox. 1901. Pp. 128. Price 3*s.* 6*d.* net.—Dr. Wallace Wood's effusions, if somewhat incomprehensible, are amusing. The last work of his which we saw was a little pamphlet on Love which is situated in the anterior metopic lobule.[1] We do not quite understand what the work now before us is about, but according to Dr. Wood's preface, "out of the theoretical science of comparative psychology, founded upon comparison of the brain gyres, will grow the practical science ethology." The psychology of the lamb is thus described: "The sheep is a blockhead, doubtless, and the tiger has a fine intellect—that is to say, a fine intellect posterior—that is, a sanguinary intellect; but in the blockhead of the lamb is a divine spark, a magic light by which he leads the procession forwards." Turn we now to the cat. "What qualities have made the Miow?" We should explain that Miow is Egyptian for cat. Dr. Wood goes on: "Sensitivity, sharp ears, sharp eyes, sharp nose, sharp tongue, sharp feelers, sharp tentacles, *akinoia* at its height. . .... Vigilance is a fine quality. The panther wakes while others sleep. The early bird catches the worm—foolish worm! foolish bird! ...... Heat is a fine property. The Miow has heat. ...... The griffers are nocturnes." We are obliged to Dr. Wood, but what *does* he mean?

JOURNALS AND MAGAZINES.

THE *Practitioner* this month somewhat belies its title. The number is almost entirely engrossed with the subject of hospital management, a topic with regard to which the average practitioner, once his student days are over, can spare but little time. To such, however, as can busy themselves with the internal affairs of hospitals the *Practitioner* provides a series of articles dealing with the matter from all the chief points of view. The views of a hospital physician are given by *Dr. Issambard Owen and Dr. A. E. Sansom* and others Mr. Charles Burt and Mr. John Murray represent lay committee-men, and the Rev. Henry Wace also writes on the subject. A few pages on Diseases of the Digestive Organs by Dr. H. D. Rolleston represent the technical matter of this number. Air-swallowing or aërophagy and black vomiting in appendicitis are among the subjects that Dr. Rolleston deals with

Medical Magazine.—The early recognition of pulmonary tuberculosis is an important subject well considered by Dr. J. E. Squire in the June number. Dr. Squire points out how easy it may be to miss vague indications given by the earliest stages of pulmonary tuberculosis. With no physical signs to direct his suspicions the practitioner is apt to miss the meaning of anæmia, gastric disturbances or irregular temperatures really indicating the onset of phthisis. The extent to which confirmatory evidence may be obtained from tuberculin, skiagraphy, or bacteriological examinations of sputum is also discussed. Dr. F. Parkes Weber provides an interesting article on Fatness, Overweight, and Life Assurance, and Mr. J. Foster Palmer's valedictory address to the Chelsea Clinical Society is a contribution that gives some pleasant enough learned levity. The late Sir B. W. Richardson and his work are the theme of an enthusiastic, if somewhat ill-proportioned, article. The toxic origin of neurasthenia and melancholia is the most important matter alluded to in the annotations.

---

[1] THE LANCET, August 25th, 1900, p 597.

Mercy and Truth.—In the June number there is an illustrated article of several pages in length entitled "Work among Women in Yezd," a Persian city, the writers being Mrs. Malcolm, M.B., Miss Mary Bird, and Miss Brighty.

New Inventions.

A MODIFIED PLASTER SPLINT.

The splint is made of two pieces of ordinary thin flannel and is stiffened by pieces of flannel soaked in plaster or, better still, by strips of plaster bandage, soaked and laid evenly between the layers of the flannel. The larger piece of flannel is wide enough to make the splint sufficiently long and long enough to encircle the limb and to allow each end to be turned back at least half way round the limb again. The second piece of flannel is of the same width as the first but only long enough to extend halfway round the limb. These two pieces are sewn together by the middle along the whole width (see Fig. 1 at o). Now the seam joining the two pieces is tucked in along the whole width and sewn along the line *b* (see Fig. 2). This fold is kept towards the limb and is placed where the hinge of the splint is wanted. The fold in practice is less than a quarter of an inch deep and is not felt by the patient, especially as no plaster is laid over it. If it is made deep the hinge of the splint will be too free. The fold should be exactly in the middle of the front or side of the limb, as the case may be, all the way down. The ends of the larger piece of flannel should then be carried over and tacked together exactly opposite the hinge, the flannel being pulled fairly tight over the limb and, if necessary, V-pieces cut out to make it fit neatly. There are then four flaps of flannel, two of which will be turned over the front of the limb and two over the back. All is then ready for the plaster. The strips should be well soaked and laid longitudinally on the flannel sheathing the limb, care being taken that the strips extend well into the grooves formed by the junction of the flaps with the sheath. When enough is laid on for the purpose the flaps should be turned back over the plaster and fixed with a bandage. In practice it is found that the splint is more comfortable if the plaster strips are an inch or so short at each end, so that the sheath and flaps are somewhat longer than the plaster stiffening. To remove the splint take off the bandages and cut the tacking cotton along the groove on either side. The splint will open altogether in front but at the back it will only open down to the hinge.

Fig. 1.

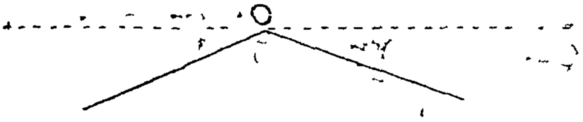
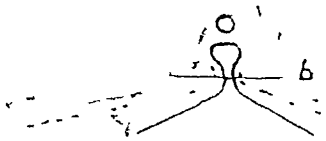


Fig. 2.

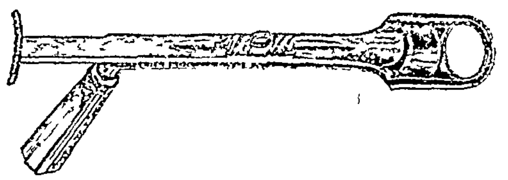


The dotted line shows the first piece of flannel; the unbroken line shows the second piece.

Bath J. R. Benson, F R C.S. Eng.

THE ANATOMICAL TONSILLOTOME.

One frequently sees even expert operators return to the charge and have to make a second cut with the tonsillotome before all the enlargement is satisfactorily removed. The explanation of this is, I think, to be found in the shape of the opening in the instrument not being of such a nature as to correspond anatomically with the form of the tonsil. The tonsil is elongated vertically, even when enlarged, and unless the guillotine opening is of such a shape as to include the whole of the enlargement there is always sure to be more or less left behind; especially is the lower point of the tonsil unremoved and this continues to cause irritation and cough. This is obviated by the use of the "anatomical" tonsillotome. Messrs. Beauchamp and Co., surgical instrument makers, West Smithfield, London, E.C., have made the instrument for me.



Welbeck-street, W. Wm. Stuart-Low, F.R.C.S. Eng.

JEQUIRITOL.

We have received a box containing samples of jequiritol (Merck) from Messrs. Merck, prepared according to the directions of Dr. Römer of Würzburg. It will be remembered that some years ago an infusion of the seeds of the *Abrus precatorius*, which are small, subspherical, and red, with a black spot at one end, was strongly recommended by M. Wecker of Paris as an efficient agent in the cure of purulent ophthalmia of adults and of the granulations that are so common in that affection. Its curative effects were stated to be due to the circumstance that the infusion excited violent inflammation of a different kind from that causing or accompanying purulent ophthalmia, which was accordingly arrested whilst the granulations underwent absorption. The experience of many surgeons, however, rendered it certain that the inflammation excited by jequiritol infusion was not itself unattended by danger and when cases of deep ulceration of the cornea or even of sloughing of that membrane were met with it was felt by most ophthalmic surgeons that it was too dangerous a remedy to be prescribed until some means were found to regulate its action. The experiments of Ehrlich in 1850 led him to the conclusion that animals could be rendered immune to the action of abrin and that they then generated in their systems a specific antitoxin. This agent, however, could not be preserved and quickly lost its activity. The pharmaceutical firm of Merck, however, continued Ehrlich's researches and have produced, and have been able to preserve, a special antitoxin which, introduced into the blood, enables a dog or rabbit to resist very powerful doses of jequiritol applied to the eye—doses that would certainly destroy the eye in animals not rendered immune. The jequiritol serum obtained by Messrs. Merck has been experimented with by Dr. Romer who has found that in the first place it possesses, when locally applied, a distinctly marked curative action on inflamed conjunctiva whilst it is itself innocuous. Experiments made by Dr. Romer, in conjunction with Dr. Hess, have satisfied both observers that it is the best means for the removal of nebulæ of the cornea. It accomplishes this by first causing serous transudation into the substance of the cornea, and then as the fluid is absorbed the nebula disappears. By increasing the strength of the doses of jequiritol, which can be accomplished with great exactness, the precise degree of inflammation can be determined. The tubes are numbered from one to four, and in cases requiring this form of treatment one or several drops of the tube marked 1 are introduced into the conjunctival sac; if in the course of 24 hours no inflammation follows a drop or two of the tube marked 2 are instilled, and so on until the desired degree of inflammation with delicate croupous membrane and œdema of the lids is excited. In the same box are contained some small capillary tubes containing jequiritol serum and in the event of the inflammation of the conjunctiva induced by the jequiritol being too strong a little of the jequiritol serum is dropped into the eye and the inflammation at once subsides. Dr. Römer finds that this treatment is most useful in children with tuberculous and eczematous pannus, vision being rapidly and greatly improved

THE LANCET.

LONDON: SATURDAY, JUNE 29, 1901.

The National Hospital for the Paralysed and Epileptic: Report of the Committee of Inquiry.

WE publish to-day the gist of the report of the committee of inquiry chosen by a committee of governors of the National Hospital for the Paralysed and Epileptic, Queen-square, who were appointed for that purpose at a meeting of governors held in March. A full report of the proceedings at this meeting appeared at the time in our columns.[1] Our readers will remember that this was the outcome of a long and, on the part of the Board at least, at times acrimonious discussion, arising primarily out of a demand on the part of the medical staff for direct representation on the Board of Management. The demand had been made several times in the last 10 years but without effect. Various alternative schemes had been tried, but these had either been found unsatisfactory or had been summarily discontinued by the Board without explanation. The staff felt in the end compelled to address themselves directly to the governors and to call their attention to the faulty administration of the hospital under the present system, to the inadequacy of the nursing staff for the duties required of them, to the insufficient supply of linen, to the unsatisfactory character of the food supplied both to patients and to nurses, and to the inadequate nature of the accommodation provided for the latter. They also drew the attention of the governors to the office of secretary and general director as one which was anomalous and which had proved prejudicial to the interests of the hospital.

Such were the allegations which the committee of inquiry had to consider and to examine. That their task was no light one, and that they have spared neither time nor trouble in carrying it out, will be evident to anyone who carefully examines the record of their findings. In the first place they find that the medical committee were justified in addressing their statement directly to the governors without previously communicating with the Board of Management. The significance of such a finding will not be lost upon anyone who has interested himself in this controversy. With regard to the allegations in this statement, they find that at the beginning of last year the supplies to particular wards fell short more often than ought to have been the case, and at that time also the quality of certain articles of diet afforded good ground for complaint. They also find that the milk was formerly watered. It is also found that even now, although there has been an increase since the beginning of 1900, the nursing staff, notwithstanding that its members are zealous and, as a rule, efficient, is not adequate to the duties required of it and that the accommodation provided for some of the nurses is unsatisfactory. The supply of linen to the wards they also consider to be deficient, and that this is especially the case with regard to the draw-sheets. The latter also are badly and insufficiently washed, a circumstance which the members of the committee verified by actual inspection.

On the matter of the representation of the staff the report pronounces no uncertain verdict. It is recommended that the Board of Management should be increased by the addition of two members chosen by the medical committee from the medical staff—the exact mode and degree of representation asked for by the medical committee—and the opinion is expressed that this mode of representation is a very proper one and the smallest concession which is reasonable. The committee also express their belief that if direct representation of the medical staff had been part of the original constitution of the hospital the present schism in the body would never have arisen or would speedily have been healed.

With regard to the office of secretary and general director the abolition of the office is recommended and alternative schemes for securing efficient medical and administrative control are suggested. The committee express grave doubts whether such an office could ever be satisfactory in such an institution. But if it was to be satisfactory it could only be so under conditions of greater watchfulness and interest on the part of the Board than obtained at the National Hospital for the Paralysed and Epileptic and in the hands of a man who was possessed of tact and judgment as well as of ability, and who carefully kept himself from exceeding the powers with which he was invested. "Unfortunately," they significantly add, "in the present case none of these conditions have existed." Of the energy and ability which the present incumbent of the office, Mr. BURFORD RAWLINGS, has brought to the service of the hospital the committee show adequate appreciation, and they direct attention to the claims which he has on the gratitude of the institution should any changes be instituted as a result of their report. They further point out in this connexion that in most, perhaps in all, of his dealings with the medical staff the secretary and general director received the approval and support of the Board of Management, and that on them rather than on him rests the responsibility for the part which he played. As indicating the peculiar duties which Mr. RAWLINGS arrogated to himself, we need only mention his declining to deliver to the chairman of the Board a sealed letter from a member of the staff and his refusal to admit a patient recommended as suitable by both a physician and a surgeon to the hospital on the ground that the applicant was in his opinion an idiot. The case was really one of traumatic epilepsy and was subsequently operated on successfully at another institution.

It is not quite easy to understand or to appreciate the position and acts of the Board of Management of this hospital. This body consists of 12 members. The average attendance at its monthly meetings was five. It also constituted a house committee, which should have met once a fortnight—26 times a year. In two years this committee met 29 times (instead of 52), and at 18 of these "meetings" only one member was present! There was also a finance committee, of the proceedings of which no record was kept. This committee apparently looked at and initialed the tradesmen's bills, one member formed a quorum, and apparently a quorum was sometimes obtained. Of the duties usually performed by a finance committee of a hospital this committee had apparently no knowledge. If the secretary and general director had on many occasions shown a tendency to amplify his jurisdiction beyond its legitimate bounds the Board of Management cannot be accused of having done more than its duty.

---

[1] THE LANCET, March 30th, 1901, p. 931.

With the matters of detail concerned with structural alterations this is not the time to deal. And we need only refer to the guarded pronouncement of the committee in reference to out-patients' payments and their recommendation as to some of the financial arrangements with regard to the funds of the charity. All that we have to do at present is to point out that a grave indictment has been brought against the Board of Management of this hospital; that this has been proved in all its essential points, and that the process has revealed a state of matters urgently calling for reform. The report indicates the lines on which reform should proceed. We do not doubt that the governors, with whom the ultimate responsibility rests, will respond to the call made upon them to reform the institution. Many of the rules and practices of the hospital, as the report points out, are such as to seem almost like an attempt to drown the voices of the governors. Had this not been so reform would have come long ago. Indeed, the necessity for it might never have arisen. But it is not too late, and we are sure that the whole medical profession will unite with us in congratulating the medical staff upon their long and strenuous fight to establish on broad foundations an institution for which they have already done so much, and in expressing the hope that the governors, by adopting the report which we have been considering, may ensure the continuance of the relief afforded at this hospital to a peculiarly distressing class of maladies and at the same time of the opportunities for obtaining a still more intimate and profound knowledge of their nature and treatment.

Local Authorities and Tuberculosis.

THE Camberwell Borough Council has resolved to take an important step, and one which will place it in the position of a pioneer of sanitary reform among the councils of the new metropolitan boroughs, a position which, it claims, was occupied with relation to vestries by the late Vestry of Camberwell. It proposes to prosecute, or rather to prepare to prosecute, vendors of tuberculous milk under the sixth section of the Food and Drugs Act for selling milk not of the "nature, quality, and substance" of that demanded by the purchaser. In order to prevent the infliction of hardship upon the milk-vendors by springing upon them a series of such prosecutions without warning it will not initiate these proceedings at present, but will in the meanwhile cause samples of milk to be taken and examined, so that the sellers may be made aware of the results of such examination and may be enabled to make arrangements for the obtaining of a healthy milk-supply should it be found necessary for them to do so. The resolution passed by the Camberwell Borough Council embodied the recommendation of its Public Health Committee, which in its turn acted upon a report presented to it by Mr. E. C. BOUSFIELD, its bacteriologist, who set out the facts and made his proposal with commendable clearness and succinctness.

We have every sympathy with the movement that seems thus seriously about to be initiated. The sale of tuberculous milk constitutes a real danger, particularly to the young and in districts in which milk businesses are conducted upon a small scale by tradesmen who in no way control, and who do not at present seek to control, their sources of supply. Large dairy companies who purchase their milk by contract with farmers selected by them can and do bind the farmers to permit their farms to be periodically inspected in order that any contamination of the milk in the process of feeding or milking the cows or of sending the milk to the distributing agents may be, if possible, avoided. In such cases as these any milk found to contain germs of tuberculous disease could easily, or comparatively easily, be traced to the particular cow or cows infected. In the case of the small trader the matter will perhaps be more difficult, while the prevention of a repetition of the danger may also not be so easy. We need not go into details, but obviously if the milk does not reach the retailer in the churn in which it originally leaves the farm will be difficult to follow it back to the cow or cows which produced it, and it is also obviously possible for dealers deliberately to conceal and to disguise its origin where it is worth their while to do so. However, there can be no doubt that the first step in the path of progress will be made when it has been established that the vendor of tuberculous milk has been, and, if detected, will be, convicted and punished for selling that which is not of the nature, substance, and quality of the article demanded by the purchaser of "milk." As to whether this end will be attained without further difficulty by the Camberwell Borough Council we are not in a position to say. That body will no doubt consult its legal advisers before it takes the contemplated step, and its legal advisers will have before them the case of GOULDER *v.* ROOK and three other similar cases argued before the Divisional Court on May 13th last, and referred to by Mr. BOUSFIELD. These cases have not yet been reported, except in the newspapers, and the *Times*' account of them does not contain observations mentioned by Mr. BOUSFIELD as having been made by Lord ALVERSTONE in the course of the hearing, to the effect, apparently, that vendors of tuberculous milk might be convicted under the sixth section of the Food and Drugs Act, just as certain vendors of arsenical beer had been in the cases then before the court. Lord ALVERSTONE, according to the *Times*, said that the question was one of fact, that the magistrates had found as a fact that the beer was not of the nature, substance, and quality of the article demanded, and that he could not say that there was no evidence in support of that finding. He did not, however, suggest that any accidental presence of deleterious matter in an article of food would necessarily make it not of the nature, substance, and quality demanded, and he added that each case must stand by itself; while finally, of the four appeals before the court, two were allowed, one was dismissed, and one was sent back to the magistrates for conviction.

We must not be taken as disparaging or in any way seeking to discourage the action of the Camberwell Borough Council in writing thus of its determination to check as far as it can the spread of tuberculosis We would rather express our regret that the law should not be clearer on such subjects and that it should have to be elucidated by *expensive trials* and appeals. But whether an *obiter dictum* of Lord ALVERSTONE justifies proceedings against vendors of tuberculous milk under the sixth section of the Food and Drugs Act or not, we would point out that the Camberwell Borough Council will have put itself in a far stronger position than that occupied by those who prosecuted the retailers of arsenical beer if it adheres to the course which Mr. BOUSFIELD proposed to it. The beer-sellers could urge *in defence or in mitigation of penalties that they knew* nothing of the arsenic in the beer that they dealt in. The Camberwell Borough Council proposes to warn sellers of tuberculous milk of what they are selling before taking legal proceedings; and whether the Food and Drugs Act applies or not we should be sorry to suggest that the law of England cannot prevent and punish the deliberate and conscious sale of milk laden with the germs of a deadly disease.

◆

The Inclusion of Anæsthetics in the Medical Curriculum.

THE historian who deals with the changes of medical thought during the latter half of the Victorian era will find much to say concerning the increased recognition of the importance of the administration of anæsthetics For some time after SIMPSON'S great discovery and the revival of the use of ether as an anæsthetic it became at first doubtful whether anæsthesia had "come to stay," and when that question had been definitely settled in the affirmative little or no progress was made in systematising the methods employed or determining who should be their exponents In the United Kingdom specialisation has answered the problem as far as the hospitals are concerned. In the country towns and outlying villages no equipment of this nature can ever exist The practitioner must be prepared to undertake the giving of anæsthetics among the multifarious duties of his daily round. We have pointed out on more than one occasion, and notably in a leading article published in THE LANCET of Oct 27th, 1900, p. 1215, that but few men have ever had preliminary training in anæsthetics, and the majority must therefore be placed at a great disadvantage when called upon to give chloroform or ether. Too many students fail to realise that their hospital career is all too brief and the chances given to them during it pass never to return. In a paper read recently before the Society of Anæsthetists the Vice President, Dr. DUDLEY BUXTON, urged that every student should be compelled to satisfy the Board of Examiners as to competence in giving anæsthetics before being allowed to practise his profession. This paper and the discussion which followed revealed the fact, which we believe has not been sufficiently appreciated, that really only a very small percentage of our medical students are sufficiently taught the use of anæsthetics. The machinery for teaching exists, and in most, if not all, of the London hospitals the accredited anæsthetists actually lecture and give demonstrations to such students as care to attend. A certain number of students ambitious to hold hospital appointments are obliged to produce certificates of their competence before they can take up their hospital duties, but for the majority no such compulsion has been practised

We understand, however, that this serious defect in our medical curriculum is shortly to be amended The various hospital authorities have been approached by the English Royal Colleges and requested to furnish information as to what instruction is at present given in the administration of anæsthetics, and we believe that it is an open secret that ere long it is proposed to include this subject in the compulsory curriculum and to insist upon every student furnishing evidence of his competence to conduct an ordinary case of anæsthesia before his admission to a qualifying examination. The re-organised University of London is also admitting teachers of this subject to the Faculty so that much has already been accomplished in the direction of placing this vitally important subject on all fours with the other courses of study at present embraced i the medical curriculum.

This is certainly matter for congratulation, for, as it has been insisted upon on many occasions in our columns, both the instruction in anæsthetics and the status of the teachers of that subject have been unfortunately too long neglected. The requirements of modern surgery necessitate not only the precision and accuracy of the operator but the efficient conduct of the anæsthesia The duration of an operation at the present day is unavoidably longer than it was in the days of LISTON, and not only is absolute anæsthesia requisite for the delicate manipulation of many surgical procedures—such, let us say, as of a gastro enterostomy—but in such cases the safety of the patient may depend on the knowledge, nerve, and expertness of the chloroformist. The day has passed when the senior student or any chance onlooker was entrusted with the task of producing and maintaining anæsthesia It is not too much to say that not only may the operation be marred and rendered impossible, but even the life of the patient may be sacrificed by the carelessness or inexpertness of the inexperienced anæsthetist It is recognised that to obtain even ordinary skill in managing a case of ether or chloroform narcosis a student must receive the most careful training and must, further, be taught the practice as well as the theory of his subject. At present most medical men only learn this after they commence practice, and so they seldom attain the nerve and experience which alone can make a reliable anæsthetist In the near future we may hope that every medical man will have acquired some acquaintance with the practice of producing anæsthesia while yet in the receptive stage of his student life. We do not wish to imply that there will no longer be need of the services of experts—men of wide and everyday experience in what is one of the most difficult and arduous duties of the medical profession—yet all students can be made competent They can learn to avoid the recklessness of ignorance and the equally dangerous timidity of inexperience, and this is a great gain alike to themselves and to the public at large.

The Guild of St. Luke and St. Luke's Day.

THE brethren and members of St. Luke's Guild comprise a large number of members of the profession, metropolitan and provincial. The annual service in St. Paul's Cathedral on or near St. Luke's Day (Oct. 18th) has become a hardy annual and a very successful one, the service being well rendered and the sermons, by special preachers wisely selected, excellent. But St. Paul's Cathedral is, after all, but a small part of the metropolis and London is a small part of the United Kingdom. Our London *confrères* number, according to the Medical Directory, 6211, those practising in the English provinces, Wales, Scotland, and Ireland, nearly treble this number, being in all 18,404. Many years ago, when Hospital Sunday was limited to Birmingham, it was suggested in THE LANCET that a Sunday set apart for the benefit of the medical charities throughout the length and breadth of the United Kingdom would have a very beneficial effect. The suggestion, however, has been found to be impracticable, local circumstances as to season and clerical and lay coöperation being so variable. These, however, do not apply to a more general recognition and observance of the feast of the patron saint of the medical profession, St. LUKE the Evangelist and Physician, described by St. PAUL as "the beloved physician." The date of the festival is opportune, being little more than a fortnight after the commencement of the medical year in England and the opening of the medical schools. Professors, lecturers, and students are gathered together, medical practitioners in general have returned home from the holidays, and St. LUKE'S Day comes to remind us of our duty as exemplified in the motto of King's College. The late Sir WILLIAM FERGUSSON seized upon this conjunction in his address when President of the British Medical Association at the annual meeting in London in 1873. "We have begun our work this morning holily under the Dome of St. Paul's," he happily observed, "let us conduct it wisely, and thus fulfil the well chosen motto for King's College, within whose walls we are now met, '*Sancte et sapienter*.'" The more general observance of St. Luke's Day would, without any encroachment upon the annual service at St. Paul's, be a most fitting sequel to the opening of the winter medical session at the different medical schools. It would be chimerical to suggest that every member of the medical profession should be a member of St. Luke's Guild—this is impossible. But a very large proportion of the medical practitioners in these kingdoms are members of the Church of England and many of them would gladly avail themselves of the opportunity of attending a special service on St. Luke's Day or, as might be preferable, the Sunday after. We learn that arrangements for this are being made in Liverpool, the second city in England. The Church of St. Luke was completed and consecrated in 1831. Whether its dedication to the patron saint of members of the healing art was accidental or designed cannot be stated, but it is significant that Rodney-street which closely adjoins it has for many years past comprised the residences of physicians, surgeons, and dentists. The church, moreover, is centrally situated and accessible from all parts of the city by electric tramcars. The Venerable Archdeacon MADDEN, the vicar of St. Luke's, is making the necessary arrangements for the holding of the service on the afternoon of Sunday, Oct. 20th. The sermon will be preached by the Right Rev. Dr. CHAVASSE, Lord Bishop of the diocese, and the occasion is being looked forward to in Liverpool with much interest.

Annotations.

"Ne quid nimis."

THE FACTORY BILL AND THE SANITATION OF POST-OFFICES.

AN amendment affecting the interests of a large body of medical men has been proposed to the Factory and Workshops Act Amendment Bill (1 Edward VII.), and we understand that Sir Walter Foster, M.P., has promised to give it his support. Its purport is to add to the text of Section 45 the following words:—

> "And also all Government offices and workshops or other premises used by the Crown or by any department of His Majesty's Government and whether such Government offices, workshops, or premises belong to the Crown or are only occupied by the department for the time being using the same."

This implies that all premises utilised by the postal authorities will be placed under a new and additional sanitary inspector of post-office buildings. Now there are about 600 postal medical officers in the United Kingdom. It is their business to act as sanitary inspectors of these buildings. Special instructions have been issued to each and all to watch over the sanitary conditions of the post-offices in their respective localities. If it could be shown that the postal medical officers had neglected to perform this duty then there might be some reason to appoint an official to overlook their work and to insist on a more strict observance of the rules. But such is in no wise the case. There is, on the contrary, every reason to believe that the postal medical officers are keenly alive to this most important duty. In another column we publish a letter which shows that in regard to accurate information it is not the local officials but rather the central authority which is at fault. It is a matter of difficulty to get correct information from the central authorities, for the statistics that have been given are unclassified. No one pretends that letter-carriers are especially susceptible to pulmonary tuberculosis. It is the letter-sorters, the clerks, and others who are confined indoors all day who become the victims of this disease to an extent which considerably exceeds the average of the general population; and it is the statistics relating to this particular class of workers which are needed and are not forthcoming. Nevertheless, the figures given, though they include all classes of workers engaged for the postal service, show that the deaths from pulmonary tuberculosis among them exceed considerably the general average. Therefore, we may conclude that there are sanitary defects in the buildings utilised by the postal administration. Now if it could be proved that the postal medical officers had taken no notice of these defects, or had never urged the necessity of improvements, then there would be good grounds for appointing controlling sanitary inspectors. But such is not the case. For instance, at the last annual meeting of the Association of British Postal Medical Officers, held in June, 1900, the following resolution was adopted and copies were sent to the Postmaster-General and to the Right Hon. R. W. Hanbury, M.P.:—

> "Having regard to the observations made by Mr. Hanbury in the House of Commons, in reply to Mr. Weir, on May 18th

Last, it is the opinion of this meeting of postal medical officers that the present position of medical officers is unsatisfactory when dealing with the sanitation of the post-office buildings for which they are held responsible, because sanitary defects, when reported upon by them, in many cases remain unremedied.

It is hereby suggested that it would be advantageous if Her Majesty's Office of Works, after conference with medical officers, were to carry out necessary sanitary recommendations made through the recognised departmental channels."

Here it may be explained that the Association of British Postal Medical Officers extends throughout the United Kingdom and that nearly every medical officer in the employ of the Post Office is a member of this association. Further, one of the objects of the members of this association is voluntarily to study and to consider all means by which they can discover, and all measures by which they can prevent, the spread of disease among the 160,000 employés of the British postal services. The association has, at its own expense, collected much information on this subject and has not lost any opportunity of bringing the facts thus collected to the notice of competent authorities. Under these conditions it is urged that the appointment of an outside sanitary inspector to visit and to examine the post-offices, &c., is an unnecessary expenditure of public funds and that this may occasion a considerable amount of friction. When the recommendations that have already repeatedly been made by the postal medical officers have been taken into account and carried out it will be time enough to move for further inspection should the measures proposed prove inefficacious. To appoint now another and a controlling class of inspectors seems to infer that the inspection as it now exists is inefficient, whereas the inefficiency rests in the fact that the recommendations made have not been carried out. Under such circumstances it is very natural that the postal medical officers should protest against the proposed amendment to the Bill now before Parliament, and we hope that their arguments will receive full consideration.

PSYCHOPATHIC HOSPITALS.

In the eighth annual report of the State Charities Aid Association of New York presented to the State Commission in Lunacy in November last, after referring to two distinct results which have after years of constant effort been attained —viz., economy of asylum administration and adequate provision against overcrowding of patients in institutions—the report deals with a scheme for founding psychopathic hospitals for the acutely insane in the State of New York. The curative treatment of insanity was as yet (said the report) in its infancy. The insane had been regarded for too long a period as persons for whom custodial care only was required. In many of the States of the Union numbers of them were still to be found in gaols and poorhouses. To promote the advancement of knowledge regarding treatment it was necessary to secure the best medical skill that the country afforded. If a hospital for the reception of a limited number of acute cases of insanity (say, 600) could be established at some place readily accessible from New York the association felt assured that it would receive freely the services of the most eminent alienists of New York who would gladly serve as attending and consulting physicians. Into such a hospital would be gathered all cases of supposed insanity and recent cases of certified insanity, and here they would be examined and classified by the attending physicians before being placed in suitable wards. Cases of general paralysis or other marked forms of incurable insanity would be sent to other institutions appropriate to such cases. Cases possibly curable would be kept for a limited period in the reception hospital until it was decided whether they could benefit by further stay and treatment or whether transfer to another institution was desirable. There would be an out-patient department connected with the hospital from which patients could be received into the wards and where students would have an opportunity to familiarise themselves with the diagnosis and treatment of the minor forms of mental alienation and disorder. The practitioner who was often called upon to treat such cases and whose knowledge regarding them was very slight could here acquire useful knowledge and experience. Under the roof of such a psychopathic hospital the already established pathological institute of the New York asylums would naturally find its home. The proposed reception hospitals, of which the first will be erected at Rochester, N.Y., are designed to form part of the existing State hospital system. Controlled by the same board of managers, they will be "in close touch with progressive scientific work wherever found, be that within or beyond the walls of the present buildings." It is finally pointed out that the scheme advocated is not entirely new. For many years such psychopathic hospital have been established in Vienna, Heidelberg, Strassburg, Leipsic, and other cities. That of Giessen, opened in 1896, is the most recent, and is considered to be the best by Dr. Frederick Peterson of New York who visited that and other institutions in 1899. Until overcrowding of patients is relieved there can be no proper classification and without proper classification but little progress can be made towards satisfactory treatment. The time has come when all efforts should be made to secure these ends—viz., the prevention of the preventable insanities and the proper classification and cure of the curable insanities. The provision of psychopathic hospitals was one of the means to such ends.

THE ORGANISATION OF A PURE MILK-SUPPLY.

It is undoubtedly a gain to public health that the supply of milk is being undertaken on a large scale, for the organisation of a large business is calculated to include arrangements for the scientific control of the purity of the milk, involving the employment of a scientific staff. Obviously these arrangements are beyond the capacity of the ordinary cowkeeper or milkman acting alone. The fact is, the production of milk has for too long been carried on in a rule-of-thumb way. Now, however, that it is known that milk is one of the most powerful factors amongst us as a carrier of disease it becomes incumbent upon all milk-producers upon their part to ensure, as far as possible, the supply of milk about which no suspicion can be reasonably entertained We are glad to think that our big dairy supply companies recognise this responsibility and accordingly spare no expense in taking precautions to secure the supply of milk derived from healthy cows. The Aylesbury Dairy Company inform us that they prepare a regular set of printed forms which have to be filled up by the various persons concerned in the production and consignment of milk. Thus on the application of a dairy farmer to be allowed to contract for the supply of milk he must fill up a form relating to the entire circumstances under which he can supply the milk. These circumstances are considered by the company and everything being satisfactory the farmer signs a contract subject to the farm being reported upon favourably by the medical officer of health of the district, and to the water-supply being passed by the company's resident analyst. Then, and not till then, is milk allowed to be sent to the company. These relations once established the farm is visited at least once monthly by the medical officer of health who has a form provided for him to fill up. Again, a form is provided for the veterinary surgeon in which he is to report the condition of every animal, and should the slightest suspicion of tuberculous disease be entertained the tuberculin test is applied and the result is reported. In the event of infectious sickness breaking out on the farm the milk is immediately stopped until a certificate is furnished from the medical officer of health to the effect that the company may continue to receive milk from the farm without danger to their customers. Lastly, in cases of infectious sickness occurring in the house of a customer delivery by the ordinary service is discontinued and all supplies are sent by special messenger. Precautions like these are admirable, and if strictly carried out would soon render the conveyance of disease by milk a thing of the past. We believe that the Aylesbury Dairy Company were amongst the first to establish a milk business on these excellent sanitary lines, and we are glad to know that their example has been followed by other great milk companies in London and the provinces.

THE ARMY MEDICAL SERVICE.

As our readers will see by a reference to our Parliamentary Intelligence column Mr. Brodrick declined at the present stage of affairs and under existing circumstances to make any definite statement about the proposed re-organisation of the medical department beyond saying that various measures are in progress to that end. In reply to a question by Captain Norton, as to whether, in view of the fact that there was at the head of the Army Medical Department at the present time only an Acting Director-General shortly about to retire from the service, the Secretary of State for War would say when a new Director-General would be appointed, Mr. Brodrick said: "No, I can make no statement on the subject," accompanying it with a remark to the effect which we have already stated. It is needless to say that this state of uncertainty has a very injurious effect on the medical service and a deterrent influence on any intending medical candidates. There is no end of speculation and conjecture, but nothing is really known as to what are the intentions of the War Office or what is to be the outcome of the present condition of affairs. After what Mr. Brodrick has said on previous occasions there must, we imagine, be a searching inquiry on the part of the Secretary of State into the causes which have led to that condition, the effect of which has been to empty the Army Medical Service of candidates. The sooner this is undertaken the better for all concerned and the promulgation by Mr. Brodrick of the names of those who constitute the committee is anxiously awaited.

ACUTE DERMATITIS FROM A HAIR-DYE CONTAINING HYDROCHLORATE OF PARAPHENYLENE DIAMINE.

In the *Journal of the American Medical Association* of May 18th Dr. A. D. Mewborn has published an important case of acute dermatitis from the use of a hair-dye which is much used in France and which contains hydrochlorate of paraphenylene diamine. A point of particular interest is that the application of this dye to the scalp may produce lesions on distant parts of the skin or even a general eruption. This fact might easily cause the eruption to be overlooked, particularly as patients are prone to deny the use of a hair-dye. A woman, aged 44 years, had severe dermatitis of the face and a pruriginous papulovesicular eruption on the arms and thighs. The forehead was swollen, red, and shiny, and there were a few small vesicles near the margin of the hair. The eyelids, especially the upper, were puffy and the conjunctivæ were slightly congested. The ears were red and swollen; along their upper borders were numerous small vesicles which were filled with straw-coloured fluid and which in places had formed granular crusts. The nose and cheeks were slightly swollen. On the forearms and anterior and inner sides of the thighs were numerous small, mostly perifollicular, papules and a few small vesicles. The patient said that she had had at intervals during the past seven years a somewhat similar eruption which was diagnosed as eczema. The greater intensity of the eruption along the border of the hair and on the upper part of the ears suggested examination of the hair, which showed signs of having been dyed in the temporal and frontal regions. The patient admitted that she had been using a French hair-dye for three weeks. A day or two after commencing its use she felt a prickling sensation in the eyes which was followed by intense inflammation of the face. This dermatitis produced by hair-dye is well known at the Hôpital Saint Louis, Paris. Its zone-like distribution in the upper third of the face, the swollen eyelids, and the vesicles on the margins of the ears are characteristic. Fournier sometimes astonishes a patient by saying: "Madame, you dye your hair; you use a dye composed of two liquids; you apply the dark liquid first and then the clear liquid." Such is the method of applying hydrochlorate of paraphenylene diamine. The first solution is an aqueous or alcoholic solution of the substance; it is applied to the hair on a brush or sponge. The second solution is oxygenated water and is applied a few seconds later on another brush or sponge. The effect is almost instantaneous. Quinone ($C_6H_4O_2$), a substance which gives off irritating fumes, is produced. The hair has at first a violet tint. This becomes darker under the use of the oxygenated water, and tints varying from auburn to jet black may be obtained. The eruption is almost always found on the border of the hair or on the upper lip in those who dye the moustache. The forehead, neck, ears, entire face, shoulders, arms, and even the whole body may be affected. The eruption may appear after the first application or not until the dye has been used for several months. Some subjects have no eruption but complain of prickling in the eyes for days after its use. Intense itching is another characteristic; it may be most marked in the scalp. The eruption consists of erythematous, urticarial, papular, and vesicular lesions. Its involution is slow; the skin remains rough, œdematous, and desquamating for weeks. Brocq has described a grave erysipelatoid form of eruption with fever and adenitis. He saw a young woman who had desquamation of the whole body with great depression and fever. He recommends that in view of the increasing number and severity of the cases a law should be enacted that this dye must be labeled, "Dangerous to persons who have had eczema or who have irritable skins." G. Tissot[1] has arrived at the conclusion that all hair-dyes are dangerous and may produce inflammatory or toxic symptoms, and that their sale should be regulated. Paraphenylene diamine he considers to be the most dangerous. As to the treatment, sedative applications should be used; in the grave forms the hair should be removed, as the dye which remains in it continues to act as an irritant. Of the production of lesions on the body generally several explanations may be given—the transference of the irritant by the hands, the absorption of the drug into the blood, and a nervous influence.

THE HOUSING OF THE WORKING CLASSES.

Salford, like so many other places, feels the difficulty of providing dwellings for working people. The corporation obtained a provisional order some years ago for the demolition of some insanitary property and paid £4 13s. 6d. per square yard for the land. One condition of the order was that provision should be made for the rehousing of the people as soon as possible. The chairman of the Health

---

[1] Thèse de Paris, 1898.

Committee said that if they built four-roomed cottages on the land they would cost between £400 and £600 for land alone, which would mean "a terrible loss to the borough," and if they built four-storeyed tenements there would be a very costly chief rent on each, and he thought that they should try to obtain the sanction of the Local Government Board for leave to sell the land for other purposes. It was objected that in this case over 500 houses had been pulled down and only 61 built to replace them, but in the end the motion was carried that the Local Government Board should be asked to relieve them from the obligation to build on the site of the demolished houses. It is becoming more and more evident that the costly land in large towns cannot be used for workmen's cottages, nor is it desirable on the score of public health that an overcrowded insanitary area should be again overcrowded, the only difference being that in the latter case the tenements are new. Cheap and convenient modes of transit to an outer zone may turn out to be the best solution of the difficulty.

THE NEW CORONER FOR THE CITY OF LONDON.

ON Thursday, June 20th, a meeting of the Court of Common Council was held to elect a coroner in the room of Mr. S. F. Langham who has retired. Out of 18 candidates three had been selected, all of whom were medical men and, in addition, barristers. Their names were: Dr. Major Greenwood; Dr. H. R. Oswald, deputy coroner for the western division of London; and Dr. F. J. Waldo, medical officer of health of St. George-the-Martyr, Southwark, and also to the honourable societies of the Inner and Middle Temples. Dr. Greenwood received 23 votes, Dr. Oswald 52, and Dr. Waldo 96. The Lord Mayor therefore declared Dr. Waldo to be elected coroner. Our views upon the desirability of a coroner being a medical man need no recapitulation here, but we are glad to see that all three selected candidates were medical men. We offer our sympathy to the unsuccessful candidates and our congratulations to Dr. Waldo. He has done such good work in his capacity of medical officer of health of the parish of St. George-the-Martyr that we feel sure that the City has secured an officer in whose hands the honour both of the ancient City and of the ancient office will be absolutely safe.

THE INCREASING PREVALENCE OF CANCER IN THE UNITED STATES.

DR. IRVING PHILLIPS LYON, pathologist to the University of Buffalo, contributes an interesting and somewhat exhaustive study to the June number of the *American Journal of the Medical Sciences* dealing with the increasing prevalence of cancer in the United States, and particularly in the town of Buffalo. A paper by Dr. G. B. Massey on the former subject has been referred to in these columns already.[1] The study of the cancer distribution in Buffalo for the period 1880 to 1899 leads Dr. Lyon to favour the parasitic origin of cancer and to regard it as associated with certain localities, races, and modes of life. Next to direct histological and bacteriological investigation a promising field of research lies, says Dr. Lyon, in the statistical study of the disease in relation to race, social conditions, and natural environment. On a large-scale map of Buffalo all cases of deaths from cancer (2005 in all) were marked out by coloured dots. It quickly appeared that while certain parts of the town showed a scarcity other parts showed a concentration of such "dots" of mortality. "A remarkable concentration is shown in the wards inhabited largely by foreigners, and particularly by Germans." Comparing these facts with the density of the population in order to avoid fallacy, it appeared that nearly every ward in the region showing a concentration of deaths represented "a real and not merely an apparent concentration of cancer." The figures for the period of 19 years (1880 to 1899) showed that German wards with a mean population of 104,753 had 888 cases of death from cancer, while those inhabited largely by native born Americans with a population of 109,527 had 450 cases. The "German" wards include Poles, as the latter came from German Poland and it was found impossible to separate the two races. On the other hand, the Italian quarters, though densely populated, showed a low ratio of cancer mortality. The highest cancer-ratio prevailed among the Irish population—viz., 6 40 times that of the native Americans; then came Germans and Poles, whose ratio was 4 81, while among the Italians it was the lowest of all foreigners—viz., 1 93. In the native-born Americans the male cases of cancer were to the female cases as 50 or 60 to 100. Among the German inhabitants, however, the sexes were affected in nearly equal proportions—viz., 93 males to 100 females, and this applied not only to Buffalo but to the whole of the United States. The Germans and Poles also stood out in contrast with the native-born population, and probably also in contrast with other foreigners, in showing a remarkably high rate of death from cancer of the stomach and liver—viz., 43 8 per cent. of all cancer cases, as against 21 per cent. for the natives. Conversely, a low rate of cancer of the uterus and breast prevailed among German women—viz., 34 4 per cent., as against 61 6 per cent. for females born in the United States. "The lower rate of cancer of the uterus and breast in German than in American women seems," says Dr. Lyon, "to be a weighty argument against the embryonic theory [of cancer], as it is well known that the birth-rate and habit of nursing at the breast are greater among the Germans than the native-born, and therefore, if the embryonic theory were correct, cancer ought to be more frequent in these organs in Germans, because of their relatively greater use and exhaustion. The reverse is shown to be the fact." From a consideration of habits, food, and social environment Dr. Lyon favours the view of infection, mainly from bad food, as a favouring cause of cancer, as upheld by the observations of Behla.[2]

THE DEGRADATION OF THE POST OFFICE.

WE should like to ask His Majesty's Postmaster-General whether something cannot be done to stop the flood of objectionable circulars which are daily and hourly distributed to His Majesty's faithful subjects by means of the department over which he presides. There are the delectable circulars of Mr. Charles Carrington, the swindling notices sent out by Tanqueray, the allurements of money-lenders, and the filthy little books sent out by the blackguard who calls himself Dr. Bell—to say nothing of numerous others. These, however, are sent in closed envelopes and so they may possibly not be recognisable. But there can be no excuse for the distribution of circulars advertising the virtues of various proprietary medicines which mostly emanate from America. Only recently a correspondent sent us a post-card which had been dropped into his letter-box, on which was inscribed a puff of a preparation said to be an absolute cure for painful menstruation, and now several correspondents have forwarded to us the wrappers of circulars dealing with certain pathological conditions and drugs for the same, the said circulars being emblazoned in large letters, "Constipation Number." This sort of thing should be stopped and the Postmaster-General could easily do it if he liked. It is ridiculous to say that officials have not time to investigate. They have time to examine letters and to surcharge them for trivial breaches of the regulations. Only the other day we saw an instance in which a quantity of cards had been sent out. They were all printed with the usual notification of an "At Home," but the date had been filled in in ink. These cards were sent in an open envelope with a halfpenny stamp and had been in many instances surcharged as being of "the nature of a letter." Now, if the Post-office authorities have time to do this sort of thing they could easily detain circulars of the sort to which we have referred. And they will have to do so.

---

[1] THE LANCET, March 10th, 1900, p. 717

[2] Zeitschrift für Hygiene und Infektionskrankheiten, 1900.

THE LONDON HOSPITAL LODGE OF FREEMASONS.

We are glad to be able to announce another recruit to the ranks of Medical Freemasonry, a warrant having been granted by the M.W. Grand Master of the United Grand Lodge of England for the foundation of the London Hospital Lodge. The date of consecration is fixed for Oct. 2nd, at the Hotel Cecil. We believe that the officers named in the warrant are A. E. Sansom, M.D. Lond., F.R.C.P. Lond., as Worshipful Master, and F. S. Eve, F.R.C.S. Eng., and F. J. Smith, M.D. Oxon., F.R.C.P. Lond., as Senior and Junior Wardens respectively. The London Hospital is the sixth metropolitan hospital to attach to itself a Masonic lodge. Freemasons connected with the London Hospital will find further information in our advertising columns.

ORGANISED RESCUE WORK IN COLLIERIES.

A most praiseworthy proposal is receiving, we are glad to learn, very serious consideration by colliery owners. It is the establishment of practical rescue stations in colliery districts. It seems remarkable that such an admirable suggestion has not before been acted upon. We have organisations for the rescue of life at sea, at bathing stations, at rivers, or in the event of fire, but no such organisation has apparently been seriously attempted in colliery districts where too often ghastly losses of life take place. We are sure that if colliery owners could see the benefits to be derived from a local centre from which a body of men could be drawn in case of accident quickly to restore ventilation and afford relief in other matters in connexion with a colliery explosion they would not hesitate to unite in sections and to establish stations throughout the whole of the colliery districts. Dr. J. S. Haldane has clearly shown in his able investigation undertaken for the Home Office that a good deal more might be done towards saving the lives of those struck down by that most poisonous product of explosions in collieries—carbon monoxide. Taking the average of a number of explosions he computed that some 77 per cent. of the men whose lives had been lost might have escaped but for the deadly nature of the after-damp. Undoubtedly, if oxygen could be quickly brought into the mine many lives would be saved, while the rescuing party could, of course, be provided with a means of access and a means also of supporting their own lives during their work of exploration and rescue. Steel cylinders containing compressed oxygen have been suggested for the purpose, and the most recent form of apparatus for breathing in a noxious atmosphere by means of compressed oxygen is the pneumatophore. But, as is pointed out by Mr. M. A. Habershon in a valuable and instructive paper read before the Institution of Mining Engineers, although a number of colliery owners have provided themselves with apparatus comprising one or two pneumatophores it is to be feared that their value in an emergency will be considerably less than it should be because men are not being trained to use them and the apparatus is likely to become only a trap. Again, in order that the pneumatophore may be of real use in any actual work of rescue or exploration it is essential, as Mr. Habershon points out, that there must be at hand without any serious lapse of time, not only a number of these appliances, all of which must be in proper working order, but also an adequate supply of compressed oxygen cylinders, of bottles of caustic soda, and, what is more important still, a number of men experienced in the use of the apparatus. The delay consequent on having to telegraph for, and to await the arrival of, a supply of oxygen would probably render any proposed use of pneumatophores by a rescue party too late to be of any service in saving life and certainly too late for the work of exploration which is generally of immediate importance. A few trained men with pneumatophores and electric lights and a proper reserve supply of oxygen would be able to penetrate any atmosphere, however noxious, and if they could get into the pit during the first few hours after an explosion might obtain information which would be invaluable to those in charge and would facilitate the work of reaching any men who might be shut off from access to the shafts. Of course assistance at the same time could be readily given to any men met with in proximity to the pit bottom. As regards the constitution of rescue corps it is intended at the Normanton collieries to select a number of deputies of workmen from each colliery or pit in the group, only strong, healthy, resolute, and intelligent men who are fit for such work being chosen. Preference will be given to those who are holders of first aid certificates. These men will be required to attend practices or drills with the apparatus at the station until they become sufficiently experienced and obtain the necessary dexterity in the use and handling of the apparatus. A list of the names and addresses of efficient members of the corps will be posted up at the station and will be supplied to each colliery. It is further intended that a sufficient number of the men employed by each of the subscribing companies shall be trained so that eventually each colliery will have a rescue party composed of its own men. We cannot conceive an organisation with a nobler aim than this, and everyone will most heartily wish it God-speed.

DEATH UNDER CHLOROFORM WITH UNUSUAL PHENOMENA.

A somewhat unusual form of circulatory failure following the inhalation of chloroform is reported to us from the Royal Berkshire Hospital. The patient, an anæmic boy, aged eight years, suffering from tuberculous cervical glands, was given chloroform by an accredited officer of the institution with the view of an operation being performed for the removal of the diseased glands. A drop-bottle was employed, the chloroform being dropped upon lint. The quantity used is not known. The patient was nervous and he cried during the administration. At first he dozed off but was aroused and finally was narcotised, the breathing being regular and the pupils contracted. The operation was then commenced. After the skin incision was made and when traction was exerted upon the layer of cervical fascia surrounding the glands the pupils became widely dilated and the respiration grew shallow, although regular and slow, while the pulse was scarcely perceptible. The operation was at once stopped and strychnine was injected, a slight improvement in the pulse taking place. As this was not maintained ether was injected, artificial respiration was commenced, and hot-water bottles were applied, and the boy was removed to the ward. The breathing again improved, a more natural colour appeared, and the pulse grew perceptible. The pupils were now contracted to about normal, the left one (i.e., on the side of the operation) being slightly the smaller. Failure of respiration and circulation again occurred and inflation of the lungs with stimulation by faradaism did not prove successful, the lad dying in about 35 minutes from the first onset of dangerous symptoms. The phenomena detailed certainly appear to have been due to failure of circulation, probably from vaso-motor paresis. It seems likely that during the crying more chloroform was allowed to enter the lungs than the feeble condition of the patient could withstand. As is well known, anæmic subjects are very readily overdosed. The medullary centres, poorly nourished, become narcotised with quantities of the anæsthetic relatively small, while the consequent feebleness of respiration and failure of the vaso-motor safeguard at once lead to accumulation of the poison and deportation of blood from the arterial to the venous system. We do not gather that inversion on the first onset of faintness was put into practice; if it were not it is to be regretted, as we have no doubt that the first remedial measures to be adopted in such cases are inversion and either pulmonary perflation, by preference with oxygen, or, failing this, by artificial respiration. It is very exceptional to find a patient who survives the first few minutes after the dangerous symptoms have arisen is lost eventually, and such an occurrence could only take place as the result of extreme asthenia or very prolonged and excessive narcotisation. It is not unusual in the later stages of the operation for removing tuberculous glands, when traction upon the deeper structures involves interference with the vagus, to find that symptoms arise similar to those reported in this case, although, happily, they are generally relieved by prompt measures.

SAFETY IN NUMBERS?

FOR those people who find pleasure in the manipulation of statistics there is a rich harvest of delight in the recently issued preliminary report and tables resulting from the census investigations of April 1st, 1901. Even the abstract from the report in the *Times* of June 15th is full of figurative plums for that large class of persons who find interest in such matters. It is curious how many men there are to whom bare figures are a source of interest and gratification; men whose chief pleasure in life is the examination of tables, the comparison of annual statistics, and the detection of minor mathematical flaws. To all such the census returns are of course a *bonne bouche*, the taste of which will linger pleasantly for weeks and months of the present year. Even the less statistical, however, can find in these figures something of interest and to the medical man certain facts brought out are not unimportant. He ponders over the astounding increase of town as opposed to country population and on the excess, over 1,000,000, of females over males in Great Britain. Along with the first he places, perhaps, the predominating part that nervous diseases of all kinds tend to acquire in modern nosology and the second makes him introspective of the position of the medical woman. The remedy for such developments of particular kinds of population is, of course, not in the province of medicine. We are engaged in what sometimes appears to be the paradoxical pursuit of preserving human beings, whether fit or unfit, whether their "survival" is really for the benefit of the nation which owns them or the reverse. Healthy or of deficient physical qualities, however, they all play an equal part in the census returns and the most diseased individual may console himself with the reflection that on paper he is as fine an item as Mr. Sandow himself. What is to be done for the female plethora? Physical science offers no resource, for in spite of the sanguine recommendations of certain continental physicians we believe medicine is not yet in a position to offer even the most patriotic of mothers a son when the, at present, inconvertible course of nature has determined on a daughter. The production of women rather than of men is not to be limited by any means at our disposal; it remains for the political forces of society to dispose of them to the greatest advantage for the nation. English women, happily, have never been wanting in the courage and enterprise of their race, and doubtless in our growing colonies will be found the natural home of many females whom it would be ungracious to characterise as "superfluous" in Great Britain.

BRITISH CONGRESS ON TUBERCULOSIS.

WE hear that the arrangements for the above congress are not only in a very forward state in this country but that active measures are being taken abroad to secure a large number of continental visitors. In a previous issue we have given the names of the German committee presided over by His Serene Highness the Duke of Ratibor. In Paris a French committee has been formed under the presidency of Professor Brouardel, with Dr. Thoinot as honorary secretary, assisted by Dr. Morny, Dr. Sersiron, and Dr. Dumarest. This committee has sent out a special circular to members of the profession and others who are particularly interested in the question of tuberculosis. Amongst those who have already inscribed their names are the Prince d'Arenberg, Professor Brouardel, Professor Lannelongue, Professor Proust, and Professor Nocard, and Dr. Martin, Dr. Léon-Petit, Dr. Sabran, Dr. Letulle, and Dr. Hérard. Professor Julian Colleja, President of the next International Congress in Madrid, one of the Vice-Presidents from Spain, is also exerting himself to promote the interests of the cause. Professor von Schrötter, Professor Weichselbaum, and others have likewise joined from Austria; amongst the representatives from America will be Professor Osler and Professor Janeway, while numerous acceptances have been received from Hungary, Italy, Belgium, Norway and Sweden, Holland, Switzerland, Portugal, and Egypt.

FRENCH GOVERNMENT COMPENSATION FOR ACCIDENTS.

AT the International Congress of Miners which met recently in London the British delegates complained that the law on compensation for accident could only be applied if the accident was of so serious a nature that the victim was invalided for more than 15 days. The French delegates, on their side, complained that the French law only allowed compensation on the fifth day, and though this was a great improvement on the English law, still they were not satisfied. The French Government apparently shares this dissatisfaction, and it is in this respect ahead of the French legislature. On Feb. 1st, 1901, an official circular was issued in regard to the compensation to be paid to workmen in Government employment when they were injured in the course of their work. This circular points out that, according to the law of April 9th, 1898, a workman temporarily incapacitated through an accident was entitled to receive half the wage he was earning at the time when the accident occurred if on the fifth day he was not able to return to work. But before this law was enacted Article 20 of the decree of June 1st, 1875, had stipulated that workmen in Government employ who fell ill or met with an accident and were confined to their beds were from the first day to receive their full wages for, however, not more than three months. If the illness or accident was so serious that the patient did not recover in the course of three months then a special arrangement would be made. The circular of Feb. 1st, 1901, explains that if the Government were to content itself with the application of the Law of 1898 the position of the workers in their employ would be much less favourable than formerly. Therefore the circular calls attention to the Ministerial decree of Jan. 23rd, 1901, which states that an accident causing death or permanent, complete, or partial incapacity from work shall be dealt with according to the law of April 9th, 1898. But the law shall only come into operation after the tribunals have recognised the permanent character of the incapacity resulting from the accident. Till such time and even if it extends beyond the three months' limit established by the decree of 1875, the workman shall receive from the State his full wages. If, however, the injured workman is not nursed in his own home but is treated and maintained in a hospital he will still receive half his wages, so that his family shall not be in distress. In a word, the principle is full wages or the equivalent in hospital treatment till the workman is cured and returns to his work, or, being recognised as permanently injured, is pensioned off. Thus the Government seeks to set an example as a model employer. Its generosity goes far beyond the stipulations of the law.

DEATHS FROM ANTHRAX.

THE comparative rarity, happily, of deaths from anthrax renders the two fatal cases that recently occurred in Bradford the more noticeable. Anthrax, or wool-sorters' disease, is pre-eminently one in which thorough precautions taken for and by those whose work exposes them to contamination will go far towards ensuring perfect safety. Absolute safety is of course not merely a matter of providing the means for obtaining it. A large part depends in this, and in all similar circumstances, upon the care and intelligence with which a workman uses the weapons of defence that are placed at his disposal. Unfortunately the familiarity of contempt is rapidly bred among workmen, and employers often suffer, not because they have not as far as possible made every provision for the safety of their men, but because the men have grown careless in using such provision. In the first of the two cases to which we are referring some such state of affairs may be responsible for the death. At any rate, it appeared in the evidence at the coroner's inquest that all the factory regulations had been complied with, that wool was sorted only over a sorting board, and that employés were forbidden to take food in the carding-room. In spite of these precautions a "card-feeder" had developed a malignant pustule on the back, from which she died in a few days. The second case was that of a man who, it seemed fairly obvious, had contracted the disease through sorting dangerous wools in a cellar, without any precautions being taken. He contracted anthrax of the face which rapidly proved fatal. Evidence showed that the wool-combers' business where he was employed was old-fashioned and that modern methods were only being gradually introduced. A verdict of manslaughter was returned against the manager.

THE CERTIFYING OF LUNATICS.

IN consequence of several recent scandals connected with certain Poor-law unions in which the relieving officers have received payments from the district medical officers or from proprietors of private asylums and licensed houses in connexion with the certifying of lunatics and their admission into such houses, a circular letter has been addressed from the Home Office to clerks to county and borough justices, stipendiary magistrates, and the metropolitan magistrates, drawing attention to the following points: 1. Section 16 of the Lunacy Act, 1890, directs that in the case of a pauper lunatic who is brought before a justice the latter "shall call in a medical practitioner and shall examine the alleged lunatic," *and it is only when the practitioner has signed* a medical certificate with regard to the lunatic that the order for his removal can be made. In some cases relieving officers have usurped the duty of selecting the medical practitioner, a proceeding which not only violates the law but has lent itself to grave abuse. 2 A justice should not sign the reception order until the medical certificate has been signed and laid before him. In some cases a laxity has been noted in this respect. 3. The name of the institution to which the lunatic is to be removed should be filled in by the magistrate or justice and not left blank. The latter course has permitted relieving officers to fill in the blank with the name of any institution to which they had inducements to take the patient and it has been also advised by the law officers of the Crown that if the blank is not duly filled up the order cannot be legally acted on. 4. Finally, according to Section 27, Sub-section 2, of the Act the lunatic "shall not be sent elsewhere than to an asylum of the county or borough in which the place from which he is sent is situate," except owing to absence of accommodation or special circumstances. Magistrates should be specially insistent on the observation of this rule as far as practicable. These instructions are both necessary and opportune just now.

ANEURYSM OF MYCOTIC-EMBOLIC ORIGIN.

DR. O. LING of Dorpat contributes to Part 5, vol. ix., of the *Russky Archiv* (edited by Professor Podwissotzky of Kieff) an article on Aneurysm of Mycotic-embolic Origin. It is a paper of considerable interest, both from a practical and theoretical point of view, inasmuch as it deals with a comparatively rare affection, the pathology of which has as yet received but little attention. Up to the present time not more than some ten cases—exclusive of the one which Dr. Ling reports—have been described in which the real nature of the malady was recognised during life. Dr. Ling begins by analysing the literature of the subject, paying particular attention to Eppinger's observations and conclusions as laid down in an exhaustive monograph by the latter observer. He then proceeds to relate the case of his patient. A lad, 19 years of age, was admitted to the hospital suffering from a complex of symptoms characteristic of so-called "crypto-genetic septopyæmia and septic endocarditis." It appears that on the seventh day of his illness he was suddenly awakened in the morning by intense pain located in the bend of the left elbow, though on examination nothing abnormal could be detected. Soon, however, one important symptom made its appearance—namely, the absence of pulsation in the left ulnar artery and, in addition, it was noted that the pulsations of the left radial artery were of a greater number and more intense in character than those of the right one. In the further course of the disease a comparatively large pulsating tumour, which ultimately became distinctly obvious, was discovered at the very point where the original pains were situated and there were also present a slight but marked swelling of the surrounding parts and discolouration of the skin. The formation of the aneurysm was attributed to a septic embolus which originated in one of the diseased heart valves and located itself at the point of division of the brachial artery into the radial and ulnar branches, thus causing a permanent obstruction to the circulation in the latter and subsequently leading both to the destruction of the arterial coats and the formation of the pseudo-aneurysm. The presence of continued fever throughout the course of the disease is recorded by Dr. Ling as one of the most striking features of the affection. The fever was irregular, presenting at one time the remittent and at another the intermittent type. There was hæmaturia. The condition of the patient gradually became worse, general cachexia and complete collapse soon ensued, and he died seven weeks after admission to the hospital. Dr. Ling gives a minute description of the pathological changes which were found on post-mortem examination. There was an ulcerative endocarditis, partly of an acute character and mainly confined to the mitral and aortic valves; the spleen presented numerous infarcts which were well defined and differed from each other as regards size and appearance; and both kidneys were found to be in an acute hæmorrhagic state. The coats of the thoracic and abdominal aorta were found unaltered. As regards the nature of the tumour of the left elbow it was found that its coverings consisted of thick membranous layers of newly-formed tissue, thus producing a cavity which was filled with both coagulated blood and puriform matter. The aneurysm contained numerous micro-organisms, practically identical in every respect with those cultivated by Dr. Ling from the mitral and aortic valves of the patient.

PLAGUE IN CAPE COLONY.

A TELEGRAM received at the Colonial Office on June 20th, gives the following statistics of plague at Cape Town for the week ending June 15th. Fresh cases: Europeans, 3; coloured persons, 4; Malays, Indians, Chinese, and natives, 0; total, 7. Corpses found: Europeans, 1; coloured persons, 5; Malays, 1; Indians, Chinese, and natives, 0; total, 7. Deaths (including corpses found): Europeans, 2; coloured persons, 7; Malays, 3; Indians and Chinese, 0; natives, 1; total, 13. The total cases up to June 15th have been: Europeans, 186; coloured persons, 327; Malays, 54; Indians, 11; Chinese, 2; natives, 145; total, 725. The total deaths have been: Europeans, 52; coloured persons, 170; Malays, 39; Indians, 9; Chinese, 0; natives, 64, total, 334. One case, that of a private in the 1st Battalion Welsh Regiment, has occurred among persons under naval and military control. The total cases to June 15th amount to 50, including 10 deaths. At Port Elizabeth for the week ending June 15th the cases of plague have been as follows: Europeans, 1; Chinese, 1; natives, 2; total, 4 One native died. The cases to June 15th have been: Europeans, 2; coloured persons, 2; Chinese, 1; natives, 6; total 11. Total deaths: Europeans, 1; coloured persons, 2; natives, 3; total, 6 The total cases at Mafeking to June 15th have been: Europeans, 2—both privates in 1st Battalion Loyal North Lancashire Regiment. The area of infection remains unchanged.

THE DANGERS OF CHEMICALS IN TRANSIT.

WE have more than once referred to the increased traffic in chemicals and to the new dangers which thereby arise in connexion with those concerned with the transit of such substances. Liquid gases are now a commercial commodity, and to such an extent that special legislation was needed to provide for their safe transportation. Even the cartage of these things through the streets is not without risk to the public. On board ship all kinds of chemicals are carried—metallic sodium, caustic soda, sulphuric anhydride, sulphurous acid, liquid carbolic acid, naphtha, nitro compounds, chlorates, and many other substances with ugly potentialities. In bad weather packages may get adrift and be smashed and the contents may not only damage the ship but be a menace to crew and passengers. It has happened in this way that different chemicals have got mixed, with the result that violent explosions have ensued or poisonous fumes have been produced and the crew overpowered. It is evident, therefore, that the greatest care should be taken as to how such goods are stowed, having regard to the possibility of bad weather and the rolling of the ship, in order that the danger and risk to life may be minimised. The crew, as a rule, are ignorant of the destructive or corrosive nature of the chemical cargo which the ship may be carrying. Such would appear to have been the case in an accident reported recently, although it must be admitted that the circumstances in this case are exceptional and the fatalities which happened are involved in some mystery. A ship sailed from Liverpool to Rotterdam with, amongst other things, a cargo of 48 barrels of crude carbolic acid in hard-wood oil-casks. At sea in rough weather the barrels broke adrift and got smashed, the acid contents being nearly two feet deep in the compartment. Three of the crew went to secure the casks but were badly burned, overcome by the acid, and died almost immediately. At the inquest the deaths of the three men were attributed to the fumes of the acid, but, as Dr. Dupré pointed out in the Board of Trade investigation, death could not have resulted from fumes, because at an ordinary temperature the acid would not give off any appreciable vapour at all. Death was probably partly the result of shock resulting from acute burns and partly due to the absorption of the acid through the skin. The suddenness of the deaths is remarkable. Cases, however, have been recorded in which the external application of carbolic acid resulted in sudden death as though prussic acid had been taken. Instances are, of course, known in which carbolic acid poisoning followed the external application of the acid. It has happened, for example, when the acid has been used prior to a surgical operation. It seems to us that special regulations are needed which will offer greater protection to those who may have to deal with cargoes of chemical substances. The usual ship gang do not understand the dangerous nature of some of the goods which they handle and we consider that when special cargoes of this kind are taken on board warnings should be issued to the crew that they must be on their guard in the event of an accident occurring in the way just described.

STALE v. NEW BREAD.

NEW bread is well known to be less digestible than stale bread, although it need not be so. There can be no question, however, of the vastly superior flavour of the former, and hence the preference of many people for hot rolls for breakfast. So far the palate would appear not to be a safe guide to digestion. Hot rolls, however, when masticated properly should not offer any difficulty to the digestive organs. A slice of stale bread on being broken with the teeth resolves into more or less hard gritty particles which unless they were softened by the saliva would be almost impossible to swallow. The particles would irritate the throat and the gullet. The fact is, therefore, that man is compelled thoroughly to masticate and to impregnate stale bread with saliva before he swallows it. This act, of course, partially digests the bread and thus makes it in a fit state for digestion and absorption farther on in the alimentary tract. This is why stale bread appears to be more digestible than new bread. New bread, on the contrary, is soft, doughy, or plastic, and there appears to be no necessity to soften it with saliva, hence it escapes the preliminary digestive action of the ptyalin of the saliva. New bread, in other words, is in reality "bolted," and "bolting" accounts for many of the ills arising from dyspepsia. Accordingly, hot rolls should be enjoyed for breakfast without any fear of dyspepsia so long as the bread is good and so long as pains are taken to masticate it thoroughly. When a dog is given a piece of meat it will be noticed that he "bolts" it. There is not much reason why it should stay in the mouth, for the mouth, beyond reducing it by the aid of the teeth to a convenient mass, cannot deal with its digestion; but if the dog be given a piece of bread, supposing he eats it at all he will keep it in his mouth for some time and will almost labour over it before swallowing it. The dog thus teaches a very important physiological lesson. It is a curious fact that stale bread is not more dry than new bread, for on submitting stale bread for a short time to a high temperature it regains its condition of newness and becomes soft or plastic and this in spite of the fact that some moisture is of necessity driven off in the operation. It is probable that in new bread there is free water present while in stale bread the water is still there but in a condition of true chemical combination, and it is this combination which compels us thoroughly to moisten and to masticate stale bread before we consign it to the gastric centres. Similarly the indigestibility of the Norfolk dumpling is probably due to the fact that it is of tough doughy consistency and therefore should receive considerable mastication before it is swallowed. It is a sound physiological plan, therefore, to adopt—as it is said the late Mr. Gladstone adopted—the habit of chewing each morsel a great number of times.

THE SYMPTOMS OF TUMOURS OF THE FRONTAL LOBE OF THE BRAIN.

DR. HONIGER records in the *Munchener Medicinische Wochenschrift* of May 7th the symptoms and diagnosis of cerebral tumours affecting the frontal lobe. The tumour may be situated in the region extending from the frontal pole to the anterior or ascending frontal convolution on the convex surface and on the basal surface from the frontal pole to the posterior limit of the roof of the orbit. A diagnosis of frontal tumour may be made when it is accompanied by disturbance of the psychical functions (*Seelenleben*). When lesions of the frontal lobe in the form of atrophy, as in certain idiots, or of diffuse encephalitis or paralytic insanity result there is produced a marked impairment of intelligence. The mental alteration may express itself in the form of loquacity and a tendency to joking combined, and this condition of irrepressible quibbling (*Witzelsucht*) is especially marked when the left frontal lobe is the seat of the tumour. One such case was that of a woman, 50 years of age, one year after she had attained her menopause, and she developed melancholia with hypochondriacal delusions of unworthiness and suicidal desires. There was slight facial paresis on the left side, but there was no appearance of "choked disc" on ophthalmoscopic examination. The above form of loquacity was present. She gradually grew demented and died in a condition of apathy. The occurrence of the above peculiar disposition towards speech was of diagnostic and localising importance, and though but little known is referred to by Bruns in his important work on cerebral tumours. Another trait is an ataxic condition of gait which resembles that of a drunken person. Usually there is not any alteration of reflexes or of sensibility. The abnormal stumbling gait is attributable to a weakness or paresis of the trunk muscles in the lumbo-sacral region and sometimes to a spasmodic contraction of these muscles. A permanent paralysis of these muscles follows as the tumour grows and enlarges, involving the cortex of the superior frontal convolution. In proportion as the tumour approaches the third frontal convolution (Broca's speech-centre) on the left side speech disturbances predominate. Other symptoms develop if the tumour approaches the so-called "motor" area. When the tumour starts in the basal or orbital aspect of the frontal lobe its proximity to the olfactory and optic nerves may give rise to symptoms of disturbance of those nerves. The paralysis of the lumbo-sacral muscles (rump-muscles) has been correlated by Wernicke with the characteristic disturbance of gait, and Munk by experimental ablation of the frontal lobes in both dogs and monkeys has produced analogous results. Hitzig in his earlier experiments had already shown that movements of the rump-muscles were represented in the lateral portion of the gyrus cruciatus in the cat and the dog. A case is given where the diagnosis of frontal tumour was made on the basis of paresis of the rump-muscles associated with sacral pain in a man, aged 54 years. There was the characteristic disturbance of gait, and the symptoms pointed to involvement of the right frontal lobe. Later he developed local headache and tenderness over the site of the tumour, and there were symptoms of pressure on the arm area, producing paresis of the left arm. A few hours before death the temperature rose in the axilla to the extraordinary height of 41·5° C. (106·7° F.). The necropsy revealed an enormous tumour involving nearly the whole of the dorsal half of the frontal lobe, and extending from the frontal pole backwards as far as the fore-edge of the ascending frontal convolution.

MACCLESFIELD GENERAL INFIRMARY.

IN consequence of the resignations from the honorary medical staff of Mr. J. Somerville and Mr. J. B. Hughes, his juniors, Dr. J. L. Rushton has also recently resigned his position among the active medical officers of the Macclesfield General Infirmary. The three oldest members of the staff have thus severed themselves from a position which they have held for many years with credit to themselves and with advantage to the institution. They had been on the staff of the infirmary since it was first opened. If at the monthly meeting of governors at which these resignations were formally announced it seemed right to the chairman to add any expressions of opinion or sentiment upon the withdrawal of these senior medical officers, we should have expected gratitude more than any other feeling to predominate in his remarks. The chairman on this occasion, however, thought fit to expatiate rather on the advantage of securing the services of younger and "more up-to-date" practitioners—a singularly ungraceful way of bidding farewell to gentlemen who had for many years given gratuitously a large part of their time to the welfare of the institution which they were leaving. That the chairman's predominating sentiment was not the feeling uppermost in the minds of the rest of the governors was shown by Mr. Alderman Pickford, who, in proposing that the resignations should be accepted, remarked that they felt they would be conferring an honour upon themselves as well as upon Dr. Rushton if they appointed him on the honorary consulting staff of the institution.

STREET NOISES.

THE flat-racing season is now in full swing and the "runner" is accordingly more of a nuisance than ever. As we have said before, the police decline, as a rule, to interfere except upon the personal complaint of an annoyed brain-worker. This conduct renders the by-law of the London County Council perfectly useless, though in the circular originally issued by Sir Edward Bradford it was implied, if not explicitly stated, that the police could act upon their own initiative. We quoted in a previous number a case in which a constable did act upon his own initiative and where he was backed by the magistrate.[1] But at present the by-law is a dead letter, and we can only urge everyone who is annoyed by "runners"—and that class will include most people—that the best way of obtaining redress is to bombard the member of the County Council for the division in which he resides with letters concerning the nuisance, letters which will ask that he should bring the matter again before the Council. The Council, we hope, will, if worried enough, again call the attention of the police to the by-law and thus the nuisance may be stopped. This should be done in all parts of London, but for ourselves we hope that a commencement will be made with the Strand. If the big business firms, the hotels, the banks, and the newspaper offices all complain there is a fair hope of relief. In the meantime we would point out that even when a citizen does take the trouble to appear at a police-court certain magistrates give him practically no redress. At the City summons police-court Mr. Alfred Moore appeared to complain against a newsboy for shouting. Sir Horatio Davies is reported as having said: "People have to pay very high rents in the City and should be protected against a nuisance of this kind, but the public would be very much inconvenienced by not being able to get their evening papers." Mr. Moore remarked that they could see if they did not hear, whereupon the magistrate said: "No one would know much about them being there if they did not call out." The fatuity of this remark is amazing. There are numbers of newsvendors who do not shout and who yet can sell their papers. The boy was fined 6*d*.!

---

[1] THE LANCET, July 14th, 1900, p. 120.

NOTIFICATION OF PULMONARY TUBERCULOSIS.

EVERY step that helps to impress upon the general public a knowledge of the extent to which pulmonary tuberculosis is an infectious and preventable disease must be a step in the right direction towards diminishing the, at present, terrible mortality from tuberculosis. On these grounds the notification of pulmonary tuberculosis may be regarded as a beneficial innovation. Notification, compulsory or voluntary, has not, however, yet been long enough in vogue even in those parts of America where we believe it was first practised for definite conclusions to be drawn as to its value in diminishing the disorder. Moreover, there are certain difficulties that must be recognised with regard to compulsory notification. The first rural district council to institute voluntary notification of pulmonary tuberculosis—that of Bucklow—has recently issued a notice to the medical men within its region of influence A fee of 2*s*. 6*d*. is to be paid for each voluntary notification, and bacteriological aid to diagnosis is obtainable from Mr. T. W. H. Garstang, the medical officer of health, when desired. We have no doubt that the Bucklow Rural District Council is taking a step likely to be approved by the medical men of the neighbourhood and imitated by district councils elsewhere.

THE introductory address at St. George's Hospital, on Oct. 1st, will this year be delivered by Dr. P. W. Latham, of Cambridge. Mr. J. Warrington Haward will preside over the annual dinner in the evening. The Lord Chief Justice of England has consented to preside at the annual distribution of prizes in October.

THE Committee of Management of the Royal Orthopædic Hospital have been informed through the Earl of Denbigh, the President of the hospital, that Queen Alexandra has graciously acceded to the request made to Her Majesty to become patroness of the charity, in succession to her late Majesty Queen Victoria.

THE summer meeting of the Anatomical Society of Great Britain and Ireland will be held in the Medical Department of the Yorkshire College, Leeds, on Friday, July 5th, from 2 to 5 P.M., and on Saturday, July 6th, from 10 to 12 30 A M

THE twenty-eighth festival dinner of the Royal Medical Benevolent College will be held at the Hotel Cecil on Tuesday, July 9th, at 6 30 for 7 P.M. The chair will be taken by the Right Honourable the Earl of Rosebery, K G.

THE new Pathological Institute of the London Hospital will be opened by Sir Henry Roscoe, D.C.L., F.R S, on Wednesday, July 10th, at 3 P M. The distribution of prizes by Sir Henry Roscoe will take place on the same day.

DR. F. W. HEWITT has been appointed Emeritus Lecturer on Anæsthetics and consulting anæsthetist at the London Hospital on his resignation of the post of instructor in anæsthetics which he has held for 15 years.

HIS MAJESTY THE KING has graciously consented to become patron of the Surgical Aid Society.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on June 20th, Sir WILLIAM MAC CORMAC, Bart, K.C.B., K.C V.O, the President, being in the chair.

The PRESIDENT reported the attendance of the delegates of the College—namely, the President, the Senior Vice-President, and Professor Mayo Robson—at the Ninth Jubilee Celebrations of the University of Glasgow and the presentation by them, on behalf of the Council, of an address of congratulation.

A complaint was received from the Medical Defence Union of the conduct of a Member of the College in associating himself with the publication of two pamphlets by means of which it was thought that the Member advertised. The Council, on the recommendation of the Discipline Committee, decided to request the Member to furnish the Council before their next meeting with any explanation that he might desire to offer.

The following examiners were appointed for the ensuing year:—

BOARD OF EXAMINERS IN ANATOMY AND PHYSIOLOGY FOR THE FELLOWSHIP

Anatomy—James Ernest Lane, Frederick Gymer Parsons, Alfred [illegible] Thompson, Thomas [illegible]

CONJOINT EXAMINING BOARD

First Examination.—Elementary Biology—Frederick Gymer Parsons, Herbert Willoughby Lyle, Peter Chalmers Mitchell, and Walter G Ridewood.

Second Examination—*Anatomy*—William Bruce Clarke, Stanley Boyd, Arthur Robinson, and Arthur Thomson—*Physiology*—Leonard Erskine Hill, George Alfred Buckmaster, and Ernest Henry Starling

Third Examination.—Midwifery—Herbert Ritchie Spencer, William Radford Dakin, William Duncan, and James Henry Targett

Examination in Public Health—*Part I*—Alexander G R. Foulerton. *Part II*—S A. Monckton Copeman

The Council accepted with thanks the offer from Mr. Algernon Tatham to present to the College a silver medal awarded to the late Sir Erasmus Wilson by the Royal Humane Society for saving a young woman from drowning in 1857.

The Council confirmed the following standing rules for the awarding of the Cartwright prize:—

1. The Cartwright prize will be awarded quinquennially and the first award will be for the five years ending Dec. 31st, 1905

2. The prize consists of a medal executed in bronze and an honorarium of £50

3 The subject for the essays to be submitted in competition for the prize is "The Surgical Diseases having their Origin in Abnormal or Diseased Conditions of the Teeth and their Structures, the essay to be illustrated by pathological and microscopical specimens."

4 Candidates for the prize must be persons engaged in the study [illegible]

6. Every essay must have a motto or device and must be accompanied by a sealed paper containing the name and address of the author, and having on the outside a motto or device corresponding with the motto or device on the essay

7 Each essay must be addressed to the Secretary of the Royal College of Surgeons of England and delivered at the College not later than 4 o'clock P M. on Dec. 31st, 1905

8. The manuscript prize essay and every accompanying drawing and preparation will become the property of the Royal College of Surgeons of England.

9 Every unapproved essay which is unclaimed at the expiration of 12 months from the date of its receipt will be returned, with any accompanying drawing and preparation, to the author thereof at the address given in the sealed envelope.

INVALID RAILWAY TRAVEL.

BY E. M. CORNER, F.R.C.S.ENG., B.SC.LOND., M.D.CAMB.,
RESIDENT ASSISTANT SURGEON AT ST. THOMAS'S HOSPITAL.

THE subject of invalid railway travel must often be brought to the mind of practitioners, yet there is no succinct form in which knowledge of the subject can be obtained. Many people are also interested in railway matters but in the course of a busy life have neither time nor opportunity to cull knowledge for themselves. Invalid travel and accommodation is a subject which is of interest to both patients and railway companies as well as to the practitioner and therefore deserves attention from the profession. As in so many other things, luxury is only to be bought, and consequently the comforts of travel can only be enjoyed by those who are able to pay well for them. The time and the amount of such traffic have not yet come when the various companies can charge less than first-class fares; and, again, as yet there is no competition.

The lines of railway which extend along the southern, and especially the south-western, coasts are those which must naturally have the greatest amount of such traffic and they are the lines that cater most for it. Any line which has a terminus in London must be called upon sometimes to convey invalids to it, and the same remark will apply in a lesser degree to all large towns. The great northern railways do some considerable traffic in this way as well as in bringing invalids down to, or near, London in order that they may continue their journey to their destination elsewhere. To allow of invalids suffering the least possible disturbance they can be carried from place to place over several companies' lines and never be moved from the saloon in which they travel. Arrangements will be made for them in advance and the lump sum paid will be divided amongst the various companies at the Railway Clearing House. Hence the only condition that is requisite is that the lines should be of the same gauge, which is standardised at 4 feet 8½ inches throughout all the great lines of the British Isles. This complete system of transference from line to line without any extra trouble or payment on the part of the traveller is an inestimable boon. When travelling by invalid saloon or family saloon the patient will be taken by fast trains, but with the "crack" trains that are timed closely and run fast the companies may object to the extra weight. But as a rule these scruples can be overcome. When travelling by the invalid road car on a truck, it will not be hooked on to the first-class trains. This is not only for the look of the thing, but also because the truck may interrupt the continuity of the break with the carriages behind it and with the engine.

The situation in the train selected for the invalid's carriage is at the middle where oscillation is least. On a few lines, such as the London, Brighton, and South Coast Railway, where the train is split into two portions—the London Bridge and the Victoria—at Croydon, the carriage is apt to be brought the remainder of the journey very close to either end of the train.

The greatest achievement in invalid travel has been accomplished recently by the London and South-Western Railway when they constructed their hospital train for the use of the wounded returning from the war. It consists of five carriages 48 feet long, run on bogies, splendidly constructed and equipped. They represent the acme of comfort, but they are made to carry many and not a single invalid. The Great Western Railway offer the largest and finest invalid saloons with all the most modern improvements. Of lines on which the invalid traffic is less the London and North-Western Railway and the Caledonian Railway stand out distinct in offering to invalids a temporary modification of their splendid family saloons.

The various methods of invalid travel are by the invalid saloon or railway carriage, the modified family carriage or saloon, reserved compartments and seats, and the invalid road carriage, all of which will be considered categorically and the expenses incurred by each method will be stated.

THE INVALID SALOON.

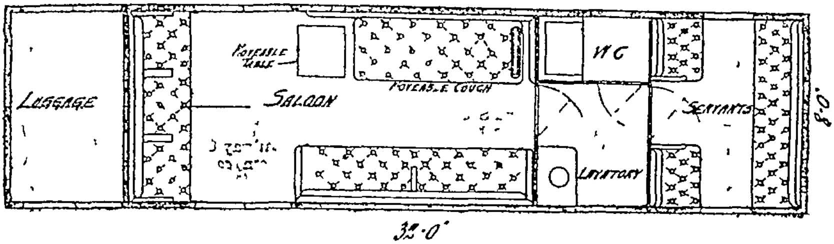
All the great railways build some special coaches, called invalid saloons or railway carriages (Figs. 1 and 1A), which represent their chief effort to meet the requirements of this class of passenger. The saloons are usually divided into four compartments—one for the invalid, one for the attendants, one for the luggage, and one to be used as a lavatory; and these supply all the room and comfort which an invalid needs when travelling. In length the carriages vary from 30 to 34 feet and they run upon six wheels. Only one company has an invalid coach running upon bogies and the long and luxurious carriages of the best trains contain too much room and have too much unnecessary weight to be built for invalid saloons. Hence the shorter and older type of six-wheeled coach is adopted by all the railways, with one exception—the Great Western. The length of the compartment for the patient varies with the length of the carriage, usually from 17 feet to 19 feet and it usually contains a special couch which differs in some points with the various companies and carriages. The couch may be fixed or moveable, slung by special springs from the roof, &c. On some lines hooks are put in the roof so that a special mattress or hammock may be slung—such a carriage must be specially asked for as the generality of the invalid stock has no such requirement. Special straps anchor the mattress to the floor, limiting the oscillation. On certain lines the couch can be lifted and used as a stretcher to convey the invalid in and out of the saloon. When the couch is thus moveable it can be readily replaced by a bed which forms part of the regular furniture of an invalid saloon only upon the Great Central Railway. Many other lines—such as the Midland, the London and North-Western, the Great Western, the Great Southern and Western of Ireland, and others—will supply a bed where it is required. The Midland, the Great Western, and the South-Eastern and Chatham railways have their invalid couches slung by spiral springs from the roof and their movements restrained by leather straps (Figs. 2 and 3). Otherwise this arrangement, if it is required, must be specially asked for.

The doors of the saloon are usually of double width to enable the patient to be carried in or out upon the couch on which he has been brought to the station, so that he can either continue the journey on the same couch or be transferred to the couch in the saloon. By the first of these arrangements the least possible disturbance of the patient is necessary, as he need never be moved from his couch from the time of his departure till he arrives at his destination.

Besides the couch for the invalid another couch is sometimes present and is placed upon the opposite side of the carriage to that on which the former is placed. Three or four comfortable chairs are placed for the friends of the patient, of which some are fixed and some are moveable. Occasionally an invalid chair is supplied on which the patient can be wheeled about the compartment, such as to and from the lavatory. An invalid bed-table is sometimes provided. The saloon is well lighted by large windows, is well ventilated, and is upholstered in a style that leaves little to be desired. The carriages are warmed either by steam from the engine or by means of foot-warmers, the proper temperature being obtained in the carriage before the arrival of the patient. The latter method is the one most usually employed. The Midland and Great Western railways alone have any arrangement for the warming of food, &c., supplied in the carriage, a Bunsen stove being provided. Such an apparatus could be easily fitted on to the jet of any carriage lighted by gas, otherwise the attendants will have to bring their own apparatus. The Great Eastern Railway add a fifth compartment to their invalid carriage, which seats four friends and communicates directly with the patient's saloon. The composite invalid saloons of the Great Northern Railway, besides the ordinary four compartments for the invalid, the attendants, the luggage, and the lavatory, have an additional third-class compartment between the invalid and the luggage locker, which is isolated from the rest of the carriage.

The attendants' room is usually a second-class or third-class compartment which is connected by doors with the rest of the carriage, and is usually separated by another compartment from that of the invalid, and which is generally the luggage-van or the lavatory, but which of these it is varies considerably with the different lines. In the majority it is the lavatory, which may be entered through the doors from either the patient's room or the attendants' compartment. In this situation the lavatory may be used by all. The London and South-Western Railway are peculiar in placing the lavatory at the end of the carriage next the invalid (Fig. 4), giving a comparatively large compartment, 3 feet 7 inches in breadth, as compared with 2 feet 9 inches, with the water-closet on one

FIG. 1.



Invalid Saloon, Midland Railway, showing ordinary constitution and disposition of luggage locker and lavatory.

FIG 1A

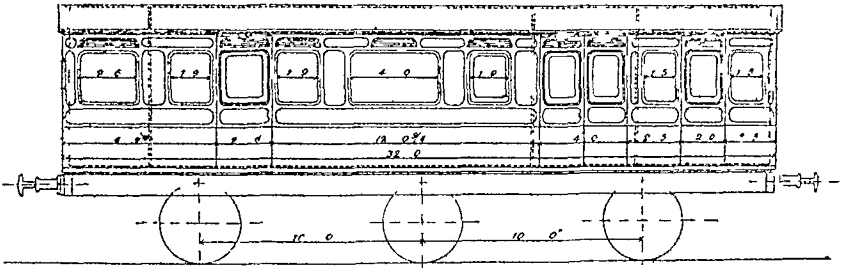
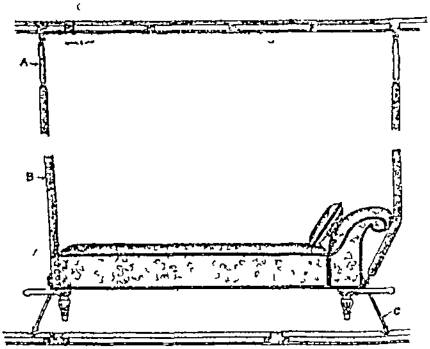


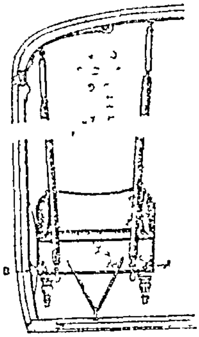
Diagram of the Invalid Railway Saloon, London and South Western Railway

FIG 2



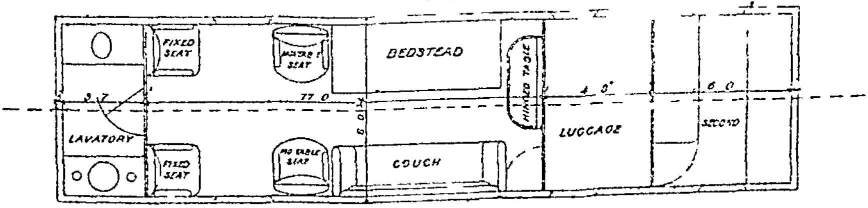
Invalid Saloon South Eastern and Chatham Railway, showing the method of slinging the invalid's couch.

FIG 3



Invalid Saloon South Eastern and Chatham Railway, showing method of restraining oscillation of couch

FIG 4



Invalid Saloon, London and South-Western Railway, showing alternative disposition of lavatory and luggage locker, as compared with Fig 1.

side of the carriage and a washing-basin on the other; but as a general rule the lavatory is, as we have said, between the attendants' and the invalid's compartments, whilst the luggage is placed at the end. This form is the most comfortable for all parties. The other will be most appreciated by the invalid and may be the more satisfactory upon long journeys.

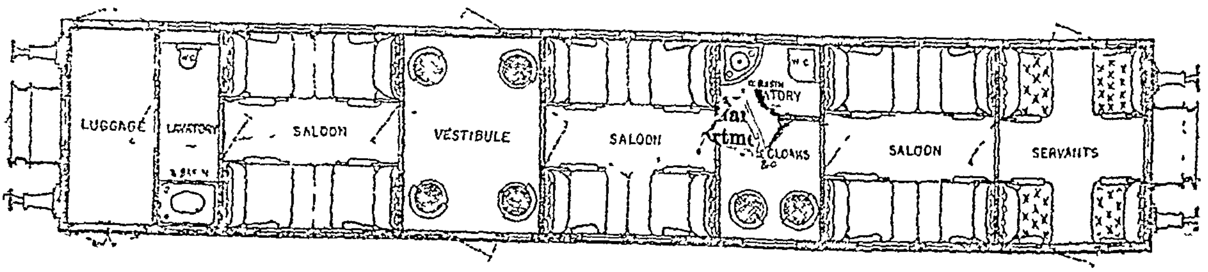
The Great Western Railway have an invalid traffic as large as, if not larger than, that of the London and South-Western line. They offer to the public the finest and most modern invalid vehicle, which deserves a special description. The carriage is 46½ feet long and runs upon two four-wheeled frames which can rotate under the carriage, thus diminishing all jolting, &c. These frames are called "bogies." At one end is a compartment 18 feet long with a couch for the invalid specially slung upon springs and anchored to the floor; next to this comes a lavatory, 5 feet 9 inches long and 3 feet 7 inches wide, and then follow two compartments for friends and attendants, the final division of the carriage being a luggage locker. A passage runs down one side of the carriage. This carriage can be hooked on to a corridor train. These saloons are modifications of the family carriage and lead on naturally to the next division of this report.

The price charged for the use of an invalid saloon on the various lines is as follows. On the Great Central, the North-Eastern, the London and North-Western, the Midland, the Great Northern, the Caledonian, the Glasgow and South-Western, and the North British railways, four first-class and four third-class fares. It will be noticed, however, that there is a regulation clearance office charge which is the same for all these northern railways. On the Great Eastern and Great Western railways the charge is seven first-class fares; while on the Great Southern and Western Railway of Ireland, the Great Northern Railway of Ireland, and the London and South-Western Railway it is six first-class fares. The South-Eastern and Chatham Railway charge 1*s.* per mile with a minimum charge of 40*s.*, while on the London, Brighton, and South Coast line the rate is 9*d.* a mile with a minimum of 40*s.* The above prices represent the minimum charge and all passengers must pay first-class fares except servants who pay third.

THE FAMILY SALOON.

The managers of lines which have no special invalid rolling-stock, and of some of those which have, advise the use of a family saloon for invalids to travel in. On the big lines these carriages represent the acme of comfort that the railway companies can offer. The family saloon is much longer than the invalid saloon, ranging from 42 feet to 48 feet in length, it is much heavier, and is run upon four-wheeled bogies. A bogie is a framework with wheels upon which the carriages can move, thus diminishing jolts, &c., and adding greatly to the smooth running of the coach. There are three separate compartments containing four seats each. At one end of the carriage is a luggage-van and next to it is a comfortable lavatory about three feet in breadth. The compartment which follows is that which is best transformed, with bed or couch, for the invalid's use; it is eight feet long, just allowing room for a comfortable couch to be made up Next the invalid's compartment is a vestibule containing four seats, followed by two saloons similar to the above and separated from each other by a second vestibule with a lavatory in it. The end compartment is for the servants (Fig. 5).

FIG. 5.



Family Saloon, London and North-Western Railway.

This variety of coach is of special value for long journeys on account of its smooth running, its equable temperature, which is obtained by steam heat from the engine, and its special lavatory for the invalid and a second one for others.

It can also be attached to the corridor train and so enable the passengers to communicate with the dining-car, but it must then be placed at one or other end of the train to avoid its being used as a passage by other people. A few of these cars contain a small stove which might be utilised for heating food, &c. The price for such a coach is the same as that for an invalid saloon—viz., usually four first-class and four third-class fares—and in it the London and North-Western Railway can take a patient from Torquay to the north of Scotland.

The Caledonian Railway Company offer invalid stock like that of their southern *confrère*, the London and North-Western Railway.

RESERVATION AND ALTERATION OF COMPARTMENTS.

On most lines less expensive modes of travel can be obtained, such as the engaging of a first-class or third-class carriage, which can then be made suitable for the invalid by means of putting boards and cushions between the seats. A lavatory carriage can almost always be obtained. The price for the reservation of a first-class compartment is usually that of four fares, or of a third-class compartment eight fares. By this means the patient can travel by the "crack" express trains to which most companies do not care to attach invalid coaches, as the train has to run fast and is timed so closely as not to allow for the pulling of extra weight. The Great Northern Railway charge six first-class fares if they have to run the carriage through to its destination.

The cheapest method of invalid travel, and also the least comfortable, is to get the company to bridge over the space between the seats of a first-class or third-class carriage. The expense will then be two fares for the invalid and one for the attendant. The rest of the carriage is open to the public.

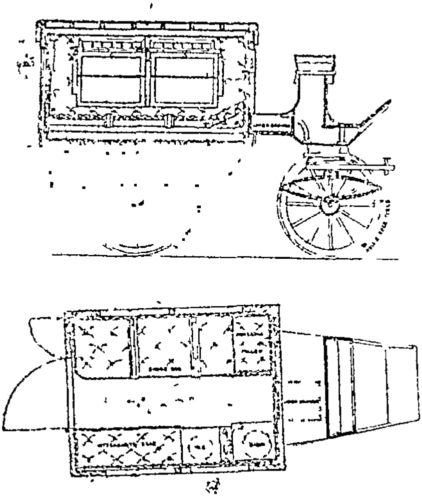
THE INVALID ROAD CARRIAGE.

Only three companies undertake the transference of the patient from house to house themselves. These are the Great Eastern Railway, the South-Eastern and Chatham Railway, and the London, Brighton, and South Coast Railway, all of which have special invalid road carriages built. In shape the vehicle is like an ordinary omnibus except that the driver's box is placed well in front and under it are the front pair of wheels. The body of the coach is carried on a single pair of large wheels and is swung by specially tested springs. On one side of the carriage is the invalid's couch, which is usually slung by springs; on the opposite side are a seat for the attendant, a water-closet, a basin, and a sink. The bridge that connects the driver's box and the body of the carriage is hollowed out to form a linen-drawer. There are two doors at the end of the carriage which enable the patient to be lifted straight out whilst lying on the couch and to be conveyed to the saloon or house (Fig. 6). Or if the journey is to be continued in the invalid road carriage it is placed upon a railway carriage truck where its wheels are fixed by means of blocks, &c., and to stop the oscillations leather bands are either fixed to some ironwork or passed over the roof of the carriage and the other ends fixed to the truck. In this way the carriage is tied tightly down with the springs tense. At the other end of the journey the carriage is detached and driven to its destination.

For the railway companies which do not undertake the transference of the patient from house to house Messrs. H. and T. Reading, of Ridinghouse-street, Langham-place, W., do the greater part of the traffic. They have two classes of vehicle for this method of travel. The first is the invalid's coach, which contains a spring-suspended couch and can seat two other people; and the second is the invalid's omnibus which is much more roomy, containing accommodation for four other people, water-closet, basin, &c., and is mostly used for surgical cases. These carriages are transferred and fitted on to a railway carriage truck, and dealt with by the various railway companies just as has been described above. They are heated by means of foot-warmers.

The prices for the road-carriage method of travel vary somewhat with the different lines. On the South-Eastern and Chatham Railway the charge for the road carriage, when occupied, is 1*s.* 6*d.* per mile, and when it is empty 6*d.* per mile, the minimum charge being 50*s.*, a first-class fare for each attendant, and a fee of 10*s.* 6*d.* for the company's caretaker. This includes a road journey of not more than three miles at either end. An extra charge is made if the carriage is not returned in 24 hours. On the Great Eastern Railway the charge for the road carriage when occupied is 1*s.* 6*d.* per mile and a first-class fare for each attendant. The company do not state any charge for the truck returning empty, any fee for the caretaker, or any minimum charge. The horses are to be provided by the hirer. On the London, Brighton, and South Coast Railway the charge for the road carriage, when occupied, is 1*s.* 3*d.* per mile, and when it is empty 6*d.* per mile, the minimum charge being 50*s*, first-class fares to be paid for all passengers. The contract includes three miles' drive at either end of the journey. They have the same rule as the South-Eastern and Chatham Railway as regards the retention of the carriage. The Great Northern Railway will undertake the transference of invalids from house to house by means of their omnibuses or by the St. John Ambulance Association. The Great Western Railway employ a private firm to move the patient from station to house and *vice versâ*. Messrs. H. and T. Reading charge one guinea for the first 10 miles and half a guinea for every further 10 miles, and 7*s.* 6*d.* as a fee for a special caretaker. Besides this there are the full charges of the railway company on which the patient travels.

FIG. 6



Invalid Road Carriage, Great Eastern Railway. This is fastened on to carriage-truck and so transported on the railway. In use on the Great Eastern Railway, South-Eastern and Chatham Railway, London, Brighton, and South Coast Railway, and on other lines by private firms

It will be seen that travel by rail in an invalid road carriage or omnibus presents but few advantages. It allows of the minimum of disturbance to the patient which is its great advantage. The objections to it are that the carriage as compared with a saloon is smaller, darker, and not so well ventilated, also the water-closet pan cannot be conveniently cleansed during the journey. Again it is the most expensive method of special railway travel just as it is the least convenient. The disturbance of the invalid can be minimised by driving the patient in one of the vehicles, carrying him on the couch to the saloon, when the couch is deposited upon the springs and is removed with the patient to the carriage at the other end of the journey. In this way the least disturbance to the invalid is obtained together with the greatest comfort and convenience. The invalid may easily be brought to the saloon by means of a hand carriage or moveable couch, such as is supplied by Messrs. Reading, and carried to the saloon; the same couch can also be used in the invalid carriage sent to meet him at the other end of the journey. The method of using the hand carriage lessens the expense and enables the invalid to travel in the saloon instead of on a truck.

INVALID TRAFFIC.

The amount of invalid traffic upon the different railways varies considerably. The lines that serve the southern counties are naturally those which have the most traffic and with this in view the first application for information was made to the London and South-Western Railway. This company on the average convey from 600 to 700 invalids yearly, as they have the monopoly of such places as Bournemouth, Swanage, Weymouth, Bude, Sidmouth, &c., which figure represents a far higher list than other companies, except the Great Western Railway, can show. Yet looking at the matter from the cold-blooded point of view of the shareholder invalid traffic does not pay, though half a loaf is better than no bread. Competition for invalid traffic hardly occurs at all, as each line taps a certain number of health resorts and so forth. Hence there has been no great stimulus for special improvements and cultivation of this branch of travel; so long as satisfaction is given all that is necessary is done. Beyond this it would seem unfair to expect more from a company which is a mercantile organisation and not a philanthropic institution. The London and North-Western Railway have no favourite health resorts upon their line and are chiefly employed with through traffic and long journeys. Hence their advocacy of the adoption of the luxurious family saloon for invalid travel. The introduction of the use of such a vehicle inaugurates quite a new era and corresponds in this branch to the introduction of corridor trains, &c., for ordinary travel. The price is the same as for a more primitive invalid saloon. There are certainly one or two alterations which would have to be made to make the family saloon an ideal invalid vehicle. This company also state that this traffic is worthy of special attention and is increasing. The Midland Railway carry over 400 patients in special saloons yearly, and, like the North-Western Railway, chiefly do through traffic. The Great Northern Railway Company of Ireland serve Rostrevor, the "Riviera" of Ireland, and supply an invalid chair for the conveyance of the patient from the station entrance to and from the carriage. The Great Southern and Western Railway of Ireland are of the opinion that this traffic is sufficient to warrant special cultivation; the saloons are used 40 times yearly. The North-Eastern Railway use their special saloons over 200 times a year and run them chiefly to Bridlington, Filey, Harrogate, Scarborough, and Whitby. The Great Eastern Railway have no favourite resorts upon their system and utilise their special carriages over 100 times yearly and their invalid road car only 40 times. The South Eastern and Chatham Railway report that this traffic is inconsiderable and although they offer special facilities it is insufficient to warrant special cultivation. On the Great Central Railway the traffic is small, but as they have recently constructed special saloons containing beds it cannot be unworthy of their attention. The Great Northern Railway's invalid traffic varies so much that it is difficult to express definite opinions as to its value. The London, Brighton, and South Coast Railway convey most of their invalid traffic to Brighton. Of the Scotch lines the Caledonian Railway serve principally Moffat and the Bridge of Allan; the Highland and Glasgow and South-Western railways do but little; the North British Railway send to North Berwick, Melrose, Peebles, St. Andrews, Comrie, Ballater, &c. The Great Western Railway have a very considerable invalid traffic from such health resorts as Torquay and Malvern, and as they, of all the companies, have catered most of all for the invalid, this company must be looked to for any future improvements.

In conclusion, thanks must be expressed to the general managers and superintendents of the line of the various railway companies for their kindness and help in drawing out this report.

REPORT OF THE MEDICAL OFFICER TO THE LOCAL GOVERNMENT BOARD, 1899-1900.

III.[1]

In the previous notices reference has been made to the precautions which were taken against the spread of the plague and to the auxiliary scientific investigations which were undertaken by the medical officers of the Local Government Board. The ordinary routine work of the medical department of the Board remains for consideration. This work may conveniently be divided into three departments: (1) the precautions taken for the prevention of small-pox—that is to say, the work done in connexion with vaccination; (2) the local inquiries which are made in the case of insanitary areas and of towns visited by infectious diseases; and (3) the statistics compiled of the number of cases of infectious diseases and of the mortality which occurs from them. The figures and the statistical details in regard to the notified attacks and the registered deaths from certain infectious diseases in 93 urban sanitary districts in England and Wales are contained in Appendix A, No. 12. Information of a like character which is published for the several sanitary districts of the metropolis has been given in the columns of The Lancet week by week. Appendix A, No. 13, contains tables prepared (under the direction of the late Sir Richard Thorne) in regard to the incidence of infectious disease in urban districts and in the metropolitan areas for the five-yearly period 1893–97. The report by the vaccination officers (Appendix A, No. 1) refers to children whose births were registered during the year 1897. From the tables given it appears that in the case of 929,518 births 62·4 per cent. were successfully vaccinated; 11·2 per cent. died unvaccinated; 0 3 per cent. were said to be insusceptible to vaccination; and 3·4 per cent. were not vaccinated because certificates were obtained (under the Act of 1898) that the guardians of the children were afflicted by conscientious objections to the practice. Concerning the remaining 22 7 per cent. accurate information was wanting; included in this remainder are a number returned as "postponed," "removed," and "not to be traced." This percentage of defaulting or unreturned cases is larger than that in any record which has previously been made for England and Wales. In the case of London the number in default was no less than 29 1 per cent., and for the rest of the country it was 21·6 per cent. Reports on the inspection of public vaccination are given in Appendix A, No. 2, from which it appears that 1083 public vaccinators out of a total number of 1461 were recommended for award under the provisions of the Vaccination Act of 1867. During the year 1898 nearly 500,000 capillary tubes containing glycerinated calf lymph were sent to public vaccinators. Appendix A, No. 4, contains an account of the animal vaccine establishment at which during the year 1899–1900 2614 primary vaccinations were performed. The arrangements at the animal vaccine establishment which were made in the first place at the Jenner Institute for Preventive Medicine under the National Vaccine establishment proved inadequate, and at the close of the year 1899–1900 arrangements were being made for setting up several similar establishments on a wider and more satisfactory basis. Dr. Blaxall reports on the operation of the glycerinated lymph establishment which is under the management of the Local Government Board, and relates the difficulties which occurred in providing a sufficient amount of lymph. During the year 269 calves were sent from the department and all of these were examined by a veterinary surgeon after they were slaughtered and were found to be free from disease. Two others which seemed to be in health during the course of vaccination were found by the veterinary surgeon to be suffering from tuberculous disease. The lymph which had been obtained from these calves was at once destroyed; none of it was issued. It is not stated in the report that any examination was made of this lymph before its destruction.

Of all the work which is done by the medical officers of the Local Government Board certainly none is more important than the investigations which are made in regard to the incidence of disease in particular places and the tracing out of the conditions under which outbreaks of preventable disease occur. The amount of work of this kind which is done is enormous. The staff of the medical department have in the course of their duties to confer with the representatives of sanitary authorities in regard to the needs of their districts for the provision of by-laws of sanitary import; they have to consider proposals which are made for the provision of hospitals and in regard to the suitability of the sites proposed, and they advise also as to the best plan for the arrangement of the hospital buildings on the sites selected. During the year under review formal inquiries have been held by the medical inspectors as to the provision of hospital accommodation in over 60 towns and rural districts. Two local inquiries were held as to the provision of disinfectors and one as to the provision of a mortuary. In seven instances local investigations were made in regard to the adaptation to local needs of by-laws of sanitary import. Local inquiries were also held as to the best method for the disposal of sewage in various places, as to the provision of water-supplies, and in one case as to the formation of a joint board under the Rivers Pollution *Prevention Act* for the protection of the river Dee. The special requirements of particular parishes in regard to scavenging have been investigated and many inspections as to the cause of the incidence of disease have been made. In many of these cases facts of very great local interest have been obtained. Advice has been given to the local authorities as to the best method of getting over the difficulties into which they have fallen either from carelessness or from ignorance. Some of the facts which are put on record in the case of certain towns and rural districts are very striking and the clear way in which the reports are made renders it impossible for the local authorities to plead that the deficiencies to which their attention is called in the report have been mentioned with ambiguity.

A few samples will show the method which has been adopted and the way in which advice is given. Aldershot, with an estimated population of 16,500 and containing a camp with an estimated population of 13,894, suffered from severe epidemics of diphtheria. It was found that there was no isolation hospital and that no proper disinfecting apparatus had been established by the urban district council. The wells were liable to pollution, there were many old sewers, the sewerage was imperfect and the flushing insufficient. The arrangements made for carrying away the storm water were inadequate, the drainage of houses was often faulty, and the treatment of the sewage was not satisfactory. Houses were often damp, back yards were not paved, the by-laws referring to common lodging-houses were flagrantly neglected, animals were kept so as to become nuisances, and regulations as to cowsheds were not enforced.

Dr. H. T. Bulstrode's report on the sanitary condition of the borough of Windsor and upon the character of the town council's administration is of great interest. The past history of the management of this town has, as readers of The Lancet know, been most unsatisfactory. As long ago as the year 1885 the reports of our Special Commissioner on the poorer parts of the town appeared in our columns. A deputation of the town council afterwards waited on the Right Hon. C. T. Ritchie (in September, 1886) when an inspector was appointed to investigate the condition of the borough. As the result of this inquiry certain specific recommendations were made. Some years later (in 1890) Dr. H. Airy and Mr. Arnold Taylor were appointed by the Local Government Board to report on what had been done in the town and what still remained undone.[2] Public attention was again forcibly called to the state of the town in July, 1899, and Dr. Bulstrode was deputed to make an inquiry, the results of which have already been published in our columns.[3]

A report on enteric fever in the city of Chichester by Dr. T. Thomson and Colonel J. T. Marsh is of great interest and is worthy of careful study. We have not space to give even a summary of this report. It must suffice to say that it shows evidence of the greatest care in its production and that it is illustrated by a series of charts and maps. In the course of the inquiry the *investigators were led to consider* the possibility that the frequent recurrences of enteric fever at Chichester might be due to the pollution of the soil, and at their suggestion a bacteriological examination was undertaken. A few samples only were experimented upon by Dr Houston, to whom the research was intrusted, and the results were negative.

---

[1] Nos. I. and II. were published in The Lancet of June 15th (p 1705) and 22nd (p 1779), 1901, respectively.

[2] This report is dated Jan. 23rd, 1900.

[3] The Lancet, Dec. 1st, 1900, p. 1591, 1607.

One of the most thorough, exhaustive, and convincing reports in the Supplement is that by Dr G. S Buchanan upon epidemic enteric fever in the port of Falmouth. It is a model of what such a report should be and it is to be hoped that this research will be of use to the people of Falmouth, a town of great natural charm which has been rendered insanitary by the neglect and carelessness of its governing authority. It is to be feared that too often very little importance is attached to reports which are made at great trouble primarily for the sake of local authorities. The reports necessarily are not published directly they are made, the book in which they are contained is one which has not a very large circulation, and there are doubtless many people in Windsor, in Chichester, and in Falmouth who, although they are naturally interested in the healthiness of the places in which they live, may be still unaware that a very large amount of information which deeply concerns their welfare has been lately published.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, QUEEN SQUARE.

REPORT OF THE COMMITTEE OF INQUIRY.

THOSE of our readers who have followed the course of affairs at the National Hospital for the Paralysed and Epileptic, Queen-square, will be interested to know the salient features of the report and findings of the committee of inquiry which we are now enabled to lay before them. The whole report is too long to quote, so we are unable to do more than refer to the chief points We may first recall the fact that at a special general meeting of governors and members of the hospital on March 23rd, 1901, a resolution was passed "that a full and independent inquiry be at once instituted into the statement issued by the medical staff in May, 1900, the facility of inter communication between the medical staff and the board, including the demand of the former for direct representation on the Board; the position, function, and acts of the secretary-director, and the constitution, rules, and management of the hospital generally" The "committee of selection," chosen from governors of, and subscribers to, the hospital, elected as the committee of inquiry the following gentlemen, the chief points of whose report and findings we append Sir Edward Fry, Kt. (chairman), the Right Hon. the Lord Wolverton, Sir W W. Karslake, Kt, K C, Mr Timothy Holmes, F.R C S. Eng, and Mr Cecil Henry Russell

The allegations of the staff with regard to unsatisfactory food and insufficient supply of linen are found to be justified, while the nursing staff is declared to be inadequate The draw-sheets are washed in the hospital laundry, where only one woman is employed, and consequently the work is inefficiently done But the most important finding of these gentlemen, as in volving a most radical change in the method of management of the hospital, is to be found in paragraph 79, in which the opinion is expressed "that the office of general director in the hospital should be abolished and that the hospital should be carried on under one or other of the following schemes of government: (1) that the secretary should be entrusted with the ordinary duties of a secretary and that in addition he should be the chief executive officer of the Board of Management, but should be restrained from interfering in any way with the lady superintendent and the members of the medical and resident staffs and with all persons and things placed under their control, and that the house physician, lady superintendent, and secretary should be required in all cases of difficulty to consult, so far as possible, the chairman or vice chairman of the Board and to act in accordance with his advice; (2) that a resident medical superintendent should be appointed as a permanent official who should not only discharge the duties of the senior house physician, but should also be the responsible and resident head of the whole institution under the Board of Management" It will be seen that these recommendations if carried out will entirely remove the *fons et origo mali* to which the troubles that have arisen were all directly due—viz., the paramount and undesirable position of the secretary-director. Another important opinion expressed is that "the direct representation of the medical staff on the Board of Management would beyond all other methods secure the best and most satisfactory means of inter-communication between the medical staff and the Board, and that it would be to the great and permanent benefit of the hospital" The report goes with great detail into questions of finance, of the position of matrons, of the secretary-director, of payment by out-patients, and other matters, and throughout shows such care and good judgment that all concerned with the welfare of the institution must rest satisfied that a future based on the lines here laid down will be free from the frequent troubles of the past.

THE JUBILEE OF THE ISLINGTON MEDICAL SOCIETY.

WE regret that the pressure on our space caused by the meeting of the General Medical Council made it impossible for us to give a full report of the proceedings of the dinner to celebrate the Jubilee of the Islington Medical Society. The speech of the President gives the interesting history of the society and we have much pleasure in finding room for it. In proposing the toast of the evening, "Success to the Islington Medical Society,"

Dr. J G **GLOVER** said: The reasons which induce men to form themselves into societies or clubs are very various and sometimes curious. Addison with his usual humour has descanted on this point Probably there is no better reason for combining to form a society than community of profession. And of all professions in which the sociable principle is useful that of medicine stands foremost I have myself been consistent in this matter. For many years I have been a member of a local medical society, of the one whose jubilee we are celebrating to night, and of a central society—the Clinical Society of London—I have been a pretty regular attender and have always found myself amply repaid for the trouble and inconvenience of attending either. The anxieties of practice and the worry of exceptional cases are often much mitigated by an hour spent in the society of men of the same profession having similar anxieties and cases Unfavourable or suspicious thoughts of our neighbours are often corrected by such intercourse And when great epidemics rage and a point of contact is needed between the members of the medical profession and the medical representatives of the local sanitary authority, there is no point more obvious or more available than that supplied by the meeting of the local medical society It was doubtless with some such thoughts and views that a number of medical men met more than 50 years ago—for it was in 1850—in the house of Mr. Clifton, senior, 38, Cross street—a house which for a generation afterwards was well known to the profession, any member of which could be sure of receiving from its proprietor advice or help in any emergency or difficulty of practice On that memorable night in 1850 fourteen gentlemen were present Mr Clifton, senior, whose diploma dated back to 1807, presided. The others, as the founders, deserve to be remembered on this occasion. One of them—Mr J T. Jackson—happily still lives and is in practice, and might possibly have been with us to-night had he not been contending with his ninth attack of influenza The rest were Messrs Burrows, Camplin, Semple, Marston, Fullerton, Cattlin, Dreury, McOrea, Bradley, Bateman, Allan, and N. H Clifton These are much respected names in Islington—and within a very short time others were added, notably the late Mr Kesteven, Dr Stokes, and the late Dr Ballard, who afterwards did most admirable service in the medical department of the Local Government Board and enjoyed the high respect and affection of his chief, Sir John Simon These gentlemen were the founders of the society which still survives and their names are associated by us with all that is honourable and useful in practice Their example and their spirit still remain with us They little thought when they met in that room in Cross street in February, 1850, that 50 years afterwards so large and goodly a company would gather together to celebrate the occasion and to remember them with respect and gratitude They have disappeared; their work remains It is an old story.

"We men must vanish, be it so,
Enough if something from our hands have power
To live, and grow, and serve the future hour"

I should be wanting in my duty if I did not carefully enumerate the names of the five successive secretaries who have served the society and to whom it is under a great debt of gratitude—viz., Mr. N. H. Clifton, Mr. Keele, Dr. A. Reid, Dr. H. Frazer Stokes, and, now, Mr. David Keele. I need not say more to commend the toast of the evening, "Success to the Islington Medical Society." It has been a great bond of intercourse, a great source of help, and a means of friendship to its members; meeting at each other's houses; indulging in nothing stronger than tea and coffee; conducting its discussions mostly in a conversational way save on those many occasions when the society has been favoured with addresses on important subjects from consultants, metropolitan or provincial. No one in the profession is so secure in his position that he can be sure of not needing the help and sympathy of such a society. The good of medical men may be evil spoken of; their practice may be misunderstood and their fair name may have to be vindicated. The society has not been without its uses in that respect. I should be ungrateful if I did not give a somewhat personal illustration of its uses in other circumstances. Some years ago a somewhat ambitious though humble member of the profession was desirous of being elected to represent the general practitioners of England and Wales on the General Medical Council. If a man like my friend on the right, Sir William Turner, wanted such a post his name would be recognised throughout the country. But for a general practitioner in a suburb of London the problem was not so easy. I resolved to appeal in the first instance to my neighbours and to the members of this society. I felt that if I could not have their support I was not worthy of election by the profession. Dr. Stokes, whom we all miss much to night, became my chairman. Mr. Keele and the honorary secretaries spared neither time nor trouble in my behalf, all my neighbours gave me a good "send-off," and for 15 years I have been in the honoured position of Direct Representative, which I feel I owe not a little to the help of this society. I propose to you its prosperity, and can wish no better for the society and the district than that the traditions and the spirit of the Cliftons and Cattlins of Islington may long survive.

THE INCORPORATED MEDICAL PRACTITIONERS' ASSOCIATION.

The tenth annual meeting of the above association was held at the Holborn Restaurant, London, W.C., on June 20th to receive the report of the central council and to elect officers for the ensuing 12 months. The report, which was unanimously adopted, stated that during the last 12 months the association had steadily grown in usefulness and influence, whilst the financial position was now more satisfactory than it had been for some years past. As in former years the association through its council and individual members, had strenuously and successfully opposed the Bill for the registration of midwives. Reference was made to the club and medical aid question and members were recommended to combine with their medical colleagues in establishing local centres of provident medical aid to be absolutely independent of lay control. The report was unanimously adopted. The election of officers was then proceeded with and Dr. Henry Blake (Great Yarmouth), on the nomination of the Great Yarmouth branch of the association, was unanimously elected president for the ensuing 12 months. Mr. J. S. E. Cotman, the retiring President, was elected a life vice-president. Dr. C. T. Aveling having served as a member of the central council for three years was added to the line of vice-presidents. The following names were added to the list of members forming the General Council:—Mr. A. Phillips Hills, Dr. A. L. Mathieson (Sheffield), Mr. A. H. Moxon (Great Yarmouth), Mr. J. C. Smith, and Mr. R. F. Tomlin (Wood Green). Mr. F. Greave was re-elected honorary treasurer, Mr. George Brown honorary secretary, and Mr. J. S. Cotman general secretary At the conclusion of the meeting dinner was served in the Gordon Salon, the newly-elected President, Dr. Blake, being in the chair. About 40 members and guests were present, among whom were Dr. H. Macnaughton Jones, Dr. F. J. Allan, Dr. J. Pollock Simpson, Dr. Frederick Spicer, Mr. George Jackson, (Plymouth), Mr. G. H. Broadbent (Manchester), and Dr. Rivers Willson (Oxford). Replying to the toast of the evening, "The Incorporated Medical Practitioners' Association," which was proposed by Mr. J. S. E. Cotman, the President said he was gratified to learn from his predecessor that the association was in a thoroughly satisfactory state. Like the late president, he felt that as long as they kept to their published programme the association must progress. Referring to the club question with which they had had to deal at Great Yarmouth Dr. Blake said that the local practitioners had lost practically all their clubs through insisting on the adoption of a wage-limit and class-limit for members. Their ruin was foretold, but none of them had been ruined, indeed they rejoiced in their freedom from clubs. Ruin was, however, threatening the other side. They—the late club medical officers—were more than ever convinced that a wage-limit and class-limit should be insisted upon, and they now realised that even properly regulated clubs are not necessary for the support of a general practice. Further, he would say that a practice which was improved by a women and children's club must be a poor practice indeed. Referring to the difference between the Conjoint Board for England and the General Medical Council Dr. Blake said his sympathies were with the Conjoint Board. He regarded the action of the Council in forcing boys to go to London to study science when they might spend the year to better advantage at some of the excellent schools recognised by the Conjoint Board as prejudicial to the interests of the profession. In conclusion, he would give the assurance that the officers of the association would during the ensuing year do all they possibly could to promote the interests of the profession. The toast of "The Visitors," proposed by Mr. Joseph Smith, was responded to by Dr. Macnaughton Jones, and Mr. Jackson responded to the toast of the "Provincial Members," which was proposed by Mr. Brown.

PLAGUE IN EGYPT.

According to the system which has obtained in Egypt ever since an English element was introduced into the sanitary department, the greatest possible publicity is given to all outbreaks of infectious disease. Formerly concealment used to be the main object, but now the public receive warning in due time and are consequently able to adopt precautionary measures with a fair prospect of success. As regards plague it is the present custom of the head of the sanitary department to submit weekly reports during the continuance of each epidemic of the disease to the Minister of the Interior, for such action as that official and his adviser may deem desirable. The first of these reports for the current year has been forwarded to us. It is dated "Cairo, June 9th," and covers four type-written pages of foolscap. In the following summary the chief points will be found briefly stated.

On June 1st two suspicious cases were reported at headquarters from Zagazig, which is one of the most important towns in the Delta and has a population of 35,715, including 1572 foreigners. The next day Major C. Garner, R.A.M.C., and Dr. Bitter, the chief bacteriologist of the department, proceeded to the spot, the former to take "immediate measures to isolate the sick, keep all contacts under control, and thoroughly disinfect the houses and their neighbourhood where the cases had been discovered"; and the latter to make a bacteriological examination of the affected cases. On the following morning Dr. Bitter pronounced the disease to be plague and to the same cause he also ascribed a death which had occurred out of the hospital. On June 4th and following days several more patients were isolated in the infectious hospitals which Major Garner had extemporised for Europeans and natives respectively, but happily most of the cases were of a mild character. The total number of persons affected is not stated, but with regard to the etiology of the outbreak Mr. H. H. Pinching, the present head of the sanitary department, who himself visited Zagazig on June 6th, has no doubt that the disease must have existed some time in the town and remained unrecognised owing to its subtle nature and to the extreme difficulty which observers who have had no previous experience of plague must find in diagnosing it. "I cannot help thinking this is almost unavoidable," continues Mr. Pinching, and he also has grave doubts whether the channel of communication through which the infection was carried to the town of Zagazig will ever be discovered. The place is in constant communication with Port Said, where there was plague last year, and the Greeks and Jews among whom the disease occurred, frequently travel to and from Alexandria with all kinds of merchandise.

On June 2nd a suspicious case was signalled from Minieh, which is a considerable town situated in Middle Egypt and having a population of 20,404, of whom not more than 280 are foreigners. Dr. Bitter and Dr. H. O. Goodman proceeded there on June 3rd and found a young man, a native, about 25 years of age, suffering from suspicious symptoms. The case having been bacteriologically diagnosed as plague, measures similar to those at Zagazig were promptly taken, and up to the date of the report no further cases had been discovered. There was, it is true, an old woman, a Copt, whom the local inspector thought presented symptoms resembling those of plague, but when at last she was found and examined the bacteriological results were negative. As soon as the relatives of this patient heard of the coming of the officials from Cairo they were stricken with unreasoning terror and concealed the poor creature in some remote oubliette, whence it was only after a lengthened search that Dr. Goodman was able to rescue her. All efforts to trace the source of the infection remained fruitless. Some 16 days before the young man had been at a fair in the vicinity, and according to the local sanitary inspector it was on his return that he first fell ill.

On June 6th a native, about 25 years of age, was observed to be suffering from marked symptoms of plague at Mansourah, which is a large town in the delta standing on the Phatnitic branch of the Nile with about 35,000 inhabitants, including 1639 foreigners. Graham Bey, who examined the case bacteriologically, pronounced it to be one of plague, and the man subsequently died. It was ascertained that he had arrived at Mansourah on June 5th, having left Zagazig three days previously. All the customary sanitary measures were put in force, and up to June 9th no further outbreak had been reported.

The following case, the last on the list, is incomplete, for it is not stated what punishment, if any, was meted out to the inhuman clerk. On June 7th the corpse of a Soudanese boy who had died from plague was found in the closed house of a clerk employed in the Parquet at Zagazig. When this person and his family found their servant "*in extremis* they left him in the house to die by himself, locked the door, and all fled" to Kafr-el-Zayat, which is another Deltaic town situated on the Canopic branch of the Nile. This Government clerk, who must have been a man of some education, knew perfectly well that his servant was suffering from a disease which the sanitary officials were doing their utmost to subdue, and yet he "in no way notified the case but left the wretched boy to die in a most heartless manner, and did his best to infect a town which up to the present has remained immune."

In conclusion Mr. Pinching says: "I think it my duty to point out to your Excellency that I consider the position of the country with regard to the probability of the disease assuming an epidemic form is more serious than it has been for the last two years." The head of the Egyptian sanitary department bases this important warning on the fact that several towns far apart from each other are known to have been contaminated, as well as on the probability that other intermediate towns and villages must have likewise become infected without information to that effect reaching him. "Happily, the general health of the country is at present good, and the mortality in general, and in the towns infected, low."

THE NEW WING AT ST. THOMAS'S HOSPITAL.

ON June 20th Lord Lister opened a new wing at St. Thomas's Hospital. The building consists of two operating theatres with anæsthetic rooms, a children's ward, and various rooms for staff, assistants, store room, &c. The cost of these additions to the accommodation of the hospital is about £20,000.

The special points to be noticed with regard to the theatres are the marble auditoriums of three rows only; the rounding off of all angles to prevent the collection of dust; the sterilisation of instruments under the surgeon's eye in the theatres; provision for purifying soiled clothes, and mackintoshes by steam; and, the sterilisation of instruments, dressings, ligatures, &c., solely by means of heat. Lighting is effected by means of a window in the roof and by electricity. All persons engaged in the operation on the floor of the theatre will wear sterilised overalls and clean rubber boots which are only to be used in the theatre. The lower 6-7 feet of the walls are of marmorite slabs and the upper parts are of white enamel. The passage outside the theatre is forbidden to all except operators and assistants.

The children's ward is prettily decorated with Doulton ware panels in shades of pink, blue, and green, illustrating fairy tales and nursery rhymes. These tiles are the gift of Mr. S. G. Holland, one of the governors of the hospital, in memory of his daughter Lilian. Outside the children's ward, which contains 15 cots, there is a balcony about nine feet wide covered by a sloping roof. The view of the river Thames and the Houses of Parliament is, however, unfortunately obstructed from this balcony by the inelegant roof of the nurses' dining room, and it is to be hoped that it is not yet too late to remedy a decided fault.

The other rooms include a staff room (apart from the theatre) where tea will be served to the visiting staff, an anæsthetic recovery room next to the lift, and store-rooms. The ventilation of the block is accomplished by means of the Plenum system. The air is cleaned by three screens of cocoanut matting over which water is trickling continuously. Between each screen and outside them are coils of pipes for heating or cooling the air which is driven by a fan worked by a two-horse dynamo.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6333 births and 3301 deaths were registered during the week ending June 22nd. The annual rate of mortality in these towns, which had been 16·3, 15·2, and 14·5 per 1000 in the three preceding weeks, rose again to 15·0 per 1000 last week. In London the death-rate was 13·8 per 1000, while it averaged 15·8 in the 32 large provincial towns. The lowest death-rates in these towns were 8·0 in Brighton, 10 7 in Norwich and in Portsmouth, 10·8 in Croydon, and 11·5 in Huddersfield; the highest rates were 18·3 in Manchester, 18·4 in Sunderland, 18 8 in Halifax, and 21·1 in Liverpool. The 3301 deaths in these towns last week included 356 which were referred to the principal zymotic diseases, against 320 and 357 in the three preceding weeks; of these 101 resulted from measles, 77 from diarrhœal diseases, 68 from whooping-cough, 59 from diphtheria, 37 from scarlet fever, 13 from "fever" (principally enteric), and one from small-pox. No death from any of these diseases was registered last week in Derby or in Burnley; in the other towns they caused the lowest death-rates in Croydon, Norwich, Blackburn, and Huddersfield, and the highest rates in West Ham, Bolton, Salford, Halifax, and Hull. The greatest proportional mortality from measles occurred in West Ham, Bolton, and Hull; from whooping-cough in Plymouth, Sunderland, and Newcastle; and from diarrhœal diseases in Wolverhampton, Liverpool, and Bolton. The mortality both from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 59 deaths from diphtheria included 18 in London, five in Sheffield, four in Salford, and four in Halifax. One fatal case of small-pox was registered in Liverpool, but not one in any other of the 33 large towns; and only one small-pox patient was under treatment on Saturday last, June 22nd. in the Metropolitan Asylums hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2707, against numbers increasing from 1522 to 2594 on the eight preceding Saturdays; 368 new cases were admitted during the week, against 317, 314, and 323 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 240, 187, and 159 in the three preceding weeks, further declined last week to 150, and were 53 below the corrected weekly average. The causes of 33, or 1·0 per cent., of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Manchester, Bradford, Newcastle, and in 14 other smaller towns; the largest proportions of uncertified deaths were registered in Portsmouth, Norwich, Liverpool, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 20 7 to 16·9 per 1000 in the four preceding weeks, rose again to 18 6 per 1000 during the week ending June 22nd, and showed an excess of 3·6 per 1000 over the mean death-rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 14 1 in Leith and 14·5 in Greenock to 18·5 in Edinburgh and 19·9 in Glasgow. The 592 deaths in these towns included 44 which were referred to whooping-cough, 25 to measles, 13 to diarrhœa, eight to scarlet fever, three to diphtheria, three to "fever," and one to small-pox. In all, 97 deaths resulted from these principal zymotic diseases last week, against 102 and 75 in the two preceding weeks. These 97 deaths were equal to an annual rate of 3 0 per 1000, which was 1·4 above the zymotic death-rate during the same period in the 33 large English towns. The fatal cases of whooping-cough, which had been 48 and 32 in the two preceding weeks, rose again last week to 44, of which 24 occurred in Glasgow, 12 in Edinburgh, four in Leith, two in Dundee, and two in Greenock. The deaths from measles, which had been 21 and 17 in the two preceding weeks, rose again to 25 last week, and included 15 in Glasgow, three in Edinburgh, three in Dundee, and three in Leith. The fatal cases of diarrhœa, which had declined from 30 to 17 in the four preceding weeks, further decreased last week to 13, of which eight were registered in Glasgow and three in Paisley. The deaths from scarlet fever, which had been one and three in the two preceding weeks, further rose to eight last week, and included five in Glasgow. The three fatal cases of diphtheria corresponded with the number in the preceding week, and included two in Edinburgh. The deaths referred to different forms of "fever," which had been six and three in the two preceding weeks, were again three last week, of which two were recorded in Glasgow, where the fatal case of small-pox also occurred. The deaths referred to diseases of the respiratory organs in these towns, which had been 98 and 101 in the two preceding weeks, declined again last week to 92, but showed a slight excess over the number in the corresponding period of last year. The causes of 32, or more than 5 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The annual rate of mortality in Dublin, which had been 20 0 and 19 6 per 1000 in the two preceding weeks, rose again to 20 2 during the week ending June 22nd. During the past four weeks the death-rate has averaged 20 3 per 1000, the rate during the same period being 14·3 in London and 19 5 in Edinburgh. The 183 deaths of persons belonging to Dublin registered during the week under notice were four in excess of the number in the preceding week, and included 10 which were referred to the principal zymotic diseases, against five, nine, and eight in the three preceding weeks; of these, three were referred to whooping-cough, three to diarrhœa, two to "fever," one to scarlet fever, and one to diphtheria. These 10 deaths were equal to an annual rate of 1·4 per 1000, the zymotic death-rate in London also being 1·4 per 1000, while in Edinburgh it was 2 9 per 1000. The fatal cases of whooping-cough, which had been five and three in the two preceding weeks, were again three last week. The deaths from diarrhœa, which had been two and four in the two preceding weeks, declined again last week to three. The 183 deaths in Dublin last week included 17 of children under one year of age and 38 of persons aged upwards of 60 years; the deaths of infants showed a marked decrease from the number in the preceding week, while the deaths of elderly persons had only slightly declined. Nine inquest cases and seven deaths from violence were registered, and 57, or more than three-eighths, of the deaths occurred in public institutions. The causes of eight, or more than 5 per cent., of the deaths in Dublin last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

Deputy Inspector-General of Hospitals and Fleets Robert Grant has been promoted to the rank of Inspector-General of Hospitals and Fleets in His Majesty's Fleet.

The following appointments are notified: Staff Surgeons: E. Corcoran to the *Magdala* and W. G. K. Barnes to the *Resolution*. Surgeons: J. F. M. McDougall to the *Harrier* and R. M. Richards to the *Wildfire*.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel William Wippell Pope retires on retired pay. Civil Surgeon Richard Chapman Wilson to be Lieutenant. Lieutenant P. H. Henderson is attached to the Station Hospital, Poona, for duty. Lieutenant-Colonel A. Young is selected for duty at Perth. Captain C. B. Lawson is posted to the Station Hospital, Western Heights, Dover, for duty. Major C. R. Elliott is appointed Sanitary Officer, Bombay Command. Lieutenant C. R. L. Ronayne, attached to the Station Hospital, Poona, proceeds to Ahmednagar for duty at the Station Hospital there. Captain C. T. Samman proceeds to Woolwich for duty. Lieutenant-Colonel J. Daniel Crowe, A.M.S. (retired), has been appointed to the medical charge of troops at Weymouth.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant H. L. de Legh to be Surgeon-Captain; Surgeon-Captain T. F. Dewar to be Surgeon-Major.

VOLUNTEER MEDICAL STAFF CORPS.

The Glasgow Companies: Surgeon-Lieutenant-Colonel Bruce Goff, retired, late 2nd Volunteer Battalion the Cameronians (Scottish Rifles) to be Honorary Commander.

IMPERIAL YEOMANRY.

Unattached: Temporary Captain F. A. Hadley resigns his commission.

VOLUNTEER CORPS.

Rifle: 2nd Volunteer Battalion the Queen's (Royal West Surrey Regiment: Captain and Honorary Major Francis Rutherford Russell, retired, to be Surgeon-Major. 2nd Volunteer Battalion the King's Own (Royal Lancaster Regiment): Bertram Whewell Hogarth to be Surgeon-Lieutenant. 1st Volunteer Battalion the King's (Liverpool Regiment): Surgeon-Lieutenant K. W. Monsarrat to be Surgeon-Captain. 1st Volunteer Battalion the Duke of Cornwall's Light Infantry: Francis Chown to be Surgeon-Lieutenant. 1st Cinque Ports: Surgeon-Lieutenant H. J. Holman to be Surgeon-Captain. 4th (Nottinghamshire) Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment): Surgeon-Lieutenant W. T. Crawford to be Surgeon-Captain. 2nd Volunteer Battalion the Manchester Regiment: Surgeon-Lieutenant F. H. Westmacott to be Surgeon-Captain. 2nd Volunteer Battalion the Durham Light Infantry: Thomas Hillhouse Livingstone to be Surgeon-Lieutenant. 2nd (Renfrewshire) Volunteer Battalion Princess Louise's (Argyll and Sutherland Highlanders): Surgeon-Captain A. Donald resigns his commissisn; Surgeon-Lieutenant H. C. Donald to be Surgeon-Captain.

SOUTH AFRICAN WAR NOTES.

Civil Surgeon Wilbond is reported to be improving (June 24th).

Civil Surgeon H. O. Baker has been discharged from hospital to duty.

Civil Surgeons Pridmore, Martine, Weir, and Walker are on passage home.

Colonel Kilkelly, C.M.G., Grenadier Guards, reports that on May 29th, there remained in the Imperial Yeomanry Hospital, Pretoria, 38 officers and 338 non-commissioned officers and men. The total admissions to the hospital since the date of opening number 4258; of these 922 were out-patients. Enteric fever and dysentery still prevail.

AFFAIRS IN SOUTH AFRICA.

There is nothing of a very important or striking character to be chronicled from the seat of war. Despite of the raiding that continues on the part of the Boers the process of attrition is *steadily but surely continuing also.* Lord Kitchener, telegraphing from Pretoria, stated that since his last despatch the columns had reported 41 Boers killed, 27 wounded, 160 prisoners, 70 surrenders, 41,800 rounds of small arms ammunition and 264 wagons captured, besides horses and stock. The slowness of the operations recently reported from South Africa has given rise to the impression that the reinforcements, especially of a mounted kind, are inadequate. Be this as it may, it is impossible to doubt that the vast extent of country that has to be guarded and over which the operations extend, the splitting up and dispersal of the Boers into numerous small bodies, and the enormous number of prisoners, women and children committed to our charge and requiring to be treated in accordance with modern ideas of humanity and philanthropy, make up a formidable as well as a very costly undertaking—amounting to a weekly expenditure of some million and a quarter. While many people at home are declaiming against the evils of camps of concentration and our inhumanity, independent military critics who have been present at the seat of war are, on the other hand, astonished at the humane consideration, amounting as they think to weakness, with which this war has been waged. Madame Alice Bron, in her "Diary of a Nurse in South Africa," has a very different story to tell and gives a very different picture of the Boers to that presented by their friends and encomiasts in this country and abroad. There is no denying the fact that the army medical officers who have served in South Africa are, as we have said, dissatisfied and disappointed with the adverse criticism to which they have been exposed on the part of a number of irresponsible people who were simply incompetent to form anything like a correct estimate of the situation or of the excellent professional and administrative work which was done during this campaign—and generally under the most difficult and trying circumstances. Nor, it must be admitted, are speeches like that delivered by Dr. R. Craig Dun on the occasion of a dinner recently given by the profession in Liverpool to the civil surgeons lately returned from active service in South Africa calculated to allay this feeling. We take our account from a report which appeared in the *Times* of June 21st. Dr. Dun's experiences in the field appear to have been the very opposite of those obtained by some of the most eminent hospital surgeons of this country and contrary to the conclusions arrived at by the South African Hospitals Commission But Dr. Dun, a civilian volunteer surgeon, has no hesitation and apparently entertains no misgiving in regard to his views. He has the courage of his opinions and is equally ready to disparage the army hospitals and to condemn the field medical system which has been tried, adopted, and pursued by every other European military power as well as by ourselves. The army is seemingly in future wars to be for the hospitals and not the hospitals for the army. The British soldier is notoriously a very courageous man and not easily daunted, but he must have food and ammunition to be of any service, and he does not find these on the veldt like manna from heaven. Any alleged breakdown of the hospital system that might have occurred at Bloemfontein was due to the fact that Lord Roberts had to provide his troops with these essentials and to take up at all hazards all the transport for this purpose. Who doubts for a moment that, being in supreme command of the army in the field, he was perfectly justified in what he did and that he would not hesitate to do the same again to-morrow under similar circumstances, and had he boldly said so and declared that the responsibility was solely and entirely his who can doubt that he would have had the nation at his back? Be that as it may, here is what Dr. Dun is reported in the *Times* to have said:—

> Dr. R. Craig Dun described the relation of the civil medical officer to the Army Medical Corps Referring to the absence of equipment for troops going out, he said that the medical department of the War Office had no idea of the magnitude of the work before it. He denounced the field hospital system, by which the sick and wounded had to be carried about for three weeks and live on rations served out to the Army Service Corps. He compared the military hospitals with the civil hospitals in South Africa much to the disparagement of the former. Speaking of the Ho[illegible] to civil surgeons as a roaring [illegible] and quite rightly so, because [illegible] general public at home to beli[illegible] had said was true. It was mu[illegible] though as a matter of fact it w[illegible] issued a private report to members of the House of Commons, and someone had told him that the Commission fully realised what the state of affairs in South Africa was, and that it was the intention of the country to see that such a state of affairs did not occur again

Our Liverpool correspondent gives his account of the speech in another column, but does not represent Dr. Dun as alluding to any "private report" of the Hospitals Commission. We are in a position to state emphatically that no such report was made.

NAVAL AND MILITARY CONCERT.

A grand naval and military concert under the patronage of the King and the Queen will be held at the Crystal Palace in aid of service charities on Saturday afternoon, July 6th, at 3 P.M., for the benefit of the following funds:—The Soldiers' and Sailors' Families Association, the Royal Naval Fund, the Soldiers' Daugters Home, the Royal School for Daughters of Officers of the Army, the Royal School for Naval and Marine Officers' Daughters, the Soldiers' and Sailors' Help Society, Lady Lansdowne's Officers' Families Fund, the National Memorial Gordon Boys' Home, Lady Dudley's Fund for Invalid Officers and Nurses, and the Central British Red Cross Committee. Tickets for reserved and numbered seats are one guinea and half-a-guinea respectively and include admission to the Palace. They may be obtained from the honorary secretary and treasurer, Mrs. Ronalds, 7, Cadogan-place, or from any of the usual libraries and ticket agencies. Extra fast trains will be run on the day in question and a special display of fireworks will be given in the evening. As a musical event the concert, with the massed bands of 20 regiments numbering over 600 picked musicians, will be a novelty. Full particulars of the programme will be announced in a few days Miss Margaret Macintyre, Miss Marie Brema, Mr. Ben Davies, Mr. Santley, and Signor Ancona have kindly promised their assistance.

DEATHS IN THE SERVICES.

Lieutenant-Colonel George Lemon Walker, I.M.S., Professor of Medical Jurisprudence in the Medical College, Madras, recently, aged 52 years. He entered the Indian Medical Service in 1876, was promoted to surgeon-major in 1888, and to surgeon-lieutenant-colonel in 1896 He took part in the operations against the Rumpa rebels in 1879.

Correspondence.

"Audi alteram partem."

IODIDE OF POTASSIUM IN ASTHMATIC AFFECTIONS.

To the Editors of THE LANCET.

SIRS,—Since you did me the favour of publishing my brief communication on Iodide of Potassium in Asthmatic Affections[1] I have been corrected in one detail, of which it is proper that your readers should be informed. The remarkable experience—or rather experiment—of Principal Barclay in analysing a very complex prescription so as to bring out, in his own person, the special virtues of the iodide was (as I stated) a "cardinal fact" in my own experience and one carrying a lesson of considerable importance. I have since been informed that my "cardinal fact" is distinctly, though anonymously, set forth in the late Dr. P. M. Latham's works[2] and I am glad to acknowledge this, because in Dr. Latham's admirable language the moral and therapeutic lesson of the case stands out perhaps even better than in my short paragraph; only it does not appear that Dr. Latham was cognisant at first hand of the details, otherwise he would have known that there was nothing haphazard about the experiment (as is suggested), but that it was deliberately and persistently carried out upon my suggestion, conveyed through the Principal's regular medical advisers I mention this once more, not to claim any credit for it, but because I am still under the impression that Principal Barclay's case was probably the first in which a really well-grounded conviction was arrived at as to this particular action of the iodides, and it has become a historic *datum* of more or less importance.

I am, Sirs, yours faithfully,
W. T. GAIRDNER.

Edinburgh, June 25th, 1901.

UNBOILED *v.* BOILED MILK.

To the Editors of THE LANCET.

SIRS,—The practice of milk-boiling has been so strenuously urged, almost unanimously, by the profession, and has consequently become so general, that it is with some diffidence that I venture to raise the question of its wisdom. That raw milk may be contaminated by various bacilli—such as the bacillus tuberculosis, the bacillus typhosus, the bacillus diphtheriæ, the streptococcus scarlatinæ, and even, through the addition of polluted water, the bacillus enteritidis sporogenes and the bacillus coli communis—I fully admit. But are these evils so frequent and so fatal as to counterbalance the disadvantages arising from the diminution or destruction of the nutritive properties of milk which boiling undoubtedly produces? And the gravity of the case is increased when it is remembered that milk should be the staple food of the infant, the child, the aged, and the sick.

---

[1] THE LANCET, June 3rd, 1901, p. 1520
[2] New Sydenham Society's edition, vol. ii., p 513.

The occurrence of illness, epidemics, and death from the presence of extraneous poisons in "fresh" or raw milk is certain, but could not these be met by greater care, enforced by more severe penalties for neglect, and by stopping the supply of milk when disease occurs without habitually destroying the nutritive value of milk by artificial means? When railway accidents happen which maim and kill the advice tendered is not that travellers should stay at home, but that more stringent precautions should be taken to prevent such disasters. *And in the case of milk epidemics the remedy* should not be habitually to diminish or to destroy the nutritive value of the most valuable food we possess, looking to the number whom it concerns, but to require sufficient precautions regulated by efficient inspection at the source of supply. I maintain that even the accidental poisoning of milk is much less baneful to the community generally than the destruction of its nutritive qualities, which means for artificially-reared infants rickets, infantile scurvy, and tuberculous diseases and for the aged and the sick deficient nutrition. These sufferings are incalculable and often life-long, while those of epidemics are usually limited, owing to the care expended on their investigation by the medical officers of health.

That "fresh" or raw milk cannot be so deleterious an article of food as is asserted is proved beyond all question by the fact that during a period of 30 years in which I have had charge of the health of a very susceptible community—a great public school—I have had only four cases of typhoid fever, three cases of diphtheria (not one of which was occasioned by milk), and none of tuberculous disease, and yet the boys drink an enormous quantity of milk—so great that I have been censured by a member of the profession for the quantity I advocate and have secured for their welfare, which is never boiled and rarely warmed. In my daily practice outside the school I am perpetually asked by those who have children to rear whether the milk ought to be boiled and my invariable answer is in the negative. For, if there is one thing that is essential to the vigorous growth of children it is a plentiful allowance of milk. How children can be expected to develop on boiled milk and the constant restriction of sugar is beyond comprehension. It is clear to me that the educated, as well as the uneducated, public require to be taught—

1. That the nutritive value of milk is very largely diminished by boiling.

2. That this is true also of sterilised milk, which should therefore only be used for a short time in order to tide over a difficulty in the early artificial feeding of infants. The nature of the change produced by the heating of milk, and which is so deleterious, is not accurately ascertained, but I will produce an instance of its effect. Some time since I attended an infant who did not thrive and who was perpetually crying on the slightest movement. For this I was unable to account although I was answerable for its feeding. Because of its condition another opinion was sought and the child was declared to be syphilitic, so that mercury with chalk was prescribed, although, beyond doubt, no such taint existed in either parent. By-and-by, however, unmistakeable signs of infantile scurvy appeared, with the extreme pallor, the pain on movement of its lower limbs, the typical epiphyseal swellings of the lower ends of the tibiæ, and all the other symptoms so accurately described by Sir Thomas Barlow. It turned out that while I was responsible for the food a lady gossip was answerable for the milk-boiling, hence the result. As soon as this was rectified and anti-scorbutic food was administered the child began to thrive and rewarded the mother for the care bestowed.

3. That while milk contains all the essential ingredients for growth, as well as nourishment—viz., albumin, fat, sugar, salts, and water—it contains no starch. This addition to the infant's food which is so prevalent is most injurious to the welfare of the child. Until I can be convinced that the value of milk-boiling outweighs its defects I have but the advice to give to those who do me the honour to consult me—Don't! If ever the time should arrive that milk must be invariably boiled it should be done as soon as it leaves the cow's udder and before it is distributed. But, at present, the issues of boiled milk, as I have pointed out, are certain, those of unboiled milk are remote. The remedy for the disadvantages of "fresh" or raw milk is not wasteful destruction of its nutritive value by boiling, but the enforcement of efficient inspection of dairy cows, dairies, milkers, and dairy keepers who supply it wholesale and the ensuring of cleanliness also on the part of the retailer.

I am, Sirs, yours faithfully,
CLEMENT DUKES, M.D., F.R.C.P. Lond.

Rugby, June 14th, 1901.

"THE CONTAMINATION OF POST-OFFICES."

To the Editors of THE LANCET.

SIRS,—*Apropos* of your article in THE LANCET of June 22nd, p. 1794, on the "Contamination of Post-offices," I should be obliged if you could allow me a little space in which to point a moral from the action of the French Government. And *en passant* may I remind you that I sent you a marked copy of the *Telegraph Chronicle* some time back, in which I published a complete translation of Dr. Mignot's report and the decrees thereanent which M. Millerand had promulgated. In 1895 I tendered evidence to Lord Tweedmouth's Committee which was designed to prove an unduly high incidence of phthisis among certain classes of employés in the English Post-office. This evidence received considerable attention from THE LANCET and other medical journals. In reply to my contentions it was stated that my figures were unreliable and referred to damaged lives. This contention I combated, and after some years of further study of the matter I am still of opinion that the statistics I gathered gave a substantially accurate view of the mortality rate from phthisis in the British postal service. They showed that of every 100 deaths among sorting clerks and telegraphists during a period of 10 years 45 4 per cent. were due to phthisis. Following upon the notice attracted to the question in 1895 the Postmaster-General commenced the publication of some meagre statistics in his annual report, and has continued to give these statistics up to the present time. They are unclassified, and the whole of the varied occupations of the postal service are lumped together as though they were a single class performing identical work under identical conditions. But even these unsatisfactory figures give the following result: the total annual loss from phthisis during the year 1896 was 2·4 per 1000 living, in 1897 it was 1 9; in 1898 it was 1 9; and in 1899 it was 1·7. The figures refer to the established staff, every member of which is a carefully selected life and has passed a series of severe medical examinations before entry into the service. According to the Registrar-General's returns for the same years the loss among the general population from phthisis was 1 3 per 1000 living. It is unnecessary to remind readers of THE LANCET of the serious nature of this comparison. The loss among specially selected lives is considerably higher than among the general population, which includes the weak, the sick, and the rejected of the Post Office. In view of the gravity of these facts I have received permission to introduce the subject in the Section of State Medicine of the British Congress of Tuberculosis, and I trust that this will tend to bring into operation some such steps as have been adopted by the French Post-office. The English postal servants are not quite so helpless as your correspondent represents the French employés to be, and this may be the reason why the charity of the Postmaster-General has not yet reached them.

There is a curious coincidence in the fact that in the same issue of THE LANCET in which you record the generous action of the French Minister towards his minor employés you also publish a reply by Mr. Austen Chamberlain to Sir Walter Foster, M.P., in which he declines a return which would show the real loss from phthisis among the English postal staff. I have been using the best endeavours of a layman to draw attention to this matter for some six years; may I now hope that you will give me the useful support of the prestige and publicity of THE LANCET? Every life lost from a preventable disease is a wasted life. "If preventable, why not prevented?" said King Edward on a memorable occasion. One of the best fields in which to commence operations is among the 160,000 employés of the British Post-office. The measures adopted in France afford a useful example of what can be done.

I am, Sirs, yours faithfully,

Barnes, S.W., June 21st, 1901. CHARLES H. GARLAND.

OPTIC ATROPHY AND TABES DORSALIS.

To the Editors of THE LANCET.

SIRS,—There has to the best of my knowledge never been any theory which satisfactorily accounts for the fact that double optic atrophy coming on early in locomotor ataxia so frequently causes arrest of the disease, and in some cases even permanent improvement. I, therefore, venture to propound the following which I think will account for it in great part, if indeed it does not do so entirely.

The tabetic patient in consequence of failure of eyesight is forced to rely for all his movements more and more on his muscular sense, ordinary sensation, sense of localisation and coördination. He is, in fact, actively engaged in trying to restore the impairments and re-educate these senses every minute of the day when not asleep. The effects of coördinate [illegible] well known in [illegible] is compulsory [illegible] e same result, though in a more powerful manner, as it is continually being called into demand? And here, of course, the training is progressive, just as in the gymnastics and regulated and gradual exercises. I cannot recall to my mind any case of locomotor ataxia coming on in persons previously blind from other causes. My experience, of course, is very limited, but I think that statistics would show that the percentage of such is very small. If this is so, it adds a strong argument in favour of my theory. I trust that some neurologists of experience will be able to throw light on the subject and show whether the percentage just mentioned is small or not.—I am, Sirs, yours faithfully,

June 9th, 1901. EDGAR F. CYRIAX, M.B., Ch.B. Edin.

"LEGISLATION AGAINST NATIONAL INTEMPERANCE."

To the Editors of THE LANCET.

SIRS,—I have to thank my friend Dr. G. Archdall Reid for his letter published in THE LANCET of June 22nd, p. 1790. At last he makes his position clear. He founds his views on Galton not on Weismann, but the distinction is really one without a difference. Both contend for the non-transmissibility of "acquired" modifications or features. The only point of variation is that Galton arrives at his conclusion by one route, Weismann by another. Both views are pure speculations. Dr. Reid therefore bases his views, which are also speculations, on a like foundation. So far, therefore, when he contends that we who believe that acquired characters may be transmitted have no proof of our belief, he possesses no advantage over us. If one view (as a theory) is permissible, the other (as a theory) is equally so. But Dr. Reid thinks that the germ-plasm—assuming for the moment that the great divergence between germ and soma contended for by Galton and Weismann is a reality—can never be impressed by acquired characters. I ask him, therefore, in turn, how he knows this? The whole matter is one of explaining certain facts, and I may remind him that there are cases and facts which appear to be as explicable certainly on the theory of the transmission of acquired features as on that of natural selection. If any biologist will demonstrate that the germ-plasm is utterly independent of the body-plasm, then Galton's hypothesis may have a fair chance of passing into the region of demonstrated fact. As it is, I regard Darwin's "pangenetic" theory as a far more likely explanation of the reason of the germ being capable of reproducing parental features. Dr. Reid has over and over again made the assertion that naturalists have ransacked the animal and plant worlds without finding an instance of the transmission of acquired characters. He would have been more just and correct had he said that he really means that his theory is the only one that explains instances of transmission. In your own columns, Sirs, you have published cases (e.g., those of Dr. W. Duncan) which demand explanation. In *Nature* of a fortnight ago there is the case of the oysters given by Mr. J. M. Tabor. There is the case of the motmot's feathers alluded to by Darwin. There is the instance of Japanese fowls and their tail-feathers, also alluded to in *Nature* a week or two ago by Mr. J. M. Cunningham. I might multiply examples, but if Dr. Reid is in earnest in seeking material he will find no lack of such. The opinion that acquired features may be handed on is, to put the case very mildly, just as feasible an explanation of facts as the opposite view. Possibly Dr. Reid does not think the opinions of Mr. Herbert Spencer, Hertwig, Eimer, or Cunningham worth consideration; yet in biology these are names which carry weight and they are those of men opposed, on purely scientific considerations, to the idea that acquired features are never transmissible and that this view can explain no fact of inheritance. The long and the short of it is that Dr. Reid and his opponents are dealing with speculations pure and simple, and the one view is just as tenable as the other. Certain it is also that the one theory is not inconsistent with the other. Both may be correct and both have to be judged by the only safe criterion of any hypothesis—namely, that a good theory explains all the facts and is contrary to none. It has not yet, at least, been demonstrated that the theory that acquired characters may be handed on by processes of heredity is inconsistent with facts.

I am, Sirs, yours faithfully,

Edinburgh, June 22nd, 1901. ANDREW WILSON.

"THE SURGERY OF PREGNANCY AND LABOUR COMPLICATED WITH TUMOURS."

To the Editors of THE LANCET.

SIRS,—I have read with much interest the letters of Dr. G. E. Herman and Mr. Bland-Sutton and Dr. W. S. Playfair in THE LANCET of Feb. 16th and 23rd. Apart from any possible chance of being misunderstood may I add my contribution of opinion to those already expressed? The times are changed, but have the members of the profession who teach and practise gynæcology changed with them? If anyone interested will refer to Dr. Spencer's paper in the *British Medical Journal*, No. 1720, p. 1315, he will find an excellent then up-to-date account of the advantages attending the practice of obstetric physicians who performed major abdominal surgery. It is curious that a sort of general statement which appeared in the *Gynæcological Journal*, vol. ix., 1894, pp. 451–454, has left very little for anyone to add. Still, as in 1893, "Bartholomew's blocks the way." It is true that, fortunately, neither the reputation of the great hospital nor the sick poor suffer, as in the hands of the very competent staff the work done in abdominal surgery and gynæcology ranks with any other London hospital. In the excellent hospitals of Australasia and New Zealand are many gynæcologists, some of whom are physicians and some surgeons, who are worthy to be ranked with some of their brethren who are now in London, Liverpool, Manchester, and other large cities. So ere we decide one way or the other it is well to have all the facts clearly before us. May I add that I claim to practise what I teach—viz., the very great importance of always endeavouring to make a clear diagnosis before deciding to operate? True, the best men may make mistakes, but he who is "never wrong" has yet to be found.

During the past 20 or 25 years no branch of medical practice has made such great advances as gynæcology. This being granted, is it not natural that there may also exist certain differences of opinion between gentlemen who may have been influenced by their individual experiences and opportunities? For example, some operators are, as a matter of individual experience, advocates of the vaginal rather than the abdominal route for entering the peritoneal cavity. Some prefer to attack diseased renal organs from an incision directly over the kidney, others prefer generally to operate by opening the peritoneal cavity as in abdominal section. Some have, perhaps, abused oöphorectomy and not unfrequently removed one if not both healthy ovaries. At best the patient has to depend on the skill and experience of the gynæcologist whom she may be under, and on his part the operator must treat every case of pregnancy complicated by tumour upon no fixed operative basis but as the peculiar or special circumstances seem to require. No general rule will be found applicable to all cases of pregnancy complicated by a tumour.

I am, Sirs, yours faithfully,
A. D. Leith Napier.
Adelaide, S.A.

THE CASE OF SURGEON W. R. KNIGHTLEY, R.N.

To the Editors of The Lancet.

Sirs,—I beg to bring to your notice the action of the General Medical Council and the naval medical officer. To abuse the relationship between medical adviser and patient is most reprehensible, but I thought it was a maxim of English law that a subject should not be punished twice for the same offence. To mulct a man in £3000 damages in a civil court and then for the General Medical Council to take away his means of gaining a livelihood is to my mind certainly not justice tempered with mercy.

I am, Sirs, yours faithfully,
Fredk. W. Collingwood.
Wimpole-street, W., June 24th, 1901.

To the Editors of The Lancet.

Sirs,—The proceedings of the General Medical Council are always read with great interest. One turns, after the labours of the week, to the report in The Lancet with eagerness to note what progress has been made, and how that august body are upholding the honour and dignity of the profession. After the tremendous slap in the face administered to them by Mr. Chamberlain in the case of Dr. Irvine I really thought they would be more guarded as to the course they adopted towards any other sinner who might be so unfortunate as to come under censure, particularly a man holding a position in the navy and so more or less under the ægis and protection of the Government. But it appears that the General Medical Council are bent upon riding for a fall. I deduce this from the extraordinary decision arrived at in the case of Surgeon W. R. Knightley. Anything more unjust, oppressive, and arbitrary can hardly be imagined, and I am astonished at such unfair treatment, so vindictive and opposed to the principles of English law. However guilty the man was he has paid the penalty and should not be tried again for the same offence. A certain punishment has been meted out to him and the infliction of this ought certainly to have condoned the matter. The jury arrived at a decision and awarded a fine they considered would be sufficient penalty, but if that jury had known that as a consequence of their verdict the man's livelihood would be taken from him and that his pecuniary loss would far exceed the sum they in their wisdom fixed upon I am certain the amount would have been put at a far less sum. If the naval authorities take the same view of the matter it only remains for them to keep Surgeon Knightley in his position as surgeon on board H.M.S. *Harrier*. He may snap his fingers in the faces of the General Medical Council and they will be powerless to resent it. It is certainly time the profession had more Direct Representatives and both services should be represented on the Council, which is composed too much of teachers and consultants.

I am, Sirs, yours faithfully,
M.D.

⁂ We do not agree with our correspondents' strictures on the General Medical Council in this matter. It must be remembered that when a medical man abuses the position which his profession gives him by seducing a female patient he inflicts a terrible blow upon the honour of his calling—that very honour which the General Medical Council should be alert to maintain. Still, it is true that if the jury had realised the heavy penalty that the disciplinary body of the medical profession might later exact from Surgeon Knightley it is possible that they would have awarded less damages to the injured husband. We believe, however, that from a legal point of view damages are awarded as a *solatium* to the husband for his loss and not as a punishment to the person who deprives him of his wife. We do not think the naval authorities will be well advised to ignore Surgeon-Knightley's position. All candidates for commission in the naval medical service are required to be "registered under the Medical Acts in force," and it would be inconsistent to ask less from an officer with a commission than is demanded from those who aspire to a commission.—Ed. L.

"SUGAR-FREE MILK AS A FOOD FOR DIABETICS."

To the Editors of The Lancet.

Sirs,—I have read with great interest Dr. Robert Hutchison's article which appeared last week in The Lancet, advocating the use of a sugar-free milk as a food for diabetics. Dr. Hutchison removes the sugar from the milk by curdling with acetic acid and subsequently washing the curd. He then dissolves the casein in a little potash, afterwards adding cream and a little gelatin and saccharin. The product is then strained. It seems to me that this plan of preparation is unnecessarily elaborate in view of the fact that pure soluble casein is a commercial product. My firm, for example, make tons of perfectly pure casein from the best quality of English milk in the form of a fine white powder, perfectly soluble in water. In contains nearly 90 per cent. of casein along with milk salts. It is practically tasteless, and very cheap. Surely it would be simpler to use this casein directly instead of milk, dissolving a definite quantity in water and adding cream, gelatin, and a little saccharin in the manner suggested by Dr. Hutchison.

I am, Sirs, yours very truly,
Chas. Prideaux.
Motcombe, Dorset.

"HOSPITAL SUNDAY AND THE NATIONAL ANTI-VIVISECTION SOCIETY."

To the Editors of The Lancet.

Sirs,—Although in your attack upon me in The Lancet of June 22nd, p. 1771, you say of me "he may spare himself the trouble of writing two-column letters to us," I presume that you will allow me a modest corner in your paper for a few words in defence of myself. You say "the hospital authorities have a perfect right to subsidise their schools if they like." If that be so, why have we not an equal right to inform the public that they do so?

Our position is a perfectly proper one. We assert (1) that congregations on Hospital Sunday are asked to subscribe for the tending of the sick poor, and in the vast majority of churches are not informed that the education of medical students will in part be defrayed out of the funds into which their contributions are paid; (2) that as a fact the Mansion House Fund does pay the money so subscribed in the churches into the general funds of hospitals out of which general funds the subsidies to the schools are made; (3) that the clergy can ascertain these facts for themselves if they look at the published accounts of the hospitals; and (4) that it is quite unfair to hide these facts from those who give the money, and that if the clergy will not communicate them we are absolutely justified in taking the only means left us of imparting a knowledge of them to the congregations.

Next let me say that as regards the single specific inaccuracy you think you have discovered in my "Guide to the Charitable," the returns for 1899 were the last available when the last edition of the Guide was printed, and those returns contained Dr. C. Arkle's name in the relation to Charing Cross Hospital which the guide records. If Dr. Arkle be now, as you say, dead, the next edition corrected with the returns of 1900 (only recently published) will be as accurate as was the last. Lastly, I hope I may explain that I myself, and I imagine most reasonable anti-vivisectionists, would not refuse as a matter of conscience a benefit that might be assigned as to its discovery to vivisection. We need not refuse to use a drug because some industrious but irrelevant experiments have been made with it upon animals. We need not accept the hypothesis that the best way to find out the internal construction of an apple is to cut open an orange. And were all the extravagant claims of the vivisectors true, we are no more morally bound to reject benefits acquired by indefensible means than are the descendants of slave-holders bound to abandon wealth originally acquired by the detestable abomination of slavery.

I am, Sirs, yours faithfully,
Stephen Coleridge.
June 22nd, 1901.

METROPOLITAN HOSPITAL SUNDAY FUND.

The following is a continued record of some of the principal amounts that have been received in aid of the Fund up to the time of going to press on Thursday. The total sum then amounted to £36,000. At the corresponding period last year the total was £31,000:—

	£	s.	d.
Christ Church, Lancaster-gate (including additions) ...	1317	0	0
St. Michael's, Chester square (including an additional £5)	1233	0	0
St. Jude's, South Kensington	557	0	0
St. Paul's, Onslow-square	360	0	0
St. Paul's, Knightsbridge, with St. Mary's, Graham-street	291	0	0
St. George's, Hanover-square	252	0	0
St. Marylebone Parish Church	209	0	0
[illegible]	201	0	0
[illegible]	190	0	0
[illegible]	183	0	0
[illegible]	175	0	0
[illegible]	170	0	0
[illegible]	163	0	0
[illegible]	160	0	0
[illegible]	157	0	0
[illegible]	136	0	0
[illegible]	124	0	0
[illegible]	121	0	0
[illegible]	120	0	0
[illegible]	118	0	0
[illegible]	117	0	0
[illegible]	116	0	0
St. James's, Piccadilly	115	0	0
St. John's Presbyterian Church, Forest hill	115	0	0
[illegible]	114	0	0
[illegible]	108	0	0
[illegible]	102	0	0
St. Saviour's, Upper Chelsea	102	0	0
Regent's-square Presbyterian Church	101	0	0
Central-hill Baptist Chapel, Upper Norwood	100	0	0
"F. G. D."	100	0	0
St. John's Presbyterian Church, Kensington...	100	0	0
Anonymous	25	0	0
Mr Julian, senior	21	0	0
St. Saviour's, Southwark	32	0	0
St. John's, Sidcup	23	0	0
Kingston-on-Thames Parish Church	23	0	0
St. Stephen's, Westminster...	22	0	0
St. Stephen's Hampstead	20	0	0
Blackheath Wesleyan	20	0	0
St. Paul's, Forest hill	51	0	0
Great Warley Parish Church	24	0	0
St. Olave's, Woodberry Down	40	0	0
Brixton Unitarian	29	0	0
[illegible]	33	0	0
[illegible]	21	0	0
[illegible]	24	0	0
[illegible]	24	0	0
[illegible]	65	0	0
[illegible]	26	0	0
[illegible]	32	0	0
[illegible]	24	0	0
[illegible]	45	0	0
[illegible]	40	0	0
[illegible]	35	0	0
[illegible]	27	0	0
[illegible]	25	0	0
[illegible]	24	0	0
[illegible]	68	0	0
[illegible]	20	0	0
[illegible]	30	0	0
[illegible]	37	0	0
[illegible]	39	0	0
St. Mark's, Reigate	80	0	0
Christ's Church, Hornsey	53	0	0
"A. B C"	20	0	0
St. Michael's, Southfields	20	0	0
All Saints' and St. Augustine's, South Lambeth	21	0	0
St. Anselm's, Pinner	20	0	0
Keston Parish Church	23	0	0
Box outside Mansion House	37	0	0
St. James's, Clapton...	25	0	0
St. Stephen's, [illegible]	33	0	0
[illegible]	60	0	0
[illegible]	89	0	0
[illegible]	64	0	0
[illegible]	49	0	0
[illegible]	25	0	0
[illegible]	29	0	0
St. Paul's, Wimbledon Park	31	0	0
St. Anne's, Soho	61	0	0
All Saints', Notting Hill	43	0	0
[illegible]	21	0	0
[illegible]	35	0	0
[illegible]	23	0	0
[illegible]	68	0	0
[illegible]	20	0	0
[illegible]	33	0	0
[illegible]	28	0	0
[illegible]	76	0	0
[illegible]	21	0	0
[illegible]ster	33	0	0
[illegible]	80	0	0
St. Peter's and St. Paul's, Streatham	49	0	0
[illegible]	28	0	0
[illegible]	38	0	0
[illegible]	41	0	0
[illegible]	50	0	0
St. James's, [illegible]	54	0	0
[illegible]	48	0	0
[illegible]	65	0	0
[illegible]	41	0	0
[illegible]	26	0	0
[illegible]	24	0	0
St. Mark's, Lewisham	21	0	0
Christ Church and St. Barnabas', North Finchley	22	0	0
Carmelite Church, Kensington	30	0	0
[illegible]	20	0	0
[illegible]	92	0	0
[illegible]	50	0	0
St. Stephen's, Gloucester-road	99	0	0
[illegible]	60	0	0
[illegible]	24	0	0
[illegible]	68	0	0
[illegible]	25	0	0
[illegible]	70	0	0
[illegible]	25	0	0
[illegible]	61	0	0
[illegible]	63	0	0
[illegible]	50	0	0
[illegible]	94	0	0
[illegible]	70	0	0
[illegible]	54	0	0
[illegible]	68	0	0
[illegible]	51	0	0
[illegible]	21	0	0
[illegible]	60	0	0
[illegible]	84	0	0
[illegible]	41	0	0
[illegible]	30	0	0
Emmanuel, West Hampstead	38	0	0
Christ Church, Hampstead	30	0	0
All Saints', Clapham-park	35	0	0
[illegible]	77	0	0
[illegible]	45	0	0
[illegible]	36	0	0
[illegible]	22	0	0
[illegible]	24	0	0
[illegible]	32	0	0
[illegible]	33	0	0
[illegible]sleyan Churches	21	0	0
[illegible]	65	0	0
[illegible]	61	0	0
[illegible]	30	0	0

THE ROYAL UNIVERSITY OF IRELAND COMMISSION.

(From a Correspondent.)

After a long delay Mr. Arthur Balfour announced on June 20th to the House of Commons the names of the Commissioners, as well as the terms of reference, and from the criticism aroused in Ireland it is becoming apparent that this Commission, like so many similar inquiries, may only end in failure. In the first place, the terms of reference "to inquire into the present position of higher, general, and technical education outside Trinity College, Dublin, and to report as to what reforms, if any, are desirable in order to render that education adequate to the needs of the Irish people," are very peculiar. Imagine a Commission to inquire into higher education in England "outside Oxford and Cambridge," or of Scotland "outside Edinburgh University." It is, indeed, the play of *Hamlet* with Hamlet left out. This leaving out of Trinity College has caused intense indignation among the northern Presbyterians; it has failed to satisfy the Roman Catholics; a large number of the younger Trinity College men, who lament the rapidly falling number of their students, object to the exclusion of their College, as they hoped that evidence given before the Commission would have led to reforms and changes suited to the present age; and all true educationists feel that the recommendations of a Royal Commission on Irish University Education which excludes Trinity College will not be worth the paper on which they are printed. Then comes the practical question, Is the chairman (a Scots lawyer) at once to closure any witness who makes the slightest reference to Trinity College? When the Royal University of Ireland was established in the place of the Queen's University the following clause in the Act establishing it was passed:—

> In fixing the value and the number of the said several exhibitions, [illegible] the Senate shall have regard [illegible] the University of Dublin [illegible] in that University, to as

to avoid, as far as possible, any injury to the advancement of learning in that University and College.

This most remarkable provision really means that the education and the encouragement of education of five-sixths of the Irish people should be regulated by consideration for the privileges of Trinity College. How, then, can the Commissioners form any idea of the influence of this provision on the education of five-sixths of the people of Ireland without a knowledge of the finances of Trinity? Again, what does "general and technical education" mean? It is surely broad enough to include education of every description, and at the present moment is not the whole empire calling out for teaching of technical and commercial subjects? and yet there is not a single member of this Royal Commission with any special knowledge of either commercial or technical education. Then the constitution of the Commission is most extraordinary. Trinity College is to be carefully excluded from discussion, and yet the Vice-Chancellor of Dublin University (Mr. Justice Madden) and a Fellow and Tutor of Trinity College and a present member of the academic council of Dublin University (Mr. W. J. M. Starkie) are put on the Commission, in order apparently at once to prevent any chance reference which might be made to that College. It will be remembered that in addition to the large number of Royal University graduates there are also many old Queen's University men, and yet one of the most unfair features of this remarkable Commission is that among the 12 members there is not one to represent the graduates of the old Queen's or of the present Royal University graduates. As is well known to the public there is a marked cleavage of opinion in the Senate of the Royal University on the question of the solution of the Irish University problem. Two of the senators—Mr. Starkie (a Roman Catholic) and the Roman Catholic Bishop of Clonfert—both of them declared opponents of non-denominational education and of the Queen's Colleges are appointed members of this Commission, and not one single representative of those on the Senate who advocate the non-sectarian view of education has been selected. The method in which the various faculties are represented is also most peculiar. Literature is represented by seven members; law by two, including the chairman; general science by two; and medicine by one. The gentleman who is the medical commissioner is an examiner in the Royal University and he may find himself in an unenviable position, sitting in judgment, perhaps, on his colleagues. In appointing a Commission the Government might have adopted one of two courses; first, they could have selected men of recognised position in the educational world outside Ireland altogether, who had never committed themselves on this most vexed question, or they might have appointed a Commission with the various contending opinions fairly represented. They have taken neither course, but have appointed a Commission of whom it is openly stated in the Irish newspaper press that seven out of the twelve Commissioners are already pledged to a definite settlement of Irish University education before they have heard one word of evidence. It is, indeed, amusing to read the opinions of many of the Commissioners—in former public utterances—quoted now in the newspapers. On the other hand, the Government has made the serious mistake of appointing no representative of those who hold strong views on the subject. I have carefully avoided expressing any opinion as to what the final solution of Irish University education should be. One hoped to get light and truth out of the evidence presented by those examined at this Commission, but it is apparent that no solution of this admittedly thorny problem worth considering can be hoped for from a Commission on which the views of large numbers of the citizens of Ireland are not represented.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Decline of the Plague Epidemic.—The Escape of Rangoon.—Treatment of Plague in Bombay.—Relapsing Fever in Bombay.—Establishment of a Dental Surgery at Quetta.—Privilege Leave for China Officers.—Prosecution for Adulteration.—The Culpable Negligence of Native Chiefs during the Famine.

THE epidemic of plague throughout India continues to decline although this week's figures are larger by the inclusion of deaths in the Punjab which ought to have been returned in May. The deaths are rapidly going down in Bombay city and in the Presidency and at Karachi the outbreak has nearly subsided. At most other places previously affected there is a decline also, but in Belgaum the deaths have increased from 116 to 181 and I hear that several cases have unexpectedly occurred in Poona. This is ominous because it was at this period of the year that the previous severe recrudescence occurred in Poona. Calcutta is by no means free but the daily returns have come down to single figures.

I hear that a few weeks ago Rangoon had a very narrow escape of becoming infected. A coolie of low caste was permitted to land and to go to his destination, but the next day he was found with high fever and was removed to hospital with undoubted plague but he died on the following day. Apparently he has not left any infection behind him and Rangoon may be said to have had a lucky escape. The case, if correctly reported, suggests that sufficient care was not exercised in his examination, as at the time plague was raging severely in Calcutta and special precautions should have been taken on his arrival. I understand that a great display of police force accompanies the visits of the port health officer at his inspections, which is said to have a terrorising effect upon the native passengers. This was not formerly considered necessary, and if not really required is on several grounds undesirable.

A plan of treatment for plague now being advocated in Bombay consists in the internal administration of iodine terchloride. The chief enthusiast for this treatment publishes figures showing a recovery rate of 58·9 per cent. The experiments do not seem to have been carried out under scientific conditions.

A return issued by the accountant to the Corporation of Bombay shows the total plague expenditure for that city at over 50 lakhs of rupees. Relapsing fever continues rife in the city, where it has been regularly in existence since 1897. The type of the disease is said to have become more severe, and whereas formerly the mortality was between 10 and 20 per cent. it has now reached 50 per cent. I doubt this.

Government have sanctioned as an experiment the establishment of a dental surgery at Quetta for the benefit of British troops and also sanctioned a grant of 100 rupees a month for the purchase of materials.

90 days' privilege leave is sanctioned to all officers and subordinates, subject to military rules, reverting from field service in China. Such leave must be taken within a year, and it may be taken either from China or subsequently from India.

A very interesting case of prosecution for adulteration has recently occurred in Calcutta. A large ghee (clarified butter) merchant was convicted and fined. The evidence of Dr. Bedford was cited against that of Dr. Dutt, the municipal analyst, and the magistrate found practically that Dr. Bedford's analysis was not based on any accepted standard, and held that several of his conclusions were valueless. The judgment was a clever piece of dissection of scientific evidence.

The culpable negligence of certain native chiefs with regard to famine has been shown in the two states of Bundi and Indore. The agent in Rajputana wrote: "The Bundi durbar are slack and apathetic—they regard the mortality as inevitable." The people suffered terribly. The census showed that in 10 years the population in Bundi has decreased 42 per cent. Famine is mainly responsible for this, and the culpable neglect on the part of the chief and his durbar had much to account for the mortality. Again, in Indore the Maharajah himself peremptorily ordered the stoppage of all famine relief and further declined to permit any suspension of revenue. At the time his subjects were dying by hundreds and there was plenty of money in the treasury. After the mischief had been done His Highness yielded. The conduct of these two rulers was, to say the least, apathetic and discreditable to native rule. Fortunately, these two cases are exceptional.

June 8th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Banquet to Local Civil Surgeons who have served in South Africa.

MR. F. M. Aldred, Dr. T. T. Bark, Mr. W. B. Bennett, Dr. R. Craig Dun, Mr. A. M. Dodd, Dr. Arthur Evans, Mr. T. H. Moyles, Mr. J. Owen, Mr. E.

Roberts, Dr Arthur N Walker, and Dr J H Willett, who have served as civil surgeons with the forces in South Africa, were entertained to dinner at the Exchange Station Hotel on June 20th as a professional recognition of their services The chair was occupied by Mr Edgar A Browne, the President of the Liverpool Medical Institution, Sir William Mitchell Banks occupying the vice-chair The chairman, in proposing the health of "The Guests," paid a fitting tribute to their patriotism and self sacrifice and made a touching allusion to the late Mr. Edgar Smith who had succumbed to enteric fever The feature of the entertainment was the remarkable speech of Dr R Craig Dun, late of the 2nd Battalion of the Imperial Yeomanry, in reply to the toast of "The Guests" The gist of Dr Dun's speech was practically a vindication of Mr Burdett Coutts's charges of the breakdown of the Army Medical Department, which he attributed to "army regulations,' and not to any shortcomings on the part of the Royal Army Medical Corps who had done splendid work under the greatest possible difficulties In the face of the existing regulations he could not honestly advise any graduate in medicine to look to service in the army as a fair field for his energies There was great bustle among the hospitals in South Africa when it was known that the Commission was coming out He must say that the Commissioners were considerate—they always gave a hospital 48 hours' notice of their approaching visit The impression left among medical men at the front was that the Commission was "a roaring farce" But it was not The Commission came home and whitewashed the whole thing, and quite rightly It would have been a mistake for the public to have believed that everything Mr Burdett-Coutts said was true though it was true for all that In conclusion Dr Dun said that at present promotions in the Royal Army Medical Corps depended, not upon professional ability, but upon a man filling in his *return sheets accurately* The medical men at the front spent a great deal of their time in filling up return sheets He would relegate this clerical work to non commissioned officers He advocated a return to the older system of regimental surgeons as far preferable to the existing arrangements He also severely criticised the want of medical equipment for his corps at critical times Altogether Dr Dun does not appear to have been impressed with the fore thought of the army authorities

Hospital Saturday Fund Street Collection

The result of the street collection made by the ladies on behalf of the Hospital Saturday Fund on June 8th was disappointing The collection only realised £781 18*s* 4½*d*, as against £837 12*s* 4*d* last year It was fully expected that at least £1000 would have been obtained, as the weather was exceptionally favourable for the collection

Low Death rate in Liverpool

Dr E W Hope, the medical officer of health, had the satisfaction to inform the health committee that the death rate for the week ending June 15th was only 18 5 per 1000 of the population

The Birkenhead Guardians and Lady Doctors

The Birkenhead guardians have been accused of lack of chivalrous conduct towards the female sex by their recent action in the matter of the vacancy for the post of assistant medical officer to the Birkenhead workhouse hospital In reply to an advertisement inviting candidates to apply for the post two qualified ladies responded, both of whom were requested to attend the meeting of the board A male candidate was also invited to attend, but failed to do so leaving the two ladies in possession of the field Mr T R Bulley moved the appointment of Miss Eva M Call M B Glasg, one of the lady applicants, which was duly seconded An amendment was moved by Mr H Pooley

> That, as there had not been a large response to the board's advertisement, another advertisement should be issued and that the salary offered now should be £130 instead of £120 per annum.

He did not think the position was one for a woman, as the strain was very great and there were cases in the place with which a woman ought not to deal This amendment was carried by the casting vote of the chairman, with the result that an advertisement now appears in the medical press inviting applications for the post of "male assistant medical officer" It will be generally conceded that a male resident medical officer is more suitable for the appointment in question, but there can be no difference of opinion that the lady candidates have reason to complain of the action of the authorities in inviting them to apply for a post for which half the board considered them unsuitable The arguments adduced at the meeting ought to have been thrashed out prior to issuing the first advertisement—the ladies would not then have been placed in such a false position The action of the guardians was severely criticised by the local press, and deservedly so As a solace to the feelings of the lady candidates Mr Pooley was good enough to remark that "when the time arrived for appointing two doctors he would support the appointment of a woman for the female patients only '

A Mortuary for Birkenhead

An inquiry was held at the Birkenhead Town Hall on June 20th by Dr E P Manby, Local Government Board inspector, into an application by the Birkenhead corporation for powers to borrow £750 for the purpose of erecting a mortuary Evidence was adduced as to the necessity for the provision of a properly equipped mortuary by the borough coroner and several corporation officials It is satisfactory to find that the inspector was thoroughly in sympathy with the corporation and remarked that there was no doubt that a mortuary was needed in the borough

Liverpool Country Hospital for Chronic Diseases in Children

In March last an announcement was made by the chairman at the annual meeting of the subscribers to the Liverpool Country Hospital that a gentleman who desired to remain anonymous had made a generous offer to contribute £5000 towards the funds for the new hospital, which is to be erected at Heswall, at a cost of £20 000 The offer was conditional upon three other donations of a similar amount being forthcoming by June 30th The committee have endeavoured to comply with the condition imposed by the anonymous donor, but as yet the contributions have not reached the amount stipulated During the past three months £5000 in various sums have been promised The calls made upon the charitably disposed within the last few years for various philanthropic objects have been very great At the present time the appeal by the bishop of the diocese for funds to erect a cathedral has met with a response of £138 000 within a very short time and the fund presided over by the Lord Mayor for the erection of a memorial to her late Gracious Majesty has also been liberally responded to These calls upon the public liberality are likely to affect the hospitals, at the same time, it would be unfortunate if the generous offer to the Liverpool Children's Country Hospital were to lapse through non compliance with the stipulated conditions

The Maghull Epileptic Home Munificent Offer by Mr Alfred L Jones

The twelfth annual report of the committee stated that during the year 1900 81 males and 66 females were admitted, 21 patients had been discharged, and three had died, and on Dec 31st there remained in the home 69 males and 54 females *Land had been purchased for the purpose of* erecting a villa for first class patients and to provide accommodation for the nursing staff of the male department The building, roads and drainage were estimated to cost £5500 towards which the committee had funds in hand or promised amounting to £3500 leaving £2000 still to be provided A friend had generously promised £500 towards the cost of furnishing the villa, and another friend had intimated her willingness to furnish a suite of rooms A further expenditure of £360 would be involved in carrying out certain sanitary improvements Mr Alfred L Jones, in moving the adoption of the treasurer's statement, said that he felt the greatest sympathy with the efforts put forward by the committee, and he believed they wanted something like £10 000 to carry out the work properly He would consider it a very great pleasure if he were allowed to contribute £1000 provided they got the whole sum required within six months from the date of his offer If the response did not come he would willingly give half the amount The medical report is very satisfactory, but *it points out that* there were in the home epileptics who could plough, hoe, reap, milk cows make baskets, wash, iron, and cook—in fact, the homes were blocked by these trained cases who occupied the ground necessary for developing the faculties of the new patients It was worse than useless discharging them to their friends who could not find them employment

New Nurses' Home at St Helens

The new home for the district nurses of St Helens, the generous gift of Mr. and Mrs. W. W. Pilkington, was formally inaugurated on June 19th. The house, which is a most suitable one, was built by the late Mr. James Hill who left a legacy of £150 to the charity. There is ample room to increase the staff of nurses when the funds permit. In March last the institution was affiliated with the Queen Victoria Jubilee Institute, which it is expected will increase the efficiency of the work. The staff now consists of a sister superintendent and three fully-trained nurses. The rules are on the lines of the Queen Victoria Jubilee Institute. Three members of the Medical Society of St. Helens have been nominated as members of the committee.

June 25th.

WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

The Disinfection of Midwives.

IN many parts of Wales the woman who lays out the dead also follows the business of midwife, a combination of duties hardly conducive to the speedy recovery of the occupant of the lying-in room. Mr. G. H. Browne, the medical officer of health of Brynmawr, reports a case in which a woman died from puerperal fever; the clothes of the midwife were disinfected, but she subsequently laid out the dead body of her patient, thus re-infecting herself, and then attended and infected another woman. In at least one of the large urban districts in Glamorgan, upon a case of puerperal fever being reported, the ambulance is sent for the midwife in attendance and she is required not only to have her clothes passed through the steam disinfector but also to have a bath in the discharging block of the district hospital under the direct supervision of a nurse who sees that the woman's hands and arms are well soaked in a solution of perchloride of mercury.

A Coroner's Censure of a Quack.

The number of uncertified deaths in the colliery districts of South Wales compares favourably with the rest of England and Wales, and very favourably indeed with certain districts in the county of Durham and in other parts of the North of England. During 1900 only 1·1 per cent. of the total deaths were uncertified in the Rhondda Valley, 0·7 per cent. in Merthyr, and 0·5 per cent. in Aberdare, while in Jarrow the percentage was 5·3, and in South Shields it was 4·3. It must not be supposed, however, that either the quack or the bone-setter are unknown in South Wales. Occasionally they are very much in evidence and only narrowly escape being committed for manslaughter by a coroner's jury. Such an instance occurred recently at Ebbw Vale where an inquest was held upon a child, aged two years, who had died four weeks after receiving an injury to its leg. For about three weeks after the injury a local surgeon attended the child and he considered that it was progressing towards recovery. The child's father, however, was of a contrary opinion and consulted a man who, besides being a puddler and a painter, had inherited from his aunt a receipt for a "salve" which was said to be made of "olive oil, ground ivy, and elder leaf," but which was found upon examination to contain also sulphate of iron with traces of copper and lead ingredients which the puddler was unable to account for. A plaster of this unguent was placed over a small ulcer on the child's leg, and after a few days it died in a convulsion. Upon post-mortem examination the kidneys were found to be diseased and to this cause death was attributed. The coroner, in his direction to the jury, spoke in strong terms of the ignorant, conceited old quack whose only qualification was that he was a puddler and a painter, and whose ignorance in undertaking to treat a case requiring medical skill made him liable to be committed for manslaughter.

The Bath Guardians and Tuberculosis.

One of the most gratifying features in the crusade against tuberculosis is the desire which is being shown by boards of guardians to deal specially with cases of this disease both in the workhouses and among persons receiving outdoor relief. The Bath board recently appointed a special sub-committee to consider what steps should be taken in this direction and the report of the committee was presented to the board on June 19th. There are, it appears, at the present time seven patients suffering from pulmonary tuberculosis in the Bath workhouse and 22 others are in receipt of outdoor relief. The committee recommend that certain wards should be set apart for the isolation of the indoor cases and that a piece of land upon which shelters could be erected should be devoted to their use for open-air treatment. The board decided to discuss at a future date the committee's recommendations, which can hardly be characterised as extravagant, and there ought to be no difficulty in securing their adoption.

Homes for Inebriates.

The Glamorgan County Council have decided not to erect for the present a home for inebriates in the county but to make use of the institution about to be established by the Northampton County Council who will be paid for each patient received from Glamorgan the sum of 10*s.* 6*d.* in addition to the Government grant.

Isolation Hospital for Llandaff and Dinas Powis.

One portion of the Llandaff and Dinas Powis Rural Sanitary District adjoins the borough of Cardiff and another portion is close to Barry. Indeed, to a certain extent the rural district is sandwiched between these two towns, each of which possesses a well-equipped isolation hospital which might very well serve the needs of the rural district. For the past few years the Cardiff corporation have been willing to receive patients from the Llandaff district into the Cardiff sanatorium, but only at what was considered by the Llandaff Rural District Council the exorbitant charge of two guineas per patient weekly. Three months ago, therefore, the Llandaff council erected within their own district at a cost of £800 an iron hospital with accommodation for 10 patients, and they have further decided to expend the sum of £8500 upon permanent buildings. These will include an administrative block, laundry and disinfecting block, and two ward pavilions—one to accommodate 10 and the other four patients. When the scheme is completed there will thus be accommodation for 24 patients and it will be possible to treat three diseases simultaneously. The population of the rural district of Llandaff in 1891 was 18,539, with an average of five persons in each inhabited house; at the last census the population was 23,054, with an average of 4·8 persons per house.

The Bristol Guardians and the Home for Cripples.

For some years past the Bristol Board of Guardians has sent to the Orthopædic Hospital and Cripples' Home at Redlands a certain number of pauper children, for whom it was considered that the special treatment of the hospital would be beneficial. At the present time there are 13 of these children in the institution. The guardians have hitherto paid £13 yearly for each child, although the cost to the hospital has actually been £28. Upon an appeal from the hospital committee the payment has been increased to £20 per annum, an amount which has received the sanction of the Local Government Board.

Convalescent Home for Children at Weston super-Mare.

The annual meeting of the subscribers to the Weston-super-Mare Convalescent Home for Children was held on June 17th, when it was reported that during 1900 there were received into the institution 280 ailing children, of whom all but five returned to their homes either perfectly well or very considerably improved in health. The accounts of the home show that the adverse balance of £64 at the end of 1899 had increased to £125 at the end of 1900.

Wonford House Hospital for the Insane, near Exeter.

This institution celebrates its centenary this year. When it was opened on July 1st, 1801, there were, besides Bethlem Hospital and St. Luke's Hospital in London, only three public asylums in England—viz., the Manchester Lunatic Asylum the York Lunatic Hospital, and the Friends' Retreat in York. The annual report for 1900, which has just been issued, states that from July 1st, 1801, to Dec. 31st, 1900, there had been 2835 patients admitted, of whom 1245 had been discharged recovered and about 700 as relieved. During 1900 there were 167 patients admitted, the daily average number in the house being 131. The Commissioners in Lunacy in their report dated July 26th, 1900, mention that "the cost of maintenance in the hospital is £2 2*s.* 11*d.* weekly, and 65 of the patients pay less than these costs and 70 over it." The report goes on to say, "This hospital continues to do really charitable work and as long as this is the case we hope it will flourish more and more."

June 24th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Glasgow University.

THE University has settled down again to its usual routine after the excitement of the public celebrations A steadying influence on a large number of the medical students is the impending ordeal of the final examinations which will occupy the next three weeks or so The June meeting of the University Court was mainly occupied by matters of no great interest The secretary reported that a notice of assessment for inhabited house duty on the Bute and Randolph Halls had been received, and that the Edinburgh Court had decided to appeal against a similar assessment made on the MacEwan Hall. It was decided to take joint action against the assessments. A memorial was read from the University Staff Club—which consists of some of the professors, lecturers, and assistants—requesting the establishment in the University of a common room where members of the staff might meet for various purposes. After some discussion the memorial was remitted to the committee in charge of the question of University extension. The Rev. Professor Stewart, D D., has been appointed to represent the University on the Carnegie University Trust.

Glasgow Western Infirmary.

The directors have issued an appeal for funds to enable them to proceed with the erection and equipment of a new out-patient department. The matter has been urgent for some time, but in view of other claims on the public it has not been pressed. The interests alike of the staff, the medical school, and the patients do not, however, permit of further postponement. The sum required is £40,000, towards which subscriptions amounting to £20,000 have already been received, including £5000 from the Bellahouston trustees and £1000 from the Corporation of Glasgow. It is intended to provide the new dispensary with every equipment needed for the treatment of patients and for the clinical instruction of students.

Glasgow Water-supply.

Glasgow has for many years had reason to be proud of a water supply which has brought to the city so many sanitary and commercial advantages. The enterprise and public spirit which nearly 50 years ago secured an abundant supply of pure water from Loch Katrine was recognised by the opening of the works by Her late Majesty Queen Victoria It was no doubt at that time believed that ample provision had been made, not only for present wants, but also to meet the reasonable probabilities of the future. The Act of Parliament under which the Corporation of 1855 proceeded gave authority (1) to raise Loch Katrine four feet above its previous summer level and to draw it down three feet below this level, making seven feet in depth to which the loch could be drawn upon; (2) to take 50,000,000 gallons of water per day for the supply of the city and suburbs; and (3) to construct a line of aqueducts for conveying the water to the city—a distance of 34½ miles In 1885 the corporation deemed it advisable to obtain from Parliament more extended powers. These included permission (1) to raise Loch Katrine another five feet, thus giving a total of 12 feet free to be drawn upon; (2) to raise Loch Arklet 25 feet above its then level and to lead the water from this loch to Loch Katrine; (3) to take a further 60 000 000 gallons per day for the supply of the city and suburbs; and (4) to construct a duplicate line of aqueducts and service reservoir with lines of pipes to the city. These several undertakings have been in progress during the past 15 years and have now been brought to a successful completion. The new aqueduct is 23½ miles in length and is capable of discharging 70,000,000 gallons per day. The new reservoir has a water surface of 88 acres and a capacity of 700 000,000 gallons Added to the original reservoir this means that the two combined are capable of storing 24 days' supply at the rate of 50,000,000 gallons per day. The cost of the works has been £1,213,280 It is noteworthy that the water from Loch Katrine undergoes no filtration other than being made to pass through fine gauze netting with a view to separate coarse mechanical impurities, such as leaves, sticks, &c With a view to avoid pollution the corporation some years ago acquired at a cost of £17,000 the feuing rights of the whole drainage area of Lochs Katrine and Arklet and thus have power to prevent the erection of any houses or buildings in the district From what has been stated above it is obvious that the practical result of the works just completed is to double the water-supply of the city. Since the opening of the first aqueduct 42 years ago there has been an enormous extension of the city both in area and population For this and for a continuation of the same processes during many years it is calculated the new aqueduct and the undertakings associated with it secure a full and adequate supply of a natural water which in point of purity as well as in abundance is hardly susceptible of improvement.

The Sale of Poisons by Medical Men.

A meeting of medical practitioners was held in Glasgow on June 19th, to receive a report from the deputation recently sent to the General Medical Council in regard to the sale of poisons in open surgeries by assistants not qualified under the Pharmacy Act. It will be remembered that the Council declined to receive the deputation on the ground that it proposed to deal with questions still *sub judice* The deputation therefore had no report to make other than to repeat the decision of the Council as this was expressed in the statement made by Sir William Turner Dr. W Watson, who presided over the meeting and who was a member of the deputation, stated that the result of their action was in all respects satisfactory. They had succeeded, he considered, in getting the action of the Council into line with the law of the land and he felt certain that no charge similar to the one which gave rise to their action would ever again be brought against a member of the profession so long as he showed reasonable care in the management of his business. Professor Glaister, however, doubted if this consolatory conclusion was altogether justified The finding of the Council by no means showed that the question was finally settled, but rather indicated the probability of further developments. After some discussion it was decided to continue the committee with instructions to take action if circumstances rendered this necessary. The question was also referred to at a recent meeting of the Pharmaceutical Society in Edinburgh, when the chairman claimed that the General Medical Council had decided that any medical practitioner who habitually left an open surgery stocked with scheduled poisons in charge of an unqualified assistant was liable to be judged guilty of conduct infamous in a professional respect.

Glasgow Ophthalmic Institution.

A handsome stained-glass window has been presented to this institution by Dr. A Maitland Ramsay. At a meeting of the directors of the Glasgow Royal Infirmary and others Dr. James Kerr Love explained that the window was subscribed for by the members of Dr Ramsay's post-graduate class and was intended to express their appreciation of the good work done by Dr Ramsay In accepting the window on behalf of the directors, Mr. Hugh Brown, Chairman of the Ophthalmic Committee, thanked Dr. Ramsay for his gift and for the extended sphere of usefulness which the Ophthalmic Institution had acquired as a result of the post graduate courses which have been given during the past few winters.

June 25th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS)

National Association for the Prevention of Consumption and other Forms of Tuberculosis.

A MEETING of the executive committee of the Dublin branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis was recently held at the house of the Royal College of Physicians of Ireland Dr Lombe Atthill occupied the chair and there were also present Sir Christopher Nixon, Sir John William Moore Sir Charles Cameron, Professor Anthony Roche, Dr Alfred R Parsons, Mr F P. Fawcett, Dr Edmond J. McWeeney, Dr. James Craig, and Mr. J Knox Denham, honorary secretary The honorary secretary reported that the Local Government Board for Ireland had consented to have the large poster entitled "Information for Consumptive People and for Those who Live with Them" hung up in every workhouse, hospital, and dispensary waiting-room in Ireland Dr. Starkie, the Resident Commissioner of National Education for Ireland, had informed the honorary secretary that he would afford every facility for the giving of the course of lectures proposed by the association to be delivered to the King's scholars in the training colleges at Drumcondra, Marlborough-street, Kildare-street, and Baggot street. The names of the following gentlemen were suggested as lecturers to the King's scholars in the autumn: Dr. McWeeney, Dr. Craig, Dr. Parsons, and Professor Roche.

An Action for Damages.

It may interest some of the readers of THE LANCET to know that the action for damages brought by the son of the late Mr. Wheeler of Dublin, the well-known surgeon, against the Commissioners of Public Works in Ireland has been decided in his favour after appeal. It is now over a year since Mr. Wheeler's eye was seriously injured by an accident caused as alleged by the imperfect state of the ornamental iron railings in St. Stephen's Green Park. The commissioners pleaded that they were not the owners of the park and therefore were not liable. The Court of Queen's Bench decided against them and now after a delay of a year the Lords Justices of Appeal have by a majority supported that decision. The case is looked upon in Dublin as one of much interest and importance, and arrangements are now being made for an ultimate appeal to the House of Lords.

Royal Colleges of Physicians and Surgeons in Ireland.

A public announcement has appeared stating that material changes have been made in the course for the preliminary examination for the year 1902.

Armagh Sewerage.

At a special meeting of the Armagh Urban Council, held on June 19th, Mr. Kaye-Parry, consulting engineer, showed and explained sketch plans for a scheme for the treatment of 90 gallons of sewage per head per diem. The estimated cost was £4500, and adding £500 for a storm-water filter, the total cost of the works would be £5000 In this way they would have a scheme capable of treating three times as much as the former scheme which was only able to cope with 30 gallons of sewage matter per head per diem, while the English Local Government Board had laid it down that any disposal works should have as their minimum a capacity for the treatment of 90 gallons per head per diem, because 30 gallons was the average dry-weather flow, but in wet weather the flow was sometimes equal to as much as 100 gallons per head per diem; thus, any works the maximum capacity of which was 30 gallons would be quite inadequate. The Armagh Urban Council approved of this scheme and requested Mr. Kaye-Parry to prepare the plans as soon as possible.

Overcrowding in the Londonderry Asylum.

At a meeting of the committee of management of the Londonderry Asylum, held on June 21st, a report was received from the architect and medical superintendent in reference to their visit to Scotland to acquire information as to the selection of buildings and arrangements most likely to be suitable for the proposed extensions at Gransha. In reference to present wants, and with a view to future economy, the following schemes were suggested: (1) to build the two hospitals and infirmaries for male and female patients, 100 of each, and to use what would be the future female side for administration; (2) to build the male hospital and infirmary for 100 patients each, one of the villas to be used at present for administration; and (3) to build the male hospital and infirmary for 100 patients to the future administrative block of the asylum, and the parts of the administrative block not at present required for administrative purposes could be used for the temporary accommodation of a few more male patients. No. 1 scheme was recommended. The matter is to come up for consideration at the next meeting, some of the members being in favour of No. 1 scheme, while others think that the building should be deferred until after the consideration of the Local Government Board's recent circular anent workhouses.

Treatment of Chronic Harmless Lunatics.

The Limavady guardians having had under their consideration the circular issued by the Local Government Board in regard to the treatment and maintenance of chronic and harmless lunatics which was remitted to them from the Derry County Council decided at their meeting on June 24th to recommend the Asylum Committee to adopt the suggested course (No. 2) out of the difficulty, that is, to add, subject to the Lord Lieutenant's direction, by the erection of buildings less elaborate than the original ones, a new department to an existing asylum and to place it under the resident medical superintendent of that asylum. In this way a due measure of care and comfort would be preserved to the class of asylum inmates in question and at the same time the whole of the very inadequate grant in aid made by the Government in respect of all classes of the insane who are kept in immediate connexion with the county or district asylums would be retained.

June 25th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Law as to Workmen's Compensation for Accidents and Medical Aid.

OF late the Chamber of Deputies have been discussing anew the law as to compensation to workmen for accidents sustained whilst at work. A committee of the Chamber have proposed some alterations in Clause 4 of the law of 1898. The clause as amended runs thus:—any workman who sustains an injury may choose his own medical attendant and his own druggist, but in that case the employer shall not be held responsible for medical expenses and for drugs, dressings, or the like, to an extent greater than a sum which shall be fixed by the *juge de paix* of the parish in which the accident happened. This sum shall be arrived at in conformity with the rates adopted by the department for medical aid, or, if such do not exist, with the fees usually ruling in the neighbourhood. Also, if the injured man refuses the medical and pharmaceutical aid offered by the employer and chooses to go to hospital, the employer shall, in addition to the hospital expenses, only pay three quarters of the daily indemnity. The employer may, in certain cases laid down in preceding paragraphs, submit for the consent of the *juge de paix* the name of a medical man who shall certify monthly as to the condition of the injured workman. M. Poulain put forward an amendment as regards the right of the workman to choose his own medical man. He demanded guarantees in favour of medical men who are now always exploited by the assurance societies. He also asked for the insertion of a clause specifying that surgical operations when necessary should be paid for by the employer. There is no doubt that surgical operations should be paid for by the employer if they are the consequences of an accident.

Cyto-diagnosis in Cerebro-spinal Fluid from Cases of Mental Disorder.

M. Leglas and M. Nageotte reported to the Hospitals Medical Society at the meeting held on June 7th that they had examined the cerebro-spinal fluid from seven cases of early dementia and had found no lymphocytes in it. A chronic alcoholic, of feeble intellect, with delusions of grandeur and epileptiform attacks, was found to give a normal fluid. A syphilitic patient, aged 36 years, who 55 days previously to the examination had had his first epileptiform attack showed no lymphocytosis. On the other hand, five patients in whom before lumbar puncture was performed general paralysis had either been definitely diagnosed or was strongly suspected showed marked lymphocytosis. M. Joffroy said that in his opinion the interesting point from the practical side was to know whether lymphocytosis existed in the early stages of general paralysis. In asylums patients were hardly ever seen at an earlier stage of the disease than that of some months. In one instance, however, he had found lymphocytosis at a very early stage before there was either ocular trouble or defect of speech upon which to found a diagnosis. M. Dupré said that he had practised lumbar puncture in eight patients. In two general paralytics the results were positive. In six others—a case of senile dementia, a case of dementia due to a central lesion, a case of very early dementia, and in three cases of melancholia with delirium—the results were negative. M. Nageotte said that ill-effects followed those operations where there was a small quantity of fluid and where the results were negative. M. Widal said that, as a rule, it was better not to take more than three, or at the very most six, cubic centimetres of fluid. After the operation the patient should lie down in bed for the rest of the day with the head low. Fine and very sharp needles should be used so as not to make a large hole in the dura mater, so that there was less chance of the fluid escaping on withdrawal of the needle. When these precautions were taken M. Widal's patients sometimes complained of a little nausea, but in the majority of cases they felt no inconvenience. M Widal thought that the smallest chronic lesion of the meninges could bring about lymphocytosis, but the *méningisme* of Dupré could be observed without lymphocytosis, as M. Widal had recently demonstrated in a case of typhoid fever.

Infantile Mortality in France.

At the meeting of the Academy of Medicine held on June 10th M. Budin gave an account of an inquiry into the above subject undertaken by M. Gillette of St Joseph and M. Ballestre. This inquiry showed that the mortality in France of infants under one year of age had attained appalling proportions In Paris the rate was 145 for every 1000 deaths; at Rouen, 254; at Lille, 294; at Dunkirk, 342; and at St Pol, 509. The mean mortality for all the towns in France was 167. As before this mortality could be remedied the cause must be known, the inquiry showed that of 1000 deaths in infants under one year of age, taking all the towns together, 389 were due to diarrhœa, 147 to pulmonary affections, 171 to congenital feeble health, 24 to tuberculosis, and 50 to contagious diseases. Diarrhœa was by far the most important factor and caused in Paris 380 deaths per 1000, while in Rouen and Nantes the rate rose to over 500 and at Troyes to 682 The monthly curve of diarrhœa mortality showed a marked rise during the hot months and a fall during the cold weather This diarrhœa, although so fatal, could be avoided by care. In the infants' department which M. Budin had started at the clinic of the faculty diarrhœa had completely disappeared This excellent result had encouraged the formation of similar departments, and at those under the care of M. Variot, M de Rothschild, and M. Dubrisay equally good results had been obtained Pulmonary affections also accounted for a very little number of infantile deaths, but instead of being in the summer their chief incidence fell in the winter Congenital feeble health could too be combated by appropriate care, and M. Budin had succeeded in greatly reducing the mortality in his wards for such cases. The whole inquiry showed that a large number of these deaths were preventable. One remarkable fact is the variation shown by different departments The rate varies from the lowest to one nearly double. If all the deaths of young children in France were added together the total would reach the enormous figure of 30,000 per annum—that is to say, 15,000 soldiers less in 20 years time. Most of these deaths could be prevented if the means indicated by the investigators were made use of.

The Drink Question

Since the passing of the new regulations on "drinks," the consumption of wine in Paris has gone up by 20 or 25 per cent It is to be feared, moreover, that the consumption of alcohol is not less than before the measures of reform were undertaken. The remission of the octroi has coincided with an extremely bountiful wine crop, and the price of wine has therefore fallen some 50 per cent. The working man, therefore, who used to drink half a litre with his meal now drinks a litre. Should prices rise his habits will have become fixed; he will not reduce his allowance and will consequently spend more than he did before the new regulations were in force. Official statistics for the first four months of 1901 show that the quantity of wine consumed is 17,000,000 hectolitres as against 10,000,000 hectolitres for the corresponding period of last year.

June 25th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

"*Typhoid Fever in Rome*"

THE Municipal Medical Officer of Health of Rome, Professor Gualdi, has published a work with the above title which is of more than local interest, dealing as it does with the incidence and etiology of a disease so universal in its distribution as typhoid fever. It appears from a careful comparison of statistics that, in spite of the great improvements which have been undoubtedly effected in the sanitation of the large cities of Italy, and especially of the city of Rome, during the last quarter of a century, no great diminution is noticeable in the prevalence of typhoid fever in any of them. No trustworthy statistics on this head are available for Rome itself previously to the year 1876, but it is probable that the proportion of cases to population in the past year is little different from what it was in those days, while compared with some of the intervening years last year's figures come out distinctly unfavourably. Taking the statistics in regard to typhoid fever in Rome subsequently to 1876 we find that a period of low mortality occurred in 1882, since which time the returns show a continual alternation of improvement and aggravation, the rises and falls each being spread over periods of several years' duration. Examining each year separately it will be seen that the disease has two seasons of maximum intensity—one in the winter and spring, during which it assumes an endemic sporadic character, and one in the summer and autumn, when it becomes endemic in type. The transition between the two, both in the rise and the fall, takes place with great regularity The maximum generally occurs in October and the minimum usually in April, the regularity of the periods of recurrence being more marked in the morbidity than in the mortality tables One looks with interest to see whether there are indications that one quarter of the city is more affected than another, but the division into wards is so artificial as to create a difficulty in arriving at any definite conclusion upon this point The incidence of the disease varies also from year to year, a ward which has escaped one season perhaps suffering heavily the next It is not possible, therefore, to speak of any particular ward as being specially liable, nor of any other as being particularly immune On the whole, over an average of years, the disease affected most severely those wards of the city in which new streets of badly constructed houses were rapidly run up during the time of the building speculation mania The influx of workmen at that period was contemporaneous with an increase in the amount of typhoid fever in the city—an increase which continued for several years (1884–89). From 1889 onwards the disease again diminished until it reached a minimum in 1897, again to recrudesce, however, and to attain another maximum in the three following years, without any special cause that is apparent. The explanation, according to Professor Gualdi, is to be found in a number of different factors, amongst others in the overcrowding of the poor in the new quarters of the town and in the importation of typhoid fever patients with the numerous workpeople who come to the surrounding Campagna at that season. The possibility of a contamination of the water-supply, to which many attributed the outbreaks, was investigated with great care, but it was found impossible to establish any such connexion. The sources, the aqueducts, the pipes, the reservoirs, and the water itself, were all minutely examined and always with negative results. It was natural that suspicion should fall upon the Acqua Paola on account of its origin (the Lake of Bracciano) and the fact that the part of the city chiefly supplied by that source—namely, the Trastevere—had a heavy contingent of typhoid fever patients. But it must be remembered that there is a traditional prejudice against this source which renders the people of that quarter averse to its use for drinking purposes The Acqua Marcia and the Acqua Vergine (Trevi) must be regarded as above suspicion for numerous reasons; nor in the various palaces, monasteries, and barracks supplied by the Acqua Felice was there any special prevalence of the disease that could lead to suspicion of that water. The reservoirs in the houses must likewise be acquitted of blame since the outbreaks did not occur in a way which such a source of infection would satisfactorily explain According to Professor Gualdi the disease may be transmitted in three different ways: (*a*) by direct contagion from sick to healthy; (*b*) by infection from food-stuffs; and (*c*) by means of the environment Direct contagion he believes to be frequent, but it occurs more often in the houses of the Campagna A brief visit to a typhoid fever patient is sufficient, he thinks, to transmit infection. The food stuffs most under suspicion are milk and vegetables, and to the former, the sale of which is in the hands of three or four monopolists in Rome who mix it, he attributes a large share in the spreading of infection. The vegetables grown locally are irrigated and washed with the water from the sewers in a restricted suburban zone between Via Nomentana and Via Tiburtina, and this, he thinks, accounts for the frequency of typhoid fever in the San Lorenzo and Nomentana quarters and on the Esquiline. Finally, some houses, the dirty and overcrowded especially, act as a hotbed for the disease, nursing its germs during each winter and sending them forth in fresh vigour every autumn, the infection being possibly in relation with some saprophytic phase in the existence of Eberth's bacillus and the germ escaping detection in its ectogenous condition. When inhaled by man in dust or ingested with food or drink its pathogenic effects are once more manifested, and the disease is again spread by direct contagion or otherwise.

June 23rd.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Immigrants Suffering from Tuberculosis not to be Admitted.

AN order of the United States Superintendent of Immigration, T. V. Powderly, declares that tuberculosis of the lungs is to be considered a "dangerous contagious disease." Heretofore immigrants having tuberculosis have been admitted unless the disease was in an advanced stage; when they were deported it was because they were apt to become public charges, the contagious nature of the disease not being considered. The new ruling makes the deportation of all persons having tuberculosis of the lungs compulsory. It will involve a more strict examination of immigrants at Ellis Island and the steamship companies will have to make examinations in Europe before accepting steerage passengers. About two months ago the Marine Hospital was asked by the Superintendent of Immigration if tuberculosis of the lungs was to be classed as a contagious disease; the ruling made was that the disease was considered a chronic contagious disease. The ruling was unsatisfactory, as if immigrants were deported under it contests might follow. The law says that an immigrant is to be deported who suffers from a "loathsome or dangerous contagious disease." Under the former ruling immigrants who had tuberculosis of the lungs had to be barred as likely to become public charges. Many were so barred, and though no contests followed it was felt that a more explicit order should be given. Hence, Commissioner Fritchie asked for a more specific statement. The ruling now submitted by the marine hospital service is that tuberculosis of the lungs is considered a dangerous contagious disease, and in accordance with that decision the Superintendent of Immigration has made his order. Dr. G. W. Stoner, head of the medical division of the Immigration Department, states that previously to this rule the percentage of reported cases of tuberculosis has been small. Heretofore, these persons have been placed in the category of contagious or chronic contagious and been referred to a special board of inquiry. As a rule the persons afflicted with this disease were deported on the ground that they were likely soon to become public charges, but many exceptions were made in favour of the sufferer if he or she had a family here who guaranteed the invalid's protection and care. Before the new ruling the board decided which invalid should be deported. This discrimination is now denied it, for deportation is made mandatory; this reduces the action of the board to a mere form. Dr. Stoner added that the majority of cases of tuberculosis came from the larger cities of Norway, Sweden, and the North Sea countries. Dr. Alvah H. Doty, the State health officer and sanitary inspector of the port, says that although the principle of the order is right he believes that it will be impossible for the health officers of this port to put it into execution Often 4000 emigrants land here in a single day; it is difficult at a glance to detect consumption except in advanced stages, and an adequate examination would therefore compel the retention of these thousands for weeks. A cursory examination, on the other hand, would be useless. He believes that cases of consumption should be kept out by examination of emigrants at the point of embarkation where the work can be done thoroughly. This method would also prevent the contact of cases of tuberculosis with other emigrants in the steerage. Dr Doty urges that the first step in the carrying-out of the new order should be taken by the inspecting officers at the great ports from which our immigrants come. While not opposed to federal regulations they do not affect him as a State officer and as such he will not attempt to bar out cases of tuberculosis. Officers of steamship lines assumed that the new order would not result in many deportations because consumptive emigrants are not allowed to embark when the disease is detected. The agent of the American line said that medical inspectors are at present so careful in their examination of emigrants sailing for this country that but few cases of tuberculosis escape them; hence the number deported from this port has been small, consumption being the cause, so that the new order will not have much significance. The rate of deportations had been considerably less than 1 per cent. At the office of the Hamburg-American line it was said that the new clause relating to the admission of immigrants of weak physique sufficiently covered those afflicted with tuberculosis. Greater precautionary methods will be observed in the inspections in Holland, but it is not likely that there will be any great reduction in the number of immigrants entering this port, owing to the enforcement of the new order. This line brings into this country about 50,000 persons a year, of whom about 800, or a little more than 1 per cent., show symptoms of consumption in the examination made at Ellis Island; most of these are Jews from Russia, Galicia, and the Balkan States. The agent insisted that the Hamburg-American line took every precaution to prevent the embarkation of cases of tuberculosis; their hospitals and physicians were intended mostly for persons not afflicted with organic diseases; it is not often that application is made to this line for transportation for a patient suffering from tuberculosis.

Government Regulation of Vice in the Philippines strongly Opposed by Women.

Through the influence brought to bear upon the authorities at Washington by women belonging to the United States Temperance Association the army canteen was abolished some time ago. This step was taken in face of the advice tendered to the contrary by army officers of all grades competent by experience to have a good knowledge of the situation. It is now declared that the action on the part of the Government has produced most unfortunate results, has led to increased drunkenness and the widespread prevalence of venereal diseases. So much, indeed, has this been the case that it is proposed that methods for the regulation of vice, somewhat on the model of the British Army Contagious Diseases Act, should be introduced into the Philippines. On June 6th, at the morning meeting of the American Medical Association in St. Paul, Minnesota, two prominent lady members of the United States National Women's Suffrage Association, Miss Susan B. Anthony and the Rev. Anna H. Shaw, protested against the proposed legislation to suppress vice in the Philippines. The Rev. Anna Shaw, in the course of her remarks, said: "When we undertake to regulate and segregate vice in the Philippines it is impossible that we shall not regulate and segregate vice at home. Under our army system parts of the forces are kept in the Philippines and part at home. Then later on they will be changed. If vice is essential in the army and has to be regulated it will have to be regulated both at home and abroad. England has tried the regulation of vice and abandoned it as unsuccessful. France regulates vice and is the most vice-ridden country in Europe." In reply to the speeches of Miss Anthony and the Rev. Anna Shaw Major Louis Seaman, an ex-surgeon in the United States Volunteers, who read a powerfully written paper at the recent meeting of American army surgeons showing that the abolition of the army canteen had been responsible for increased drunkenness and vice of every description among soldiers, urged that the suggested legislation was the best possible remedy for the existing condition of affairs and its enforcement was strongly indicated in the Philippines. When, however, Major Seaman referred to the women speakers as those misguided enthusiasts and declared that they had brought about such a condition by the results of their agitation, the uproar which ensued was so great that he was unable to proceed, and Dr. Reed, the President, prevented any further discussion by announcing the next order of business. There can be no doubt that the views set forth by Major Seaman are thoroughly endorsed by the great majority of American army surgeons. This fact was clearly demonstrated by the resolutions passed at the meeting of the army surgeons some two or three weeks ago to the effect that the meeting was in agreement with Major Seaman, and furthermore resolved that a copy of these resolutions should be sent to each member of the Women's Temperance Association, to whose efforts was due the abolition of the army canteen. It would appear, too, as if the greater number of the members of the American Medical Association sympathised with the proposed adoption of legislative measures to suppress vice in the Philippines but were to some extent restrained from giving expression to their opinions by the presence of Miss Anthony and the Rev. Anna Shaw. No action in the matter was taken by the convention, but it is probable, if the feminine influence—which carries much weight in this country—does not prove too strong, that Government regulation of vice will be put into practice in the Philippines.

June 17th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Vital Statistics of New South Wales for 1900.

IN spite of the occurrence of the plague the records of the Government statist for New South Wales for the year 1900 show a distinct decrease in mortality and an increase in population. The total deaths numbered 15.118 in 1900, 15,901 in 1899, and 16,661 in 1898. The following table gives some details :—

Deaths from—	1898.	1899.	1900
Measles	609	209	9
Scarlet fever	83	25	9
Influenza	329	360	197
Whooping-cough	241	487	106
Diphtheria	169	60	63
Diarrhœa	625	468	447
Intemperance	122	126	88
Rheumatic fever	74	87	49
Epilepsy	107	133	90
Convulsions	433	443	380
Bronchitis	777	641	609
Pneumonia	973	927	787
Pleurisy	127	116	81
Croup	86	39	25
Suicide	165	185	145
Totals	4820	4316	2985

In some of the diseases more generally connected with childhood the shrinkage was very noticeable indeed, and in those of the respiratory system the falling-off was almost equally striking. There were, however, increases in other directions. The 104 deaths from plague wholly represented an increase and amongst the preventable diseases the 398 deaths from typhoid fever showed an increase of 51. From old age, apoplexy, syncope, diseases of the digestive organs, and heart disease there was also a greater mortality; cancer carried off 765 victims, an increase of four; and phthisis 1077, an increase of eight. The 50 cases of murder and manslaughter showed an increase of 12, while accidents claimed 992, an increase of 110. Privation was the cause of 25 deaths, a decrease of two.

Health of Sydney.

The first quarterly report for the year 1901 on the health of Sydney submitted to the Water and Sewerage Board by its medical officer, Mr. T. Mailler Kendall, stated that the deaths from general causes were less than in the corresponding period of last year. There had been a decrease in the mortality from diarrhœa and typhoid fever and an increase in that from phthisis and diphtheria. The general sanitary condition had improved and the mortality from preventable disease had diminished in areas of the metropolis formerly insanitary, probably from improved legislation.

Hospitals for the Insane in Victoria.

The Master in Lunacy in Victoria has submitted a special report on the treatment of the insane in that State. He points out that Victoria is much behind New South Wales in its hospitals for the insane. Though there are fewer lunatics in New South Wales that State spends more on their housing and maintenance, the asylums are larger and better equipped, and they are built on the most approved modern plans for the classification of patients, and there is a receiving house for doubtful cases which has existed for 30 years. In Victoria the hospitals are very overcrowded and accommodation for another 600 patients is urgently demanded. A receiving house and a separate hospital for paying patients are also wanted. Dr. McOreery, inspector-general of hospitals for the insane, is in entire agreement with the Master in Lunacy and has pointed out the urgent necessity for reforms for years past, but no notice has been taken by the responsible Minister of the day. A new wing, capable of accommodating 100 patients, has just been opened at the Ballarat Asylum, and another ward of like dimensions will be opened in September. These will relieve the metropolitan asylums to some extent. Dr. McOreery also claims that the percentage of cures effected is better than is believed, being as follows:—1899: Victoria 44 44, New South Wales 42 96 England 39 26; 1900: Victoria 40 09, New South Wales 38 88.

Claim against a Dentist.

A patient recently brought an action against a Sydney dentist for £200 damages for injuries received through the alleged negligent and unskilful manner in which he had made, set, and adjusted certain artificial teeth The chief damage alleged was that the irritation of the badly fitting teeth had originated a cancer of the jaw. The judge said that he was of opinion that the work was of a defective character, but he was doubtful whether he ought to allow damages for more than the amount which the plaintiff had paid for the work. On the whole, however, the balance of evidence was in favour of the view that the cancer was the result of the careless work of the defendant and the judge found for the plaintiff for the amount of £50.

May 17th.

Obituary.

FRANCIS WILLIAM WARRINGTON, M.D. ST. AND., M R.C.S. ENG., L.S A., J.P.

DR. F. W. WARRINGTON was a fine example of the old school of family practitioner and his death is a great loss to Congleton, where he had been in practice for nearly 40 years, and also to the surrounding neighbourhood, for he was well known and esteemed over a considerable portion of the county. Dr. Warrington was born in 1839 and was the son of a respected Mayor of Congleton who held office for several years. He was educated at Longnor School in Staffordshire, a well-known academy in those days, and at Plymouth Grove, Manchester. After his pupilage at the North Stafford Infirmary he entered as a student at King's College Hospital, where he afterwards filled the positions of assistant house physician and resident accoucheur. He obtained the L S.A. diploma in 1861 and the M.R.C.S. Eng. and the M D. St. Andrews in 1862, commencing practice in his native town shortly afterwards. His undoubted skill and ability, together with his sound appreciation of human nature, stood him in good stead and enabled him to establish the very large practice which he carried on until his death, always endeavouring to keep abreast of the times. His sympathetic and noble nature gained for him the warmest affection of his patients and he was trusted and held in high esteem by his professional brethren. Dr. Warrington was remarkable for his untiring energy and the physical and mental work accomplished by him at times would have been an impossibility to most people He was strongly attached to his profession, and his medical friends, who are very numerous, will always delight to linger on the remembrance of his graphic and humorous descriptions of incidents in his medical career. Many live to mourn the death, for he was a man of wide sympathies and a generous benefactor, no story of real sorrow or distress ever being unheeded by him.

DAVID CHARLES DAVIDSON, L.R.C.P., L R C.S. EDIN.,

LIEUTENANT-COLONEL, I.M.S.

THE death of this officer in his fiftieth year took place on May 2nd, 1901, after a long and severe illness, the result of overwork and the effects of the climate of India. After qualifying in Edinburgh he held various hospital appointments in England, amongst them being that of surgeon to the Dorset County Hospital and surgeon to the Birkenhead Hospital. In 1887 he entered the Indian Medical Service and proceeded to India in the following year. After a short period of military duty with the 14th Native Infantry and the 3rd Bombay Light Infantry he was appointed to act as civil surgeon of Shikarpur, and had charge of a large jail with over 1000 prisoners. While superintending the construction of a large portion of the Scinde railway he became a victim to Scinde fever and he came to England to recruit his health. On his return to India he was appointed to the civil surgeoncy of Kaira in Guzerat and subsequently acted as health officer to the Bombay municipality. In 1886 he was ordered to Burmah on field service, where he had charge of a base hospital for native troops. In 1888 he went to Satara as civil surgeon and did some good work at the civil hospital there. While there he added, with the sanction of the Government, a new wing to the building. In 1891 and 1892 he acted as superintendent of Mahableshwar.

In 1894 he was appointed senior surgeon and professor of surgery in the Sir Jamsetjee Jejeebhoy Hospital and lecturer in the Grant Medical College. A year later he was appointed civil surgeon of Dharwar. In 1896, after three months' furlough in England, he was recalled to India for service in connexion with plague and famine work. He was appointed surgeon to the Goculdas Tejpal Hospital in Bombay, but his health breaking down he again obtained furlough. He returned to India as superintendent of Mahableshwar. Colonel Davidson did good work there and at other places in connexion with the plague although he was in constantly failing health. In December of last year he became seriously ill and left India on furlough in March, but after reaching England he only survived 20 days. The deceased officer leaves a widow, three sons, and several daughters.

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—In June, 1901, the following candidates passed in the subjects indicated:—

Surgery.—C. H. G. Atkyns, Birmingham; H. de T. Barber (Section I.), Geneva and St. Mary's Hospital; F. J. Birks (Sections I. and II.), Sheffield; E. Courtauld (Sections I. and II.), Royal Free Hospital; W. Garstang (Sections I. and II.) and W. Hickey (Section I.), Manchester; H. C. Hocken (Section I.), Cambridge and Westminster Hospital; D. T. Jones, Middlesex Hospital; R. A. Jones (Section II.), St. Mary's Hospital; D. E. Lockwood (Section I.) and F. M. Payne (Section I.), Royal Free Hospital; B. B. Sansom (Section I.), St. Thomas's Hospital; H. H. Sloane (Section I.), St. Bartholomew's Hospital; H. Smith (Section II.), Birmingham; A. W. D. Thomson, St. George's Hospital; and L. G. W. Tyndall, St. Mary's Hospital.

Medicine.—C. H. G. Atkyns, Birmingham; F. J. Birks (Sections I. and II.), Sheffield; E. Courtauld (Sections I. and II.), Royal Free Hospital; E. N. de V. Dawson (Section II.), St. Thomas's Hospital; J. J. Haverson, London Hospital; W. Hickey (Section II.), Manchester; W. J. Hogg (Sections I. and II.), Belfast and Middlesex Hospital; R. A. Jones (Section II.), St. Mary's Hospital; E. O. Libbey, Leeds; D. Morrow (Sections I. and II.), Middlesex Hospital; A. U. Parkhurst, St. Mary's Hospital; H. H. Sloane (Section I.), St. Bartholomew's Hospital; H. Smith (Sections I. and II.), Birmingham; W. A. Sugden, St. Mary's Hospital; and J. Ward (Sections I. and II.), Sheffield.

Forensic Medicine.—C. H. G. Atkyns, Birmingham; F. J. Birks, Sheffield; J. W. Bowd, St. Bartholomew's Hospital; E. Courtauld, Royal Free Hospital; J. J. Haverson, London Hospital; W. J. Hogg, Belfast and Middlesex Hospital; E. O. Libbey, Leeds; D. Morrow, Middlesex Hospital; A. U. Parkhurst, St. Mary's Hospital; and J. Ward, Sheffield.

Midwifery.—J. W. Bowd, St. Bartholomew's Hospital; E. C. Curtis, Aberdeen and Charing-cross Hospital; E. A. Dunn, Royal Free Hospital; A. E. Henton, St. Mary's Hospital; W. Hickey, Manchester; G. M. Seagrove, St. Bartholomew's Hospital; and A. H. Thomas, St. Mary's Hospital.

The diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery:—C. H. G. Atkyns, J. W. Bowd, E. Courtauld, W. Garstang, J. J. Haverson, W. J. Hogg, D. T. Jones, R. A. Jones, A. U. Parkhurst, A. H. Thomas, L. G. W. Tyndall, and J. Ward.

UNIVERSITY OF CAMBRIDGE.—At the examinations for medical and surgical degrees, Easter term, the following candidates were successful in the subjects indicated:—

THIRD EXAMINATION.

Part I.—F. H. M. A. Beckett, B.A., H. Selwyn; L. Bousfield, B.A., Pembroke; A. P. Bowler, B.A., Sidney Sussex; J. Bradford, B.A., Emmanuel; A. S. Bradley, B.A., Caius; H. C. Brown, B.A., Emmanuel; G. V. Bull, B.A., Caius; C. Burroughs, B.A., Emmanuel; F. R. Carroll, B.A., Trinity; E. L. Claxton, B.A., and G. D. Franklin, B.A., King's; J. C. W. Graham, B.A., Trinity; G. S. Graham-Smith, B.A., Pembroke; E. H. Harrisson, B.A., Clare; E. F. G. T. Heap, B.A., Sidney Sussex; J. P. Headley, B.A., and H. T. Hodgkin, B.A., King's; A. C. Hudson, B.A., and H. L. P. Hulbert, M.A., Trinity; W. W. Jeudwine, B.A., H. Selwyn; A. P. Laycock, B.A., St. John's; G. E. Loveday, B.A., Caius; J. M'Bryde, B.A., King's; D. J. Morgan, B.A., St. John's; A. E. Naish, B.A., and S. Nathan, M.A., Trinity; C. de C. Pellier, M.A., Clare; D. [illegible] us; J. W. Rob, B.A., St. John's; A. R. Rool [illegible] Rolfe, B.A., Clare; F. Sanger, B.A., St. [illegible] B.A., Corpus Christi; C. H. Sedgwick, B.A., Sidney Sussex; F. E. Shipway, B.A., Christ's; A. M. Simpson, B.A., King's; J. E. B. Snell, B.A., B. Spearman, B.A., and R. Spearman, B.A., Caius; G. L. Tuck, B.A., Emmanuel; H. Wacher, B.A., St. John's; G. H. L. Whale, B.A., Jesus; J. Wharton, B.A., St. John's; G. R. Wilson, B.A., Trinity; H. M. Wilson, B.A., Trinity Hall; and F. E. Wood, B.A., Downing.

Part II.—A. P. M. Anderson, B.A., Trinity; A. H. Brehaut, B.A., H. Selwyn; A. R. M. Brenan, B.A., Trinity; J. M. Brydone, Jesus; A. E. Carver, B.A., Clare; F. J. Child, M.A., Christ's; J. S. Clarke, M.A., Caius; L. S. Gaskell, M.A., Christ's; C. H. Glenn, B.A., Pembroke; J. A. Glover, B.A., St. John's; H. Gordon-Smith, B.A., Trinity; A. W. Greig, B.A., Jesus; M. C. Hayward, M.A., Caius; A. E. Hodder, B.A., King's; A. C. Ingram, B.A., St. John's; A. S. Mellor, B.A., King's; C. H. Miller, B.A., Trinity; F. E. Murray, B.A., St. John's; G. H. Orton, B.A., J. C. S. Rashleigh, M.A., and L. Reynolds, B.A., Trinity; H. H. Riddle, B.A., Peterhouse; R. D. Smedley, B.A., Pembroke; A. E. Taylor, B.A., Downing; N. F. Ticehurst, M.A., Clare; J. L. Timmins, B.A., Emmanuel; W. E. Tucker, Caius; F. K. Weaver, B.A., Trinity; and R. F. Williams, B.A., Caius.

During the academical year just closed 20 candidates were admitted to the M.D. degree, one to the M.C., 50 to the M.B., and 61 to the B.C.

UNIVERSITY OF BRUSSELS: JUNE EXAMINATION.—The following practitioners passed and obtained the M.D. degree:—

L. Harris-Liston, Exeter; G. H. Lancashire, Didsbury; H. C. Procter (Honours), Ladysmith, Natal; E. F. Lamport (Honours), London; E. Haslam (Honours), London; and T. B. Haig, London.

FOREIGN UNIVERSITY INTELLIGENCE.—*Berlin*: Dr. Arthur Nicolaier of Göttingen has been recognised as *privat-docent* of Internal Medicine and Dr. Johann Friedenthal as *privat-docent* of Physiology.—*Bordeaux*: Dr. Bégouin has been appointed *professeur agrégé* of Surgery and Dr. Andérodias *professeur agrégé* of Midwifery.—*Breslau*: Dr. H. Sachs, *privat-docent* of Neurology, has been promoted to an Extraordinary Professorship.—*Erlangen*: Dr. Graser, Professor of Surgery in Rostock, has been offered the chair vacated by the death of Dr. von Heineke.—*Groningen*: Dr. Huizinger, Professor of Physiology, is retiring. Dr. Hamburger of Utrecht has been appointed to succeed him.—*Halle*: Dr. Gebhardt has been recognised as *privat-docent* of Anatomy.—*Iurieff* (*Dorpat*): Dr. A. N. Solovieff of Moscow has been appointed to the chair of Midwifery. Dr. Gubareff of Moscow has been appointed Extraordinary Professor of Midwifery and Children's Diseases.—*Leyden*: Dr. van Walsen has been appointed Professor of Pathological Anatomy.—*Lille*: Dr. Lambert has been appointed *professeur agrégé* of Surgery.—*Lyons*: Dr. Villard and Dr. Tixier have been appointed *professeurs agrégés* of Surgery, and Dr. Fabre *professeur agrégé* of Midwifery.—*Montpellier*: Dr. Jeanbrau has been appointed *professeur agrégé* of Surgery.—*Moscow*: Dr. Gulevich of Kharkoff has been appointed Extraordinary Professor of Medical Chemistry. Dr. Karusin has been appointed Professor of Descriptive Anatomy.—*Nancy*: Dr. Michel has been appointed *professeur agrégé* of Surgery.—*Paris*: Dr. Photinos Panas has been obliged to give up his chair of Ophthalmology on account of the state of his health. Dr. Lapersonne of Lille has been appointed to succeed him. Dr. Marion, Dr. Gosset, and Dr. Auvray have been appointed *professeurs agrégés* of Surgery, and Dr. Demelin and Dr. Potocki *professeurs agrégés* of Midwifery.—*Prague* (*Bohemian University*): Dr. Heinrich Chalupecky has been recognised as *privat-docent* of Ophthalmology.

A CENTENARIAN.—It is stated that Mrs. Priest, who died at Bath on June 20th, had attained the age of 104 years and 10 months. The deceased had had 10 children, of whom three sons served in the Crimean war, and there are living 34 grand-children and nearly a dozen great-grandchildren.

QUALIFICATIONS OF SANITARY INSPECTORS.—At a recent meeting of the St. Germans (Cornwall) District Council a candidate was selected for the post of sanitary inspector who did not possess any certificate of sanitary knowledge. At the meeting of the council held on June 20th it was, however, resolved that the question of the appointment should be reconsidered and a certificated sanitary inspector appointed.

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.—It is stated that Dr. Isambard Owen has been asked to succeed the late Professor J. Viriamu Jones as principal of the University College of South Wales and Monmouthshire.

IN MEMORIAM, QUEEN VICTORIA.—Towards the fund to be raised for completing the Preston and County of Lancaster Royal Infirmary as a memorial to the late Queen Mr. Richard Calvert, cotton-spinner, of Preston, has promised £5000.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—A numerous gathering of the members of the above society and their friends assembled to hear the Cavendish Lecture on "Acute Cardiac Failure," which was delivered by Sir Richard Douglas Powell at the Town Hall, Hammersmith, on June 21st. The lecture, which is published at p 1811 of our present issue, was followed by a conversazione in the large hall where were exhibited various medical and surgical novelties by well-known firms.

CHARING CROSS HOSPITAL.—Professor Clifford Allbutt, in his address to the students of the Charing Cross Hospital Medical School on the occasion of the presentation of prizes on June 26th, referred in the course of his remarks to the disastrous effect of extinguishing the natural curiosity born with every man to inquire into the nature of things. He also improved the opportunity by administering a crushing answer to those who have sought to discredit the hospitals by saying that patients were experimented upon by the physicians in attendance. An apt quotation from Hobbes and a singularly lucid explanation of the scientific methods of teaching medicine at the present time concluded a most interesting and earnest address which was greatly appreciated by the numerous company assembled at the Charing Cross Hospital Medical School.

CONVERSAZIONE OF THE WORSHIPFUL SOCIETY OF APOTHECARIES OF LONDON.—A conversazione was held in the Apothecaries' Hall, Water-lane, on June 26th when a very distinguished company was present to witness the many scientific exhibits displayed and to listen to the excellent programme of music that was provided. The visitors were received by the Master, Mr. Charles Browne, with whom were the wardens, Mr. T. E. Burton Brown and Mr. William Parson, and the clerk, Mr. James Richard Upton. In the Wheeler room a very excellent series of natural colour photographs were shown upon the screen by Mr E. Sanger-Shepherd, who is the author of the process, while in the large hall there was a demonstration of wireless telegraphy, and in other rooms various electrical phenomena were illustrated and the electrophone was in working order so that the visitors could hear the various entertainments going on in London.

PAST AND PRESENT WEST LONDON HOSPITAL DINNER —The great success that has attended the work of the post-graduate school attached to the West London Hospital was the occasion of much congratulation and rejoicing at the Past and Present West London Hospital dinner held at the Empire Rooms, Trocadéro, Piccadilly-circus, London, W., on June 25th. The chairman, Mr. F. Swinford Edwards, was well supported in numbers, and speaking to the toast of "The West London Hospital" pointed out how well suited the hospital was to supply the wants and necessities of the post-graduate school Since 1896 over 270 men had gone through the school and the financial position resulting from the school's success was so satisfactory that new buildings were in progress. It was very pleasant to hear the reply to this toast from Mr. A. Hubbard, J.P., one of the executive committee of the hospital, and it was quite evident that there was no want of harmony between the medical staff and the hospital management. Mr. L. A. Bidwell proposed "The Post-Graduates" and ascribed the popularity of the school to the fact that the medical men attending were not shown a collection of rare cases but saw every-day practice. The members of the West London post-graduate course enjoyed the advantages of studying in the wards of a hospital and also assisted at operations.

Parliamentary Intelligence.

HOUSE OF COMMONS.

THURSDAY, JUNE 20TH.

The Examination of Invalided Soldiers

Sir ELLIOTT LEES asked the Secretary of State for War whether he was aware that officers and men invalided home by medical boards at [illegible] and the taxpayers, orders could be given that all patients about to undergo operations in England should be sent home with as little delay as possible, and whether in all cases the number of medical boards before which invalided officers and men had to pass prior to being sent home could be reduced —Mr BRODRICK replied I am not aware that persons invalided home are examined by more than one board except in cases where the patient on his way to the coast develops further illness and has to undergo examination with a view to the extension of his sick leave The information at my disposal tends to show that patients are not detained unnecessarily at Wynberg I will, however, draw the attention of the Commander-in Chief in South Africa to the points raised by the question with a view to his taking such action as may be deemed necessary.

The Army Medical Department.

Captain NORTON asked the Secretary of State for War whether, in view of the fact that there was at the head of the Army Medical Department at the present time only an Acting Director General shortly about to retire from the service, he would say when a new Director-General would be appointed —Mr. BRODRICK replied No; I can make no statement on this subject. Various measures for the reorganisation of the Medical Department are in progress.

Medical Officers of Health in Scotland

[illegible] but as the medical men did not possess the statutory qualifications the appointments were not in terms of the Public Health Acts and were not recognised by the Local Government Board.

FRIDAY, JUNE 21ST

Fish Culture.

Mr GERALD BALFOUR President of the Board of Trade, announced that he proposes to appoint a departmental committee "to inquire and [illegible]"

TUESDAY, JUNE 25TH

Admission of Disease from Abroad.

Sir HOWARD VINCENT asked the President of the Local Government Board (1) if his attention had been called to the fact that all aliens suffering from dangerous contagious diseases were excluded from admission to the United States under the Immigration Laws of Con- [illegible] regards cholera cases the regulations required the isolation in hospital [illegible] regulations [illegible]

Typhoid Fever among the Troops

Lord STANLEY, in reply to Sir WALTER FOSTER, said that for the four weeks ended April 26th the approximate number of admissions among the troops in South Africa for typhoid fever was 1484 and the number of deaths 187

WEDNESDAY, JUNE 26TH.

[illegible]

Beer Bill.

This Bill also was referred to the Standing Committee on Law. It divides beer into two classes—"malt beer" which is defined as beer brewed from barley malt with the addition only of hops, yeast, and water, and "part malt beer," defined as any beer other than "malt beer"—and it provides for the two classes being labeled so that the public may distinguish between them The Bill is strongly opposed and is not likely to be passed during the present session.

ROYAL COMMISSION ON ARSENICAL POISONING.

THURSDAY, JUNE 20TH.

THE Commission held a meeting for the examination of witnesses in the Westminster Palace Hotel, London. Lord KELVIN occupied the chair, and the other members of the Commission present were Sir William Church, Sir W. Hart-Dyke, M P., Professor Thorpe, Dr. B A. Whitelegge, and Mr. Cosmo Bonsor, with Dr. G. S Buchanan, of the Local Government Board, secretary.

Mr. CLARE SEWELL READ, ex-member of Parliament and ex-secretary of the Local Government Board, said that he had been appointed along with Mr. Henry Stopes to give evidence on behalf of the Central Chamber of Agriculture. He had been engaged in farming for 60 years, but he had no practical acquaintance with either malting or brewing He did not consider that sugar in beer was necessarily injurious to health, but in his opinion some of the glucoses used were injurious. He was a member of the Beer Materials Committee, and his view was that if the minority report of that body had been adopted it was quite possible that the recent beer-poisoning epidemic might have been averted. For one thing there would have been proper supervision of the materials from which beer was made. As for the present action of the Somerset House authorities, while it was a very good safeguard for the revenue, it was a very poor safeguard for the public health. He endorsed the recommendation of the Select Committee of the House of Commons for the appointment of a court of reference. Such a court should be composed of competent experts and sound business men, and its duty would be to fix standards of purity and decide other points arising out of the Sale of Food and Drugs Acts. It was perfectly ridiculous to ask a farmer for a guarantee that his barley was free from arsenic, and if he were a maltster he should simply guarantee that he had used good fuel, and if a hop-grower that he had exercised all due care in the growth and curing of his hops. Some of the gentlemen who gave evidence at the inquiry of the Manchester Central Brewers' Association also gave evidence before the Beer Materials Committee. When they gave the latter evidence they said—and they convinced the majority of the committee—that there were no ingredients which were harmful to health used in brewing, whereas in this later investigation they seemed to believe that almost every ingredient used in brewing was more or less poisonous It seemed to him just this—that they could prove anything when they liked and nothing when they desired to do so. The effect upon farmers of these scientific scares, which mostly proved to be wrong, was that when there was a really good and sound scientific discovery they were very slow to believe it and that was bad for farmers and the country generally. He was chairman of the Adulteration Committee upon whose report the Sale of Food and Drugs Act, 1875, was founded. The committee wished to bring beer into that Act but they found that they could not do so because there was no legal definition of beer. Asked whether he would propose a definition of beer witness said that he advocated the passing of the Beer Bill now before the House of Commons. It was true that the Bill was not a pure-beer Bill, but it had a declaration and a definition of what beer should be and he thought that it would have been disrespectful to this Royal Commission if the promoters of the Bill had attempted to legislate on the question of arsenic in beer. In connexion with the drawing up of the report of the Adulteration Committee on which the Sale of Food and Drugs Act was founded they felt it very difficult to define adulteration. They decided that an article of the nature, substance, and quality demanded by the customer should be given and he believed that, generally speaking, this had proved a successful definition. He had had a considerable experience in investigating sewage farming, for he was appointed to a departmental committee which inquired into all the systems of sewage farming pursued in Great Britain and on the continent. The most filthy substances were used for the purposes of irrigation, not in but over the soil and very frequently over the different vegetables and the grass, and he never heard of any disorder or poisoning happen from stock eating the vegetables or the grass or from the milk of the stock. He hoped that this Commission would report in favour of some such measure as the Beer Bill He should like to see more diligent supervision exercised over the ingredients used in beer by the medical officers of health or other officers of the local authorities and in addition the establishment of a standard of purity. In his opinion arsenic in malt came from bad fuel and consequently he thought that gas coke should be prohibited. He was not opposed to the use of glucose or invert sugar by brewers, but he thought that the fact of the use of either of these things should be made known.

Mr. HENRY STOPES, maltster's architect and engineer, in the course of examination said that he had invented and designed two-floor malt kilns and had designed and supervised the erection of the largest pneumatic malt house in Britain. In experience it was found that they could not get malt suitable for brewing in this country without bringing the products of combustion into direct contact with the grain. It was necessary to have these products as well as hot air. Kilns had been tried on the German principle, but they had been a failure in this country. He did not think that sufficient evidence had been produced of the presence of arsenic in barley or hops. Superphosphates and other manures added to land would supply a negligible amount, but it had not yet been proved, although experiments had been conducted with a view to testing it, that plants or seeds picked up arsenic in any form. In the various uses of potatoes in Germany, if the tubers picked up arsenic it would certainly have been found No harm had ever been observed in the experiments at Rothampsted with 3¼ cwts. of superphosphates per acre. The loose charges made against manures in this connexion were injurious to the farmers. It was the same also with regard to fuel. The amount of arsenic in coal, coke, charcoal, or other fuel was exceedingly small; in many oven cokes there was absolutely none. He had always advised maltsters to stop the use of gas coke; but that was because of the fumes being disagreeable to the workers. As for charcoal, it was more expensive than the dearest anthracite coal, and he thought that hop-growers who had adopted it should be encouraged to continue its use. The sulphur used by maltsters or hop-growers was not sufficient to carry more than a negligible amount of arsenic through to the beer. He desired to confirm the evidence of other witnesses that arsenic was never found in barley. The use of substitutes for hops was small and now that entry of use by brewers would shortly have to be made it was probable that no risk of poisoning would arise from this source. The use of substitutes for malt was rapidly increasing. It already amounted to 2,000,000 quarters per annum. The extreme cheapness of glucose, sugar, and some of the other adjuncts had led to depreciation in the price of barley and excessive competition had led to the use of inferior fuels by maltsters. As these substitutes did not possess the vital characteristics of barley malt, which constituted the essential element of beer, recourse had necessarily been made to large quantities of powerful antiseptics as preservatives in beer. Witness supported Mr. Read in his advocacy of the establishment of a court of reference and the fixing of standards of purity.

On the conclusion of Mr. Stopes's examination the Commission adjourned.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ANDERSON, JOSEPH, M.B., C.M. Aberd., has been appointed Honorary Surgeon to the Preston and County of Lancaster Royal Infirmary, vice J. A. Rigby, M D Lond., appointed Consulting Surgeon.

ANDREWS, HENRY RUSSELL, M D., B.S. Lond., L.R.C.P. Lond., has been re-appointed Obstetrical Registrar and Obstetrical Tutor to the London Hospital.

AUSTEN, HAROLD, M.D., B S. Lond., M.R.C.S., L.D.S. Eng., has been appointed Assistant Dental Surgeon to the Dental Hospital of London.

BABST, C. T. U., L.R.C.P., L.R.C.S. Edin., has been re-appointed Medical Officer of Health of Willington Quay, Northumberland.

BENSLEY, V. C., M.R.C.S. Eng, L.R.C.P. Lond., has been appointed Third Resident Surgeon at the Somerset Hospital, South Africa.

CADDY, ADRIAN, M.B Lond., L.R C.P. Lond., M.R.C.S. Eng, has been appointed Resident Medical Officer to the Parish Infirmary, Brownlow-hill, Liverpool.

CAMPBELL, P. E, M.B, C.M. Edin., has been appointed Medical Superintendent of Caterham Asylum, Surrey.

CLARK, SYDNEY, M.R C S, Eng, L.R.C.P. Lond., has been appointed Honorary Visiting Medical Officer to the Victoria Home for Invalid Ladies, vice Dr. Chadwick, appointed Consulting Physician.

CRINION, L. A. J., M B., B Ch. R.U.I., has been appointed Medical Officer of Blessington No. 1 Dispensary District in the Naas Union.

DON, JAMES, M.B. Aberd, has been appointed Public Vaccinator of Newcastle-upon-Tyne

EAMES, E S. B., L.R.C P. Lond., M.R.C.S. Eng., has been appointed District Medical Officer to the Honiton Union.

EURICH, F. W., M.D., C.M. Edin., has been appointed Pathologist and Bacteriologist to the Corporation of Bradford.

FARRANT, CHARLES, L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Medical Officer for the St. James's District by the Taunton Board of Guardians, vice Samuel Farrant, resigned.

GRUGGEN, WILLIAM, L R.C P. Irel., L.F.P.S. Glasg., D.P.H. Camb., has been appointed Medical Officer of Health of Tring.

HARRIS, J. H., M.R.C.S. Eng., L S A., D.P.H. Cantab, has been re-appointed Medical Officer of Health for the Borough of Dartmouth.

HILL, CHARLES A., M B., B.A. Cantab, D.P.H. Vict, has been appointed Senior Assistant Physician to the Liverpool Hospital for Consumption and Chest Diseases.

HOOD, N. L., M D., D C. Cantab, has been appointed Honorary Surgeon to the York County Hospital.

HUNT, J. W., M.B., has been appointed Second Resident Surgeon at the Somerset Hospital, South Africa.

LE FANU, G. E. H., M B Aberd, has been appointed Assistant Medical Officer to the Derby Borough Asylum.

MAY, JOSEPH, M.R.C.S. Eng., L.S A., has been re-appointed Medical Officer of Health of the Borough of Devonport.

MOORE, S. G., M.B, Ch.B. Vict., D.P.H. Eng. Conj, has been appointed Medical Officer of Health of Huddersfield.

RAY, J. H., M B, Ch.M. Vict., F.R.C.S. Eng., has been appointed Assistant Surgeon to the Manchester Children's Hospital.

RICHARDSON, S. W. F., M.B., B.S. Lond., F.R.C.S. Eng., has been appointed Senior Resident Surgeon at the Somerset Hospital, South Africa.

RIMMER, J. F, M.B, Ch.B Vict., has been appointed Third Assistant Medical Officer at Leavesden Asylum, Hertfordshire.

SAUNDERS, J. C., L R C.P. Edin., M.R.C.S. Eng., has been appointed Medical Officer of the Bootle Division of the West Derby Union.

SHARP, H. C, M.B., B.C. Cantab, has been re appointed Medical Officer of Health of Truro.

WALDO, F. J., M.D. Cantab., M.R.C.S. Eng., D.P.H. Eng. Conj. Bd., has been appointed Coroner of the City of London.

WIGHAM, W. H, M.B. Durh., M.R.C.S. Eng., has been re-appointed Medical Officer of Health for the South Molton (Devon) Urban District Council and also Medical Officer of the Chittlehampton District by the South Molton Board of Guardians.

WILLIAMS, HERBERT, M.D., L.R.C.P. Lond., M.R.C.S. Eng., D.P.H. Cantab, has been appointed Medical Officer of the Port of London.

WOOD, W. B. H., M.B. Lond., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Medical Officer to the New Sanatorium at Delamere Forest.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BRISTOL ROYAL INFIRMARY.—Anæsthetist and Junior House Surgeon. Also Casualty Officer. Salary at rate of £50 per annum, with board, lodging, and washing.

CARLISLE DISPENSARY.—Resident Surgeon, unmarried Salary £150 per annum, with apartments, not board.

[illegible] Physician Salary £90 per

CH[illegible] Surgeon.

CIT[illegible] Victoria [illegible] ary at rate

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—Junior House Surgeon, unmarried Salary £80 per annum, with board, lodging, and washing

CLINICAL RESEARCH ASSOCIATION.—Assistant in the Bacteriological Department. Salary £150 per annum

COUNTY ASYLUM, Carmarthen.—Junior Assistant Medical Officer, unmarried Salary £130, advancing £10 yearly to £150, with furnished apartments, board washing, and attendance, without stimulants

COUNTY BOROUGH OF BURTON UPON TRENT.—Medical Officer of Health and Public Analyst. Salary at rate of £350 per annum for the Medical Officership and £50 per annum for the office of Public Analyst and authorised disbursements.

COUNTY BOROUGH OF WEST HAM.—Assistant Medical Officer, unmarried. Salary £200 per annum, with board, washing, and furnished apartments.

CUMBERLAND AND WESTMORLAND ASYLUM, Garlands Carlisle.—Senior Assistant Medical Officer, unmarried. Salary £150 a year, rising to £180 with board, lodging &c.

DENBIGHSHIRE INFIRMARY, Denbigh.—House Surgeon. Salary £100, with board, residence, and washing

DENTAL HOSPITAL OF LONDON, Leicester-square.—Assistant Anæsthetists

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—Assistant House Surgeon. Salary £50 per annum, with furnished apartments, board and washing

DORSET COUNTY HOSPITAL, Dorchester.—House Surgeon, unmarried. Salary £100, with board and residence.

EAST SUFFOLK AND IPSWICH HOSPITAL.—Second House Surgeon Salary £80 per annum, with board, lodging and washing

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark bridge-road, S E Senior Resident Medical Officer Salary £70, with board and washing

FISHERTON ASYLUM.—Assistant Medical Officer Salary £150 per annum with board lodging and washing

GENERAL INFIRMARY Leeds.—Resident Casualty Officer Salary £100 a year, with board, lodging, and washing

GLANFORD BRIGG UNION.—Medical Officer and Public Vaccinator Salary £37 per annum, with extras and vaccination fees

GUEST HOSPITAL, Dudley.—Assistant House Surgeon for six months Salary £40 per annum, with residence, board, and washing

HARTLEPOOLS HOSPITAL.—House Surgeon. Salary £100 per annum, with board, washing and lodging

HEXHAM RURAL DISTRICT COUNCIL.—Medical Officer of Health Salary at rate of 200 guineas per annum

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians for six months, with an honorarium of £25.

HOSPITAL FOR SICK CHILDREN, Great Ormond street, London, W C.—Clinical Pathologist and Bacteriologist, non resident, honorarium 60 guineas; also Anæsthetist, honorarium 15 guineas, House Surgeon unmarried, for six months, salary £20, washing allowance £2 10s., with board and residence; and Medical Registrar, honorarium 50 guineas.

HULL ROYAL INFIRMARY.—Junior Assistant House Surgeon. Salary £60, with board and lodging

KING'S COLLEGE, London.—Professor of General Pathology and Bacteriology

LAWN HOSPITAL FOR INSANE, Lincoln.—Assistant Medical Officer Salary £100.

LEICESTER INFIRMARY.—Second Assistant House Surgeon. Salary £80 per annum, with board, apartments, and washing

LONDON COUNTY ASYLUM, Banstead.—Medical Superintendent. Salary £1000 per annum, with unfurnished house, rates, taxes, and water-supply free

LONDON LOCK HOSPITAL, 91, Dean-street, W.—House Surgeon to the Male Hospital. Salary £60 per annum, with board, lodging, and washing

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officers (unmarried) at the Fever and Small pox Hospitals. Salary £160 per annum, rising to £200, with board, lodging attendance and washing Also Assistant Medical Officer (unmarried) at the Asylum, Caterham, Surrey Salary £150 per annum, rising to £170 with rations, lodging attendance, and washing

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Honorary Surgeon for Ophthalmic Department.

NORTH EASTERN HOSPITAL FOR CHILDREN Hackney road, N E.—House Physician for six months. Salary at rate of £80 per annum, with board, residence, and laundry Also House Surgeon for six months Salary at rate of £30 per annum with board, residence and laundry Also Dental Surgeon Salary £100 per annum

NORTH WALES COUNTIES LUNATIC ASYLUM, Denbigh.—Second Assistant Medical Officer Salary £120 per annum, increasing £10 per annum to a maximum to be fixed by the committee with board residence, and washing

NORTH WESTERN FEVER HOSPITAL, Lawn road, Hampstead.—Locum Tenens. Salary at rate of £160 per annum, with board, lodging and washing

NORTHAMPTON GENERAL INFIRMARY.—Honorary Physician.

NOTTINGHAM GENERAL DISPENSARY.—Senior Resident Surgeon. Salary £200 per annum, increasing by £15 every year Also two Assistant Resident Surgeons. Salaries £160 per annum each, increasing by £10 every year, furnished apartments, attendance, light, and fuel Unmarried.

OLDHAM INFIRMARY.—Senior House Surgeon. Salary £100 per annum, with board, washing, and residence; also Junior, £75 per annum, with board, residence and washing

OWENS COLLEGE, Manchester.—Senior and Junior Demonstrator in Physiology Stipends £150, rising to £200, and £100 rising to £150 respectively

PARISH GLENELG.—Medical Officer Salary £120 per annum.

PLYMOUTH BOROUGH ASYLUM.—Assistant Medical Officer, unmarried. Salary £150 per annum rising to £200 per annum, with furnished apartments and board and washing

QUEEN'S HOSPITAL, Birmingham.—House Surgeon Salary at rate of £50 per annum, with board lodging, and washing

ROYAL CORNWALL INFIRMARY.—House Surgeon, unmarried. Salary £100, increasing by £10 a year, with board (excluding stimulants) and apartments.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City road, E.C.—House Physician, for six months. Salary at rate of £60 per annum, with furnished apartments, board and washing

ROYAL SEA BATHING HOSPITAL, Margate.—Locum Tenens as Resident Surgeon for three weeks commencing July 1st.

ROYAL UNITED HOSPITAL Bath.—House Surgeon. Salary £100, with board, lodging and washing

SALOP INFIRMARY.—Assistant House Surgeon. Salary at the rate of £40 per annum with board and washing

ST BARTHOLOMEW'S HOSPITAL Rochester.—Assistant House Surgeon Salary £100 per annum with board, washing &c.

ST MARY'S HOSPITAL MEDICAL SCHOOL Paddington, W.—Demonstrator of Anatomy Salary £70 per annum

ST PANCRAS AND NORTHERN DISPENSARY, 126 Euston road.—Resident Medical Officer, unmarried. Salary £105, with residence and attendance.

ST GILES CAMBERWELL INFIRMARY, Havil street Camberwell.—Third Assistant Medical Officer for one year only Salary £50 with apartments, board, and washing

SCARBOROUGH HOSPITAL AND DISPENSARY.—Senior House Surgeon Salary £100 per annum with residence, board and washing

TEIGNMOUTH HOSPITAL, S Devon.—House Surgeon. Salary £70 a year, with board lodging and washing

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea, S W.—House Physician for six months. Honorarium of £25 and board [illegible] also Surgeon and Assistant Surgeon

WES[illegible] —Third Assistant [illegible] sing to £200 Also [illegible] per annum, with board &c., rising to £100

WORKHOUSE, Brownlow hill, Liverpool.—Assistant Medical Officer (unmarried. Salary £80 per annum with rations and £20 fees

WORKSOP DISPENSARY AND VICTORIA HOSPITAL.—House Surgeon and Dispenser, unmarried Salary £150 per annum, rooms, and attendance.

YORK DISPENSARY.—Resident Medical Officer, unmarried. Salary £110 a year, with board, lodging and attendance.

INDIAN MEDICAL SERVICE.—Examination for twenty one appointments Apply to the Military Secretary, India Office, London, S W

THE CHIEF INSPECTOR OF FACTORIES, Factory Department, Home Office, S W, gives notice of Vacancies for Certifying Surgeons under the Factory Acts at Bethesda, in the County of Carnarvon; at Cromer, in the County of Norfolk, at Loughton, in the County of Essex; at Drumquin, in the County of Tyrone; at Kinlough, in the County of Leitrim; and at Stradone, in the County of Cavan

Births, Marriages, and Deaths.

BIRTHS.

COOK.—On June 22nd at Mengo Uganda Ethel, wife of John Howard
Cook, M S F R C S, of a son.
Crossbrook-street Cheshunt, Herts the
GREENE.—On June 20th, at
wife of W A. Greene M R C S E, of a son (stillborn)
Killeshin House, Upwell, Cambs, the
JAMESON.—On June 22nd at
wife of J Elliott Jameson B.A M.B T C D of a daughter
wife of G Lajus Kemp,
KEMP.—On June 24th at Worksop Notts, the
M.D Lond., of a son
Camden road, London, N W, the wife of
KNAGGS.—On June 24th at
H. V Knaggs M.R.C S, of a daughter
Belmont, Muswell hill road, Highgate,
MANNINGTON.—On June 24th, at
the wife of Frank Mannington, F R C S Eng, of a daughter
Brechin, N B, on the 18th inst, the
McNAIR SCOTT.—At Auchenreoch
wife of R F McNair Scott, B A. Camb., M B, Ch.B Edin., of
a son
Croindene, Wellesley road, Croydon, the
REDFERN.—On June 19th, at
wife of John J Redfern, M.A., M.D, of a son
the wife of F Fowler
WARD.—On June 14th at Berners-street, Ipswich
Ward, M B, B C, of a son.

MARRIAGES

APPLETON—SERCOMBE.—On June 18th, at St. Andrew's, Wells-street,
by the Rev T Anderson of St. Stephen's Bournemouth, James
Enderby Appleton M R C S., L R C P, to Emily, daughter of the
late Edwin Sercombe
[illegible] t St. Stephen's Church Battersea,
[illegible] Evans [illegible]
[illegible] at St. Patrick's Church, Soho-
[illegible] Colonel Sir Thomas Gallwey,
[illegible] ward, widow of the late Captain
[illegible] ry

DEATH.

David Shier,
SHIER.—On June 16th at Claremont-terrace, Exmouth, aged 85.
M D., late Inspector of Estates Hospitals, British Guiana

N B.—A fee of 5s. is charged for the insertion of Notices of Births Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

"MEDICAL TESTIMONIALS TO QUACKERY."

To the Editors of THE LANCET.

SIRS,—The explanation which Dr. Burrow and myself offer in regard to your comments in THE LANCET of June 22nd, p. 1808, headed "Medical Testimony to Quackery," is as follows. The man in question called on us personally at our own houses introducing himself as a corn-cutter. He produced a book containing some hundreds of testimonials from medical men in regard to corn-cutting; we added our names. We had no suspicion that the man was anything more than what he professed to be, or that the testimonials were to be used as advertisements, either in the local papers or in any other unbecoming manner. No one was more surprised than we were to see our names in the advertisement column of the *Lancaster Observer* of June 7th, palpably recommending a man who treated "varicose veins, fungous tumours, ingrowing nails, &c." The same day we consulted a solicitor who, on the 12th inst., had in his possession a written guarantee from Mr. S. that future publication would cease. They certainly have not reappeared in this district. We were thus the unconscious victims of a quack, but we have done all in our power since to prevent our names being connected in any way with him. On behalf of Dr. Burrow and myself,

I am, Sirs, yours faithfully,

W. DODGSON BARROW.

Dalton-square, Lancaster, June 26th, 1901.

To the Editors of THE LANCET.

SIRS,—You will find below the names of two of the four medical men whom you attacked in the last issue of your paper under the above heading and whose names you so mercifully withheld. You say that we must be trusting and unsophisticated and that we are guilty of conduct requiring explanation. Altogether you seem to have bottled up a considerable store of virtuous indignation. You publish this attack in your widely-read journal without having in any way made yourself acquainted with the facts of the case; you trusted entirely to the evil disposed person whom you refer to as your "sour correspondent." We ask you to publish our reply to that attack, not on account of any rule of medical etiquette, but as a matter of justice and fair-play. The medical men of this district understand exactly the conditions under which these testimonials were given and the good feeling that exists amongst the members of the profession here is not likely to be disturbed by the efforts of your "sour correspondent." We are but poor general practitioners but we yield to no one in the desire to uphold the honour of our profession. We do not think its status is likely to be raised by medical men making themselves ridiculous by slavishly adhering to some supposed rules of medical etiquette which, if they exist, are manifestly absurd and silly. If a man cuts our corns, nails, or hair, and he does it well, or if a man supplies us with good bicycles or motor-cars, we see no objection to testifying to it, even though we do belong to the medical profession. The advertisement in the *Lancaster Observer* was highly objectionable and how it was that our names appeared in it admits of a very simple explanation. We are not going to give you that explanation and we are perfectly indifferent to any opinion that you may now form on the subject.

We are, Sirs, yours truly,

PATRICK F. MANNIX,
BERTRAM W. HOGARTH.

Lancaster, June 22nd, 1901.

*** "A sour correspondent" should have read, had it been properly printed, "*as our correspondent*."—ED. L.

"THE HAGEY TREATMENT FOR INEBRIETY."

To the Editors of THE LANCET.

SIRS,—Could any of your readers give me information as to the utility of the "Hagey treatment for inebriety, &c."? A patient of mine of moderate means is urged by his relatives to try "the cure," the fee for which is 25 guineas, payable beforehand. I should not like to see him fleeced of his money.

I am, Sirs, yours faithfully,

M.D.

June 24th, 1901.

CATERPILLAR RASH.

To the Editors of THE LANCET.

SIRS,—A few days ago two children were playing with the hairy caterpillar of which I inclose two specimens. They both awoke next day with a rash composed of little vascular papules, accompanied with considerable irritation. While playing with the caterpillars the elder child had worn gloves and in her case the rash was confined to the face and neck, for, as it was a windy day, she kept brushing her long hair back from her eyes, and she complained almost immediately of smarting in the eyelids; the younger child, being ungloved, had his hands covered with the rash, besides a patch on his neck and cheek where he might have rubbed them. They had both being playing with other kinds of caterpillars for several weeks without any ill effects. Though this is the third day, the rash has scarcely begun to subside, and the practitioner who attended them says that the rash has some resemblance to the early stage of small-pox. T caterpillar was swarming on the may-trees during the first wee June, and as it is clear that the poison was conveyed merely by to and the insects are very tempting to children it seems worth whil call public attention to the matter.

I am, Sirs, yours faithfully,

G. I. THOMSO

Northampton, June 26th.

*** The larvæ inclosed by our correspondent are those of the g tail or yellow-tail moth. The popular name of the caterpillar, in south of England at least, is "palmer worm." The urtica property of these larvæ, or rather of the hairs with which the adorned, is well known to entomologists, although we c call to mind any medical book in which the rash is mentio The scientific name of the moth is Liparis Auriflua. The urtica property is probably purely mechanical, for the chrysalis and cocoon which also contain the hairs give rise to the same effect, will also the moth when just out of the chrysalis. The process caterpillar of Southern Europe acts in the same way, as also doe large hairy spider, the mygale, found in South America and West Indies.—ED. L.

THE ATTENDANCE OF VOLUNTEER MEDICAL OFFICERS CAMP.

To the Editors of THE LANCET.

SIRS,—In answer to the query of "A Volunteer Medical Officer" THE LANCET of June 15th, p. 1738, perhaps you will kindly publish the following information. Before going to camp the commanding of a regiment should send to the senior medical officer asking to detail medical officers for duty in camp. The senior me officer then allocates the days for duty to the various me officers under his orders, having regard, as far as possible, to wishes and requirements of those who are senior in rank in the place and then to the juniors or more recently appointed men. senior medical officer of the battalion is practically responsible the health of the regiment in camp.

I am, Sirs, yours faithfully,

SURGEON-LIEUTENANT-COLONEL.

June 17th, 1901.

THE DESCENT OF MAN.

WAR is sometimes said to be brutalising, but the following delig story, which our contemporary the *Westminster Gazette* publicity to in its issue of June 24th, shows a degradation in stro which may well "stagger humanity":—

> "It is stated that a young officer at the front recently home to his father: 'Dear Father,—Kindly send me £50 at lost another leg in a stiff engagement, and am in hospital with means.' The answer was: 'My dear Son,—As this is the fo leg you have lost, according to your letters, you ought to be ac tomed to it by this time. Try and wobble along on any others y may have left.'"

◆

K.—We think our correspondent may give the solicitors any infor tion which he would be bound to give on oath if subpœnaed, b will be well to give this information verbally and not in writing

Robin.—Our correspondent will get the information which he req if he will write to the Secretary, Royal College of Surg Edinburgh.

Medical Diary for the ensuing We

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (1st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.) Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), Lo Throat (2 P.M.).

TUESDAY (2nd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), minster (2 P.M.), West London (2.30 P.M.), University C (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. M (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London T (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. 2.30 P.M.), Throat, Golden square (9.30 A.M.).

WEDNESDAY (3rd).—St. Bartholomew's (1.30 P.M.), University C (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's C (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Sam (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Nor Central (2.30 P.M.). Westminster (2 P.M.), Metropolitan (2.30 London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-s (9.30 A.M.).

THURSDAY (4th).—St. Bartholomew's (1.30 P.M.), St. Tho (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Mid (1.30 P.M.), St. Mary's (2.30 P.M.), Soho square (2 P.M.), North London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gy logical, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Th Golden-square (9.30 A.M.).

ATURDAY (6th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.),

SOCIETIES.

EDNESDAY (3rd).—OBSTETRICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Dr. Lockyer, Dr. Alcock, Dr. Fairbairn, and others. Paper: Mr. J. P. Maxwell: On Spontaneous Rupture of the Uterus in Placenta Prævia

RIDAY (5th).—WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, Hammersmith-road, W.).—5 P.M. Ordinary Meeting. 5.15 P.M. Annual General Meeting.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M.

Lesion of the Cord.—Dr

urs.—Mr. Barnard: Calcified

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

ONDAY (1st).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. T. C. Fox: Consultation. (Skin.)

JESDAY (2nd).—ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. H. Head: On Certain Mental States associated with Visceral Di

MEDICAL GE nies-street, W.C.).—4 P.

EDNESDAY POLYCLINIC (22, Cheni son: Consultation

LONDON HOSPITAL MEDICAL COLLEGE (Anatomical Theatre of the College).

Heart Disease.

IURSDAY (4th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Consultation. (Surgical.)

—4 P.M.

gen Ray

IDAY (5th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. D. Grant: Consultation. (Ear.)

EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only; AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index and Title-page to Vol. I. of 1901, which is completed with the issue of to-day, will be given in the next number of THE LANCET.

VOLUMES AND CASES.

VOLUMES for the first half of the year 1901 will be ready shortly. Bound in cloth, gilt lettered, price 18*s*., carriage extra.

Cases for binding the half-year's numbers are now ready. Cloth, gilt lettered, price 2*s*., by post 2*s*. 3*d*.

To be obtained on application to the Manager, accompanied by remittance.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them! Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, MR. CHARLES GOOD, THE LANCET Offices, 423, Strand, London, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 27th, 1901.

Date	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall	Solar Radia in Vacuo	Maximum Temp. Shade	Min. Temp	Wet Bulb	Dry Bulb	Remarks at 8.30 a.m.
June 21	30·06	S.S.W.	...	122	80	56	61	64	Cloudy
" 22	29·91	E.	0·39	108	77	59	60	62	Cloudy
" 23	29·85	W.	...	112	70	61	60	62	Cloudy
" 24	30·12	S.W.	0·01	101	69	51	66	61	Cloudy
" 25	30·37	S.E.	...	113	73	53	65	61	Hazy
" 26	30·38	N.E.	...	114	77	55	56	62	Hazy
" 27	30·29	E.	...	118	74	56	56	63	Fine

During the week marked copies of the following newspapers have been received: *Leeds Mercury, Sanitary Record, Liverpool Daily Post, Yorkshire Post, Shanklin Gazette, Bristol Mercury, South*

land Herald, &c., &c.

Communications, Letters, &c., have been received from—

A.—Messrs. Allen and Hanburys, Lond.; Messrs. Armour and Co., Lond.; Mons. J Astier, Asnières; A. W. B. Association for Pure Vaccine Lymph, Lond., Secretary of; Dr. Alcantara, Venezuela; Association for Compulsory Registration of Midwives, Secretary of.

B.—Major W. J. Buchanan, I.M S., Bengal; Bath Urban Sanitary Authority; Bucklow Rural District, Medical Officer of Health of; Dr. R L Bowles, Lond.; C. Birchall, Ltd., Liverpool; British Medical Association, Cheltenham, Hon. Secretary of; Bristol Royal Infirmary, Secretary of; *Birmingham Daily Post*; Messrs Burroughs, Wellcome, and Co, Lond., Messrs J. and H. Bell, Nottingham.

C.—Dr. A. Charpentier, Uxbridge; City of Westminster, Medical Officer of Health of; Mr. Stephen Coleridge; Chester General Infirmary, Secretary of; Clayton Hospital, Wakefield, Secretary of; Dr. O. J. Currie, Pietermaritzburg; Mrs C.; Carlisle Dispensary, Secretary of, City Advertising Agency, Lond., Messrs. J. and A. Churchill, Lond; Mrs. Campbell, Barking; Messrs. Crossley and Co., Lond.; Dr. Thompson Campbell, Bridge of Weir, *City Press*, Editor of; Mr. E. M. Corner; Dr. E F. Cyriax, Edinburgh; Mr. F W. Collingwood, Lond.; Complex; Chemische Fabrik von Heyden, Radebeul, Germany, Dr. M D Custer, Ashley, U.S.A.

D.—Mr. C. Darke, Lond.; Mr. H. J. Dunn, South Croydon; Dorset County Hospital, Dorchester; Mrs. Davidson, Sydenham; Messrs. A. De St. Dalmas and Co., Leicester; Messrs. Dawson and Sons, Lond.

E.—Messrs G. P. Englehard and Co., Chicago, U.S.A.

F.—Fourteenth International Congress of Medicine, Madrid, Secretary of; Dr. T. Fischer, Bristol; Mr. W. C. Finch, Salisbury; Fosco Manufacturing Co, Liverpool.

G.—Mr. T. B. Greene, Merthyr; Mr. C. H. Garland, Barnes, D W. H Gilbert, Baden Baden; Great Eastern Railway Co., Continental Traffic Manager of; Messrs. Gilbert and Wood, Lond.; Gordons Advertising Agency, Lond.; Glanford Brigg Union, Clerk of.

H.—Miss V. S. Held, Finistèrre; Messrs. Hirschfeld Bros., Lond.; Hartlepools Hospital, Assistant Secretary of; Messrs Hatchman and Co, Lond.; Mr. R. Howarth, Wolverhampton; St. Helen's Cable Co., Warrington; Hospital of St. John and St. Elizabeth, Secretary of Dr Braine Hartnell, Cotswold; Dr. T. E Hayward, St. Helen's; Mr. A. R. Henchley, Woolwich; Mr. H. E. Hooper, Lond., St. Henry Convalescent Fund, Secretary of; Mr. E G. Hawkings, Plymouth; Mr. W. B. Hallowes, Newark.

I.—Institution of Mining Engineers, Secretary of.

J.—Rev. S E. Jarvis, Lond.; Dr. W. Jamison, Penrhiwceiber; Dr. W. D. Johns, Parkstone; J. S.; Mrs Jocelyn, Margate; Dr. L. Jones, Brighton.

K.—Mr C. B. Keetley, Lond.; Mr. C. Kellerman, Lond.

L.—Mr. W. W. Leigh, Treharris; Messrs. J. Lyon and Co., Lond; Mr. Langley, Stamford; Leeds General Infirmary, Manager of; Dr. D Lee, Kettering; Messrs. Lea Bros, Philadelphia.

M.—Dr. J. Marnoch, Aberdeen; Messrs. Macmillan and Co., Lond. Mr R W Marston Lond, Mr. C. Mathew, Teignmouth; Maltine Manufacturing Co, Lond, Mr. W. McGee, Dublin; Dr. R. F. Moorhead, Bristol Marconi's Wireless Telegraph Co., Lond.; Midland Medical Union, Hon Secretary of; Dr. A. McPhedran, Toronto; Messrs. Moore and Co., Lond.; M.P. Pipe, Ltd, Lond.

N.—Messrs. Neyroud and Son, Lond; Mr. J. C. Needes, Lond., Mr. H. Needes, Lond.

O.—Oldham Infirmary, Secretary of; Mr. T. McD. O'Farrell, Jersey.

P.—Dr. A. M. N. Pringle, Salford; Mr. Y. J. Pentland, Edinburgh; Dr. L A. Parry, Hove Pater et Medicus; Mr. Chas. Prideaux, Shaftesbury.

Q.—Queen's Hospital, Birmingham, Secretary of.

R. Dr. Nathan Raw, Liverpool; *Revue Internationale de Thérapie Physique*, Rome; Robin; Mr. R. Redpath Newcastle-on Tyne Dr. W. Russell, Edinburgh; Rebman, Ltd., Lond., Rossclare Sanatorium, Ireland, Hon Secretary of, Rhondda Urban District, Medical Officer of Health of, Royal Free Hospital, Secretary of; Mr. F. H. Reed, Andover; Messrs. Reynolds and Branson, Leeds; Dr. C. Reinhardt, Ipsden; Royal Medical Benevolent College, Lond.

S.—Miss C Smith, Lond.; Messrs. J and S Samuels Liverpool; Messrs. Swan Sonnenschein and Co., Lond. St. Mary's Hospital Medical School, Lond., Secretary of. Society of Arts, Secretary of; Messrs. Squire and Sons, Lond.; St. Bartholomew's Hospital, Rochester; Messrs. E Shaw and Co., Manchester; Mr. R D Spillane, South Norwood; Society for Prevention and Cure of Consumption, Durham, Secretary of; Sell's Advertising Offices, Lond.; Messrs G Street and Co., Lond.; Mr. D. W. Scott, Guys; Mr. C G. Stuart Monteath; Mary Islington Infirmary, tary of; Scholastic, Association, Lond.

T.—Mr. W. H. Thomas, Bri Tabloid.

U.—Mr. F. W. Underwood, G cester; Universal Cookery Food Association, Director of

V.—Mr. W. Vero, Dulwich; G. Vickers, Lond.

W.—Mr. G. Wherry, Cambrid Workson Dispensary, of; Dr. A Wilson, Dr. A. Wauchope, Messrs. Whitbread and Lond.; Mr. F F. Welling Lond.; W. C. Norwich; Wad Asylum, Sheffield, Secretary

Letters, each with enclosure, are also acknowledged from—

A.—Mr. C. L Ashby, Thames Ditton; A. W. L. J.; A. H.; A D.; A. R. G.; A. D; A., Ilford.

B.—Mr. F. Brentnall, Abergele; Messrs. Baiss Bros. and Stevenson, Lond.; Messrs. J. Beal and Son Brighton; Mrs B, Borough of Salford, Treasurer of.

C.—Dr. A Collie, Foecy, France; Messrs. Cassell and Co, Lond.; Messrs. Condy and Mitchell, Lond.; C. R. G.

D.—Discount Motor Car Co., Lond; Delta, Newcastle on Tyne; D. F.; Mr L. B. Dhargalker, Bombay; Doctor, Lond.; Dr. D.; Delta, Bristol.

E.—Mr. Elias, Neath; E. H. B.

F.—Dr. A Forsyth, Okehampton; Dr. G B. Flux, Lond.; F. B N.; Mr. E. J. Foulston, Liverpool.

G.—Mrs. E Godfrey, Eversley; Greenock Infirmary, Secretary of; G. A B., Messrs. Giles, Schacht, and Co, Lond.; Surgeon C B Gittings, H.M.S., *Monarch*, Cape Town, G. N. P., Pontypool.

H.—Mr. A. Hind, Aston; H. H. B.; Mr. J. Heywood, Manchester; Messrs. C. J. Hewlett and Son, Lond., Hulme Dispensary, Manchester, Secretary of, Hospital for Sick Children, Newcastle-on-Tyne; H. D.

J.—Mr J Jones, Dolgelly; Mr. A. R. Joll Bristol; J. M. B.; Messrs. Jakeman and Carver, Hereford J. J. S; J. M. C.; J W. D; J. W. R.; J. E. B; Dr. P. S. Jakins, Lond.

K.—Dr. G. L. Kemp, Worksop.

L.—Mr. J. P. Llewellyn, Lond.; Leicester Infirmary, Secretary of Mr. R. J. Lyle, Omagh; MM. H. Le Soudier, Paris; L. G D.; Locum, Handsworth.

M.—Dr. S. Messulam, Medicus, Devonport; Med Blackburn, Medicus, Liv M.D, Newcastle-on-T Mr. J. D. Murdoch, Queens Mr. A. A. MacGregor, Manchester Medical M. R R.; M. S. M. D., M. J. O.

N.—Mr. M. J Nolan, Downpa Mr. T. Nixon, Worcester.

O.—Dr. P. T. O'Sullivan, Cork.

P.—Dr. E. L. Phillips, Ystrad; T. Pabst Bath; Practice, Edburgh; P. S W.; Mr. J. H. Lower Wallop, Mr. P. H. Sandon, Canada.

R.—Miss Ringwood, R. A. D.; R. N. G.; R. C. Dr. R.

S.—Dr. R. Shiels, Birmingham Mr. J. Scanlon, Cork; W. H. Smith and Son, ham Mr A. F. Sabin, Swansea Union, Clerk of, Startin, Lond. Mr. J. Ged Scott, Funchal, Madeira; J. A. Shaw-Mackenzie, Dr. E W. Skinner, Rye J. E. P. Shera, Chatham; Dr. Stanley Hospital, Liverpool; J. Sampson, York; Dr. M. Sykes, Barnsley; Dr. Clare.

T.—Messrs. J. Turner and Queensferry; T. L. L.; T. P.

V.—Mr. B Vencatarao, India; Vinolia Co, Lond.

W.—Dr. F. R. Wainwright, Dr. J. H. Waterhouse, Maltby Dr. D. Wardrop, Dundee W. Mr. C. William, Lond.; Dr. J. Wilson, Blantyre; Wright, Layman, and Umney Lond.; Mr. M. Williams, Cardiff; Mr. A. H Wade, Little Ma West Bromwich Union, Clerk of W. H. F.; W. F. D.; Wilson and Son, Lond.

EVERY FRIDAY. **THE LANCET.** PRICE SEVENPENCE.

SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.	£	s.	d.	TO THE COLONIES AND ABROAD.	£	s.	d.
One Year	£1	12	6	One Year	£1	14	8
Six Months	0	16	3	Six Months	0	17	4
Three Months	0	8	2	Three Months	0	8	8

Subscriptions (which may commence at any time) are payable in advance.

ADVERTISING.

		£	s.	d.
Books and Publications ...	Seven Lines and under	£0	5	0
Official and General Announcements	Ditto	0	5	0
Trade and Miscellaneous Advertisements	Ditto	0	4	6
	Every additional Line	0	0	6

Quarter Page, £1 10*s*. Half a Page, £2 15*s*. An Entire Page, £5 5*s*.

Terms for Position Pages and Serial Insertions on application.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. tisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris.